Dwaraka Doss Goverdhan Doss Vaishnav College

(Autonomous)

Arumbakkam, Chennai - 600106

College with Potential for Excellence
Linguistic Minority Institution
Affiliated to University of Madras

Criterion – I

Curricular Aspects

Q L M

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Arumbakkam, Chennai 600 106

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by the Institution

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- Course File
- Approved Programme Outcome and Programme Specific Outcome

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Board of Studies – Constitution & Minutes

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PG AND RESEARCH DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS (M.C.A.)

MCA - SHIFT I – BOS

2020 - 2021

PRINCIPAL
Dwaraka Doss Goverdhan Doss
Vaishnav College
Arumbakkam, Chennai - 600106.

D.G. VAISHNAV COLLEGE (AUTONOMOUS)

DEPARTMENTOF MCA

BOARD OF STUDIES Meeting (MCA)

Minutes of the meeting of the BOS held on 22-10-2020 to pass the syllabus of Two Year MCA Programme effective from the academic year 2020-2021.

Members Present are:

1. Dr. T. SANTHANAM	Chairman
2. Dr. S. GOPINATHAN	University Nominee
3. Dr. T.NIRMAL RAJ	Academic Expert-1
4. Dr. V.V. RAMALINGAM	Academic Expert-2
5. Mr. MATHIVANAN ELANGOVAN	Industry Expert
6. Mr. PRASHANTH PAREKH	Alumni

The Faculty members of the Department present are:

1. Dr. T. VELMURUGAN
2. Dr. S. SANTHOSH BABOO
3. Dr. R. ANANDHI
4. Dr. K. ANGAYARKANNI
5. Dr. T. SRIDEVI
6. Ms. A.S. THENMOZHI
7. Ms. M.P. SUKASSINI

The members met and discussed in detail about the curriculum to be implemented from the academic year 2020-2021 for the Two year MCA Programme (as per AICTE direction) and its relevance to the industry requirements and employability and resolved the following:

1. The suggestions given by the University nominee, academic experts, industry experts and alumni are considered.
2. Since MCA curriculum is compressed to two years from three years, Commerce subject is not be a part of MCA curriculum from the academic year 2020-2021 onwards
3. Introduction of courses relevant to industry and research is appreciated by all members.
4. Important core and elective papers are retained for the benefit of the students
5. At least one certificate course (**not less than 8 weeks**) offered by NPTEL at PG level is made mandatory for the students during the course of study.
6. Spoken tutorial offered by IIT-Mumbai is included in every semester. The subjects will be decided based on the offering by IIT Mumbai from time to time.
7. Statistics course is given as Non-Major Elective in first semester.
8. Any other trending courses will be included as Electives in future.

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Associate Professor & Head
P.G. & Research Department of Computer Applications
Dwaraka Doss Goverdhan Doss
Vaishnav College
Arumbakkam, Chennai - 600 106.

9. This syllabus can be continued for at least three academic years without any major changes.
10. The members unanimously approved the syllabus of MCA Curriculum.
11. The practical exposure to AI and Robotics, IOT, DEVOPS and other related technologies suggested by experts will be duly carried out to the interested students by suggesting them the courses offered online by premier institutes that will help them to upgrade their skills in the chosen domain and brighten their career prospects.

Internal Members:

Sl.No	Faculty Name	Signature
1	Dr. T. VELMURUGAN	
2	Dr. R. ANANDHI	
3	Dr. K. ANGAYARKANNI	
4	Dr. T. SRIDEVI	
5	Ms. A.S. THENMOZHI	
6	Ms. M.P. SUKASSINI	

External Members:

1	Dr.S. Gopinathan, University Nominee, Professor, Department of Computer Science, University of Madras, Guindy Campus, Chennai-25. Mail: gnathans2002@gmail.com Mobile: 94436 27956/79048 37870	
2	Dr.T.Nirmalraj, Academic Expert-1, HOD, Department of CSA, SCSVMV, Enathur, kanchipuram 631 561. Mail: tnirmalraj@yahoo.com/tnirmalraj@kanchiuniv.ac.in Mobile: 9498028711	

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3	Dr. V. V. Ramalingam, Associate Professor, Department of Computer Science and Engineering, SRMIST, Kattankulathur. Mail: ramalinv@srmist.edu.in Mobile: 9444181684/8667342625	
4	Mr. MathivananElangovan, Industry Expert, Founder and CEO, MEBOT Robotics, Sholinganallur, Chennai.	
5	Mr. Prashanth Parekh, Alumni, Sr. Director – Technology, Mail: pkh_p@hotmail.com Mobile: 98402 24694	

Chairman:

1	Dr. T. Santhanam, Chairman, Associate Professor and Head, Deparment of MCA, D.G. Vaishnav College.	T. Santhanam

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Associate Professor & Head
Department of
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List of Courses relevant to Local, Regional, National and Global needs

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) of the Programme offered by the Institution.

Global Needs				
Sl No	**Programme Code**	**Programme Name**	**Course Code**	**Course Name**
1	3	BBA	03625	Information Management
2	8	B.Sc., Mathematics	8318	Mathematical Statistics
3	9	B.Sc., Physics	09517	Solid State Physics
4	9	B.Sc., Physics	09620	Relativity and Quantum Mechanics
5	9	B.Sc., Physics	09621	Nuclear and Particle Physics
6	10	B.SC., Chemistry	10517	Analytical Chemistry
7	10	B.SC., Chemistry	10515	Inorganic Chemistry I
8	11	B.Sc., Biochemistry	11519(A)	Priciples of Biotechnology
9	13	B.Sc., Plant Biology & Plant Biotechnology	13623	Plant Biotechnology
10	14	B.Sc., VISCOM	14418	Digital Cinematography
11	14	B.Sc., VISCOM	14523	Audio Visual Techniques
12	14	B.Sc., VISCOM	14313	Computer Graphics
13	15	B.Sc., Computer Science	15624	Data Mining
14	15	B.Sc., Computer Science	15621	Programming in PHP
15	15	B.Sc., Computer Science	15622	Python Programming,
16	20	M.Com	20314	Fundamentals of Information Technology
17	20	M.Com	20313	India's foreign trade and Investment
18	20	M.Com	20206	Service Marketing
19	20	M.Com	20104	Logistics and supply chain management
20	21	M.Sc., Mathematics	21318	DIGITAL LOGIC FUNDAMENTALS
21	21	M.Sc., Mathematics	21424	ALGORITHMS
22	21	M.Sc., Mathematics	21317	NUMBER THEORY & CRYPTOGRAPHY
23	21	M.Sc., Mathematics	21102	REAL ANALYSIS-I
24	21	M.Sc., Mathematics	21103	PROBABILITY THEORY
25	21	M.Sc., Mathematics	21208	REAL ANALYSIS-II
26	21	M.Sc., Mathematics	21210	MATHEMATICAL STATISTICS

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Global Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
27	21	M.Sc., Mathematics	21211	FUZZY SETS & THEIR APPPLICATIONS
28	21	M.Sc., Mathematics	21313	COMPLEX ANALYSIS-I
29	21	M.Sc., Mathematics	21314	TOPOLOGY
30	21	M.Sc., Mathematics	21418	COMPLEX ANALYSIS-II
31	21	M.Sc., Mathematics	21419	FUNCTIONAL ANALYSIS
32	21	M.Sc., Mathematics	21103	PROBABILITY THEORY
33	21	M.Sc., Mathematics	21210	MATHEMATICAL STATISTICS
34	22	M.Sc., Physics	22313(A)	Elective II - Paper 15 - Relativistic Quantum Mechanics
35	22	M.Sc., Physics	22314	Materials Synthesis and Charecterization
36	22	M.Sc., Physics	22204	Advanced Electronic Circuits
37	24	M.Sc., Biochemistry	24317	Bioinformatics
38	24	M.Sc., Biochemistry	24206	Analytical Biochemistry
39	24	M.Sc., Biochemistry	24208	Molecular Biology
40	24	M.Sc., Biochemistry	24419	Nutrigenomics
41	24	M.Sc., Biochemistry	24105(C)	Stem cell Biology
42	24	M.Sc., Biochemistry	24418	Immunology
43	25	M.Sc., Biotechnology	25317	Core Paper – 10: Bioinformatics
44	25	M.Sc., Biotechnology	25211(B)	Elective Paper – 3B Clinical Trials
45	25	M.Sc., Biotechnology	25210(C)	Elective Paper – 2C DNA Barcoding Technology
46	25	M.Sc., Biotechnology	25210(A)	Elective Paper – 2A Forensic Science
47	25	M.Sc., Biotechnology	25420	Extra Disciplinary – 2: Research Methodology, Bioethics & Biostatistics
48	25	M.Sc., Biotechnology	25319(B)	Elective Paper – 4B Nano Biotechnology
49	26	M.Sc., MicroBiology	26316	Recombinant DNA Technology
50	27	M.Sc., Computer Science	27321	Cryptography
51	27	M.Sc., Computer Science	27318	Big Data analytics
52	27	M.Sc., Computer Science	27319	Cloud Computing
53	27	M.Sc., Computer Science	27209	Digital Image processing

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Global Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
54	27	M.Sc., Computer Science	27212	Data warehousing and data mining
55	28	M.Sc., Information Technology	28318	Software testing
56	30	MBA	30428	Retail management
57	30	MBA	30213	Management Information systems
58	30	MBA	30323	Integrated supply chain management
59	30	MBA	30426	Transportation and warehousing management
60	30	MBA	30425	International Logistics and management global supply chain
61	34	MA HRM	34317	Corporate Social Responsibility
62	36	B.Sc., (Maths with CA)	36314	Multimedia
63	42	B.A., Criminology	42623	CONTEMPORARY FORMS OF CRIME
64	47	B.Sc., Psychology	47311	Experimental Psychology
65	47	B.Sc., Psychology	47516	Psychological Research and Measurement
66	62	B.Com Finance & Taxation	62520	Information Management
67	62	B.Com Finance & Taxation	62415	International Marketing
68	63	B.Com., Marketing Management	63302	Internet and Digital Marketing
69	63	B.Com., Marketing Management	63402	International Marketing

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Semester: 4	Course Code: CORE XII	Course: International Taxation and Technology

LEARNING OUTCOME: On learning the course, the students will be able to know the importance of Taxation at global level and qualify for International Taxation Examination & Obtain license to practice as international tax practitioners.

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Enable to qualify for international taxation examination and obtain license to practice as international tax consultants.
CO2	Describe federal tax legislative process, jurisdiction and tax system
CO3	Compute alternate minimum tax and recognition of income for foreign nationals
CO4	Apply the concept of filling status and exemptions, due dates extension and tax calculation
CO5	Ascertain property transactions on the basis of types of assets, holding period, sale and exchange
CO6	Assess income/losses in case of partnership firms and change of ownership and termination.
CO7	To determine earning and profits in case of corporations, preparation of forms and schedules and tax calculation

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3		2	1		1	1
CO2	3			2	2	2	
CO3	2		3		2	1	3
CO4	2		3	3			3
CO5			2	2			2
CO6	1			3	3		2
CO7	2		1	2		2	1

Mapping of CO v/s PSO:

	PSO1	PSO2	PSO3	PSO4
CO1		2		2
CO2		3	2	2
CO3		2		3
CO4		1	1	3
CO5		3	3	1
CO6		2		2
CO7		2	2	1

Semester	IV
Subject	CORE XII – INTERNATIONAL TAXATION & TECHNOLOGY
Maximum Marks	CIA- 40Marks ESE-100 Marks
Credits/ Instruction Hours	4 Credits / 6 Hours per week
Exam Duration	3 Hours
L:T:P:S	3:1:1:1

	CONTENT OF THE MODULE	CO
	Federal Tax legislative process - IRS – Jurisdiction – Tax System – Types of Tax Payers. Overview of US GAAP – comparison. Accounting methods- Recognition – valuation – long term contracts - Tax election types – Authoritative hierarchy-**Commutations with clients.**	**1& 2**
	Individual Taxation - Concept – Filing Status and Exemptions - Gross income - Capital gains and losses - Inclusions and Exclusions - Adjustment and Itemized deductions - Passive activity losses -Loss limitations – Savings and retirement plan benefits Tax computation and credits – Alternative minimum tax – Income recognition for Foreign Nationals Simulations -Filing Forms and schedules — due dates – extension – tax calculation	3
	Property Transactions - Types of assets – basis and holding periods – depreciation, depletion and amortization – Sale and exchange (Taxable and nontaxable) - gains and losses – Netting process – Related party transactions. Estate and Gift taxation - Transfers - Annual exclusion and deductions - determination – deduction – Unified credit. Simulations -Filing Forms and schedules — due dates – extension – tax calculation	4 & 5
	Partnerships - determination of income /losses - Basis of partner interest and assets contribution to partnership - Election – Transaction between partner and partnership - Liabilities treatment – Distribution of assets – change in ownership - liquidation - termination Simulations -Preparation of Forms and schedules — due dates – extension – tax calculation	6
	C CORPOATION - Determination – computation - earnings and profits - AMT- losses treatment – Entity transactions- contribution and distribution – Consolidation S CORPOATION - Eligibility and election – income determination – losses – other stated items – basis of shareholders interest - Entity transactions- contribution and distribution – Built in gains tax Simulations - Preparation of Forms and schedules — due dates – extension – tax calculation	7

Pattern for End Semester Examination

End Semester Questions Pattern	Total Questions	To Answer Questions	Marks Per Question	Total Marks
Section – A	10	10	2	20
Section – B	10	5	7	35
Section – C	5	3	15	45
Total Marks				**100**

*Equal weightage to be given to all the 5 units

Weightage based on Bloom's Taxonomy (for End Semester Examinations–ESE)

Remember	Understand	Apply	Analyze	Evaluate	Create
20 %	30%	25%	15%	10%	-

Reference Books:

1. Jeffrey Helewiz, A Guide to Federal Taxation
2. Robert Hissey, Practical Guide to US Taxation, WoltersKluver

Reference Books:

1. US Tax Masters Guide, WoltersKluver
2. Reference Material, Ernst & Young

Note: Latest edition of the books to be referred.

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DEPARTMENT OF BCOM – FINANCE & TAXATION-AY 2020-21-EVEN SEM

WORK LOAD

SECOND SEMESTER

Sl.No	Course Component	Name of the Course	Instructional Hours	Faculty (in-charge)
1	Part – I	Language Courses	4 + 2*	LANG
2	Part – II	English	4	ENG
3	Part – III	**Core III** Financial Accounting	5	RS
4	Part – III	**Core IV** Principles of Management	5	RP
5	Part – III	**Allied II** Ethics & Corporate Governance	6	RS
6	Part – IV	Non Major Elective / *Basic Tamil / Advanced Tamil	2	RP
7	Part – IV	Skill Based Subject Soft Skills – II	2	SOFT SKILLS
	Total		30	

FOURTH SEMESTER

Sl.No	Course Component	Name of the Course	Instructional Hours	Faculty (in-charge)
1	Part – III	**Core IX** Financial Reporting	5	RP
2	Part – III	**Core X** International Marketing	5	RS
3	Part – III	**Core XI** Management Accounting – I	5	GG
4	Part – III	**Core XII** International Taxation & Technology	6	RP
5	Part – III	**Allied IV** Operations Research	6	MATHS
6	Part – IV	Skill Based Subject Soft Skills – IV	2	SOFT SKILL
7	Part – IV	Enviromental Studies	1	RP
	Total		30	

***Dr.R.Premalatha-RP, Ms.R.Sindhu-RS, GG- G. Gnanasekharan**

Reg. No. : | | | | | | | | |

APRIL 2021 **U/4714/1962417**

INTERNATIONAL TAXATION AND TECHNOLOGY

Time : Three hours Maximum : 100 marks

SECTION A — ($10 \times 2 = 20$ marks)

Answer any TEN questions.

1. Write short note on tax system in India.

2. Define (GAAP) General Accepted Accounting Principle.

3. What are types of Tax election?

4. What is Gross income?

5. What are the rules regarding exemption of capital gains?

6. What are the three types of property?

7. What is Gift Taxation?

8. How are partners paid in a Partnership?

9. What is liabilities treatment?

10. What does AMT stand for?

11. What do you mean by corporation?

12. State any two differences between corporation and company.

SECTION B — ($5 \times 7 = 35$ marks)

Answer any FIVE questions.

13. Discuss in detail about the authority hierarchy.

14. Brief the types of Capital gain assets.

15. Discuss Schedule DI in Income Tax.

16. Distinguish between sale and exchange.

17. Explain the types of real estate transactions?

18. How do you account for a Partnership?

19. Explain income determination model.

SECTION C — ($3 \times 15 = 45$ marks)

Answer any THREE questions.

20. Who are the Tax payers? Explain the different types of Tax payers.

21. Define passive activity. Discuss the kinds of passive activity Loss Rules.

22. What is an Asset? Explain the classification of Assets.

23. Discuss the types of Transaction that are considered as a partner/partnership transaction.

24. Explain capital contribution and distribution.

DEPARTMENT OF BCOM FINANCE & TAXATION

INTERNATIONAL TAXATION & TECHNOLOGY

STUDY MATERIAL

UNIT NO.IV- PARTNERSHIP

Partnership Introduction:

The rules governing partnership taxation, for purposes of the U.S. Federal income tax, are codified according to Subchapter K of Chapter 1 of the U.S. Internal Revenue Code (Title 26 of the United States Code). Partnerships are "flow-through" entities. Flow-through taxation means that the entity does not pay taxes on its income. Instead, the owners of the entity pay tax on their "distributive share" of the entity's taxable income, even if no funds are distributed by the partnership to the owners. Federal tax law permits the owners of the entity to agree how the income of the entity will be allocated among them, but requires that this allocation reflect the economic reality of their business arrangement.

Aggregate and Entity Concept : The Federal income taxation of partners and partnerships is set forth under Subchapter K covering Sections 701–777 of the Code. Subchapter K represents a blending of the Aggregate and Entity concepts.

Aggregate Concept : An aggregate concept looks at a partnership as a collection of partners and treats each partner as if he owned an undivided interest in the partnership assets and its operations. For tax purposes, under this concept, a partnership is not a person, it cannot be sued or sue. It is merely a conduit passing income through to the partners for reporting on their individual tax returns. "The aggregate approach reflects the underlying notion that the partnership form generally should affect the tax treatment of the partners as little as possible. Thus it is useful to compare the treatment of a similar non-partnership transaction under general income tax principles.

Entity Concept An entity concept on the other hand looks at a partnership as a separate entity for tax purposes with partners owning equity interest in the partnership as a whole. This treatment is similar to corporations entity approach. Thus a partnership for tax purposes is a person, it can sue and be sued and can conclude legal contracts in its own name. The entity concept governs the characterization "income, gain, losses and deductions from the partnership operations, are initially determined at entity level. These items are then passed through to the partners through their distributive shares

PARTNERSHIP DEFINATION:

26 U.S. Code § 761. Terms defined

(a) Partnership For purposes of this subtitle, the term “partnership” includes a syndicate, group, pool, joint venture, or other unincorporated organization through or by means of which any business, financial operation, or venture is carried on, and which is not, within the meaning of this title, a corporation or a trust or estate. Under regulations the Secretary may, at the election of all the members of an unincorporated organization, exclude such organization from the application of all or part of this subchapter, if it is availed of—
(1) for investment purposes only and not for the active conduct of a business,
(2) for the joint production, extraction, or use of property, but not for the purpose of selling services or property produced or extracted, or
(3) by dealers in securities for a short period for the purpose of underwriting, selling, or distributing a particular issue of securities,
if the income of the members of the organization may be adequately determined without the computation of partnership taxable income.

(b) Partner
For purposes of this subtitle, the term “partner” means a member of a partnership. In the case of a capital interest in a partnership in which capital is a material income-producing factor, whether a person is a partner with respect to such interest shall be determined without regard to whether such interest was derived by gift from any other person.

(c) Partnership agreement

For purposes of this subchapter, a partnership agreement includes any modifications of the partnership agreement made prior to, or at, the time prescribed by law for the filing of the partnership return for the taxable year (not including extensions) which are agreed to by all the partners, or which are adopted in such other manner as may be provided by the partnership agreement.

(d) Liquidation of a partner’s interest

For purposes of this subchapter, the term “liquidation of a partner’s interest” means the termination of a partner’s entire interest in a partnership by means of a distribution, or a series of distributions, to the partner by the partnership.

Types of partners:

A) General partners: A general partner is a partner who is personally liable for partnership debts.

B) Limited partners: partner is a partner in a partnership formed under a state limited partnership law, whose personal liability for partnership debts is limited to the amount of money or other property that the partner contributed or is required to contribute to the partnership.

Types of partnership:

A) General partnership – A general partnership is composed only of general partners.

B) Limited partnership- A limited partnership is formed under a state limited partnership law and composed of at least one general partner and one or more limited partners.

C) Limited liability company (LLC)- A limited partnership company (LLC) is an entity formed under state law by filing articles of organization as an LLC. Unlike partnership, none of the members of the LLC are personally liable for its debts. An LLC may be classified for federal income tax purposes as a partnership, a corporation, or an entity disregarded as an entity separate from its owner by applying the rules in Regulations section 301.7701-3. (Form 8832 Entity Classification Election)

   Note: A domestic LLC with at least two members that does not file Form 8832 is classified as a partnership for federal income tax purposes.

D) Limited liability partnership (LLP)- A limited liability partnership is formed under a state limited liability partnership law. Generally, a partner in an LLP isn't personally liable for the debts of the LLP or any other partner, nor is a partner liable for the acts or omissions of any other partner.

E) Publically traded partnership (PTP): A publicly traded partnership is any partnership an interest in which is regularly traded on an established securities market regardless of the number of its partners.

Terminating a Partnership

A partnership terminates when all its operations are discontinued and no part of any business, financial operation, or venture is continued by any of its partners in a partnership.

See section 1.708-1(b)(1) of the regulations for more information on the termination of a partnership.

Date of termination.

The partnership's tax year ends on the date of termination. The date of termination is the date the partnership completes the winding up of its affairs.

Short period return.

If a partnership is terminated before the end of what would otherwise be its tax year, Form 1065 must be filed for the short period, which is the period from the beginning of the tax year through the date of termination. The return is due the 15th day of the 3rd month following the date of termination. See *Partnership Return (Form 1065)* , later, for information about filing Form 1065.

Partnership Return (Form 1065)

Every partnership that engages in a trade or business or has gross income must file an information return on Form 1065 showing its income, deductions, and other required information. The partnership return must show the names and addresses of each partner and each partner's distributive share of taxable income. The return must be signed by a partner. If an LLC is treated as a partnership, it must file Form 1065 and one of its members must sign the return.

A partnership is not considered to engage in a trade or business, and is not required to file a Form 1065, for any tax year in which it neither receives income nor pays or incurs any expenses treated as deductions or credits for federal income tax purposes.

Schedule K-1 : Schedule K-1 shows each partner's separate share.

Attach a copy of each Schedule K-1 to the Form 1065 filed with the IRS. Keep a copy with a copy of the partnership return as a part of the partnership's records and furnish a copy to each partner

(a) General rule
No gain or loss shall be recognized to a partnership or to any of its partners in the case of a contribution of property to the partnership in exchange for an interest in the partnership.

(b) Special rule
Subsection (a) shall not apply to gain realized on a transfer of property to a partnership which would be treated as an investment company (within the meaning of section 351) if the partnership were incorporated.

(c) Regulations relating to certain transfers to partnerships
The Secretary may provide by regulations that subsection (a) shall not apply to gain realized on the transfer of property to a partnership if such gain, when recognized, will be includible in the gross income of a person other than a United States person.

Tax Forms related to filings for Partnership:

Form 1065:

Purpose:

Form 1065 is an information return used to report the income, gains, losses, deductions, credits, and other information from the operation of a partnership. A partnership doesn't pay tax on its income but passes through any profits or losses to its partners. Partners must include partnership items on their tax or information returns.

Domestic Partnerships:

A domestic partnership is a partnership that is created or organized in the United States or under the law of the United States.

Every domestic partnership must file Form 1065, unless it neither receives income nor incurs any expenditures treated as deductions or credits for federal income tax purposes. Entities formed as LLCs that are classified as partnerships for federal income tax purposes have the same filing requirements as domestic partnerships.

Foreign Partnerships:

A foreign partnership is a partnership that is not created or organized in the United States or under the law of the United States or of any state.

Generally, a foreign partnership that has gross income effectively connected with the conduct of a trade or business within the United States or has gross income derived from sources in the United States must file Form 1065, even if its principal place of business is outside the United States or all its members are foreign persons. A foreign

partnership required to file a return generally must report all of its foreign and U.S. source Income.

When to file form 1065:

Generally, a domestic partnership must file Form 1065 by the 15th day of the 3rd month following the date its tax year ended as shown at the top of Form 1065. For calendar year partnerships, the due date is March 15, 2021.

Fiscal year taxpayer ending June 2020 must file their partnership tax return form 1065 by 15th September 2021.

Who Must Sign

Form 1065 isn't considered to be a return unless it is signed by a partner or LLC member. When a return is made for a partnership by a receiver, trustee, or assignee, the fiduciary must sign the return, instead of the partner or LLC member. Returns and forms signed by a receiver or trustee in bankruptcy on behalf of a partnership must be accompanied by a copy of the order or instructions of the court authorizing signing of the return or form.

Extension of Time To File

File Form 7004 to request an extension of time to file. File Form 7004 by the regular due date of the partnership return. Form 7004 can be electronically filed. See the Instructions for Form 7004.

Extension Application Due Date: The due date for partnership and multiple-member LLC tax returns on Form 1065 is the 15th day of the third month after the end of your partnership's fiscal (financial) year. For a December 31 year-end, the due date is March 15. (The old due date, prior to 2016, was April 15.) This is also the date on which the extension must be filed.

Extended Return Due Date: Partnerships and multiple-member LLC's have six months from the extension due date to file the tax return. So, a partnership would have until September 15 to file the partnership tax return.

Electronic Filing

Certain partnerships with more than 100 partners are required to file Form 1065, Schedules K-1, and related forms and schedules electronically. Other partnerships generally have the option to file electronically.

Schedule K-1:

Generally, the partnership is required to prepare and give a Schedule K-1 to each person who was a partner in the partnership at any time during the year. Schedule K-1 must be provided to each partner on or before the day on which the partnership return is required to be filed. A Schedule K-1 is distributed to each partner, showing the partner's share of profits (or losses) for the year. The partner includes the K-1 income or loss on his or her personal tax return.

Along with the partnership information return on Form 1065, the tax preparer also prepares a Schedule K-1 for each partner, which breaks down the partnership income and share of that income for that partner, along with other information

On each Schedule K-1, enter the partner's name, address, identifying number, and distributive share items.

Information required for filing Partnership federal income tax return:

To file your partnership's federal income tax return you will several documents:

- A copy of your end-of-year Profit and Loss (Income) Statement for the partnership. In addition, you will need detail and totals on all the sources of income and types of expenses paid by the partnership during the year.
- A copy of your end-of-year Balance Sheet, details on all the property you purchased during the year, for depreciation calculation purposes.
- Listing of all of the shares of each partner and how the profits or losses are to be shared by the partners.

How to File Form 1065: U.S. Return of Partnership Income

This form requires significant information about the partnership's annual financial status. This includes income information such as gross receipts or sales. Deductions and operating expenses such as rent, employee wages, bad debts, interest on business loans, and other costs are also included. The form requires information about the partners and their stake in the company by percentage of ownership.

Other relevant forms filed along with Form 1065:

- Schedule K-1 : partnership is required to prepare and give a Schedule K-1 to each person who was a partner in the partnership at any time during the year. Schedule K-1 must be provided to each partner on or before the day on which the partnership return is required to be filed.
- Form 4562: Depreciation and Amortization : Form 562 is used to claim depreciation and amortization.
- Form 4797: Sale of Business Property : it is used to report gain or loss on sale of Real and personal business property.
- Schedule D : Use Schedule D to report the following:
- The total capital gains and losses from transaction reported on Form 8949.
- Form 8949 : Use Form 8949 to report sales and exchanges of capital assets. Form 8949 allows you and the IRS to reconcile amounts that were reported to you and the IRS on Forms 1099-B or 1099-S (or substitute statements) with the amounts you report on your return

Schedule M-3

Schedule M-3, Part I, asks certain questions about the partnership's financial statements and reconciles financial statement net income (loss) for the consolidated financial statement group to income (loss) per the income statement for the partnership.

Schedule M-3, Parts II and III, reconcile financial statement net income (loss) for the partnership (per Schedule M-3, Part I, line 11) to line 1 of the Analysis of Net Income (Loss) found on Form 1065.

Who Must File

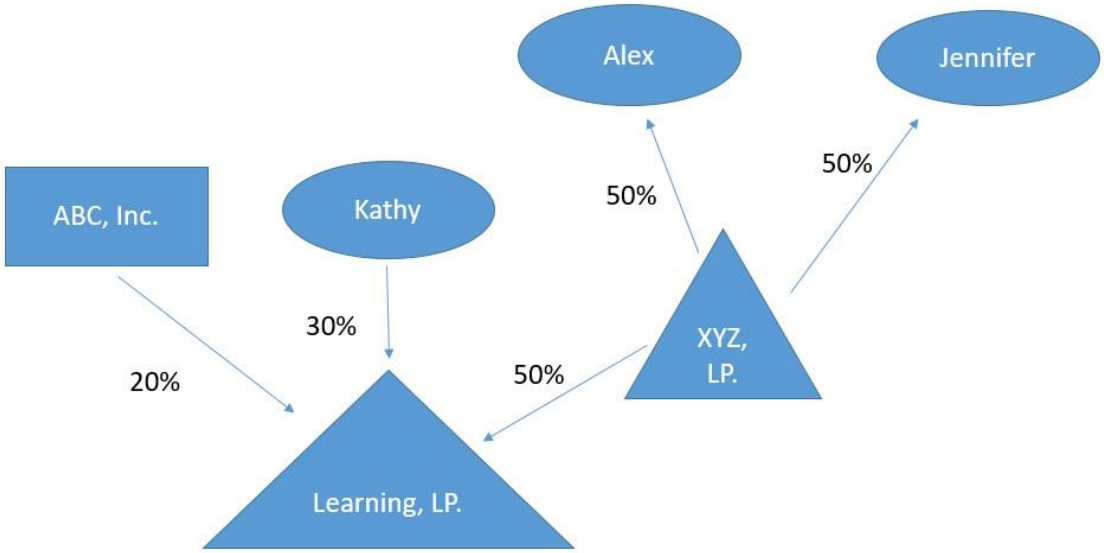
Any entity that files Form 1065 must file Schedule M-3 (Form 1065) if any of the following is true.

The amount of total assets at the end of the tax year reported on Schedule L, line 14, column (d), is equal to $10 million or more.

The amount of adjusted total assets for the tax year is equal to $10 million or more. See Total Assets and Adjusted Total Assets below.

The amount of total receipts for the tax year is equal to $35 million or more. Total receipts is defined in the instructions for Codes for Principal Business Activity and Principal Product or Service in the Instructions for Form 1065.
An entity that is a reportable entity partner with respect to the partnership (as defined under these instructions) owns or is deemed to own, directly or indirectly, an interest of

Understand Organization structure



- Learning, LP is a limited partnership owned by 3 partnership.
- Kathy – Individual – General Partner – Owns 30%
- ABC, Inc.– Corporate – Limited Partner – Owns 20%
- XYX, LP. – Partnership – Limited Partner– Owns 50%
- Learning, LP has to file Form 1065 with 3 K-1's.
- XYZ, LP is a limited partnership owned by Alex and Jennifer with each owning 50%.
    - XYZ, LP receives K-1 from Learning, LP.
    - XYZ, LP will file Form 1065 with 2 K-1's
- Alex and Jennifer will receive K-1 from XYZ, LP and will include their share of income from XYZ, LP in their own Individual tax return.

RU

Dwaraka Doss Goverdhan Doss Vaishnav College
(Autonomous)

College with Potential for Excellence, Linguistic Minority Institution
Affiliated to University of Madras
Arumbakkam, Chennai-106

M.SC., BIOCHEMISTRY

FIRST SEMESTER (SYLLABUS)

Course Title: STEM CELL BIOLOGY (Elective Paper I)

	Credits : 03
L:T:P:S : 4:0:0:0	**CIA Marks : 40**
Exam Hours : 03	**ESE Marks : 60**

At the end of the course the students will be able to

CO NUMBER	CO Statement
CO1	Define the significance of stem cells
CO2	Illustrate the differentiation of stem cells
CO3	Understand techniques used for stem cell characterization
CO4	Analyze the therapeutic applications of stem cell
CO5	Describe the importance of Stem cell banking

Mapping of Course Outcomes to Program Specific Outcomes:

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	2	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3

Correlation : 3 strong 2 medium 1 low

o.	Content of Module	Hrs	Cos
01	Stem cells -Introduction, Definition and basics of stem cells. Classification of stem cells .Human embryonic stem cells, Adult stem cells. Sources of stem cells - Fetus and various adult tissues – Advantages of stem cells. Blastocyst culture- Various stages of embryonic development. In vitro fertilization. Properties of stem cells - self renewal, clonality and plasticity. Pluripotent nature of stem cells - Extrinsic and Intrinsic factors. Characterization of human embryonic stem cells – Expression of cell surface marker, Karyotyping	15	CO1
02	Hematopoietic stem cells (HSC) - Basics, Development and Regulation of HSC. Clinical Application of HSC – Gene Therapy – using haematopoietic stem cells HSC for Leukemia. Mesenchymal stem cells (MSC) - Differentiation and Identification. Characteristics of mesenchymal stem cells. Clinical applications of stem cells.	15	CO2
03	Neuronal stem cell, mesen chymal stem cell, cardiac stem cells , planaria stem cells, prostate and breast stem cells, transforming growth factor (TGFβ), G PROTEIN – COUPLED RECEPTORS (GPCRs).hematopoietic stem cells, stem cells and diabetes, techniques used for stem cell isolation, enumeration and Ex-VIVO expansion, techniques used for stem cell characterization.	20	CO3
04	Therapeutic applications of stem cell: fundamentals of regenerative medicine, autologous and allogenic stem cell transplatation, HLA typing, Animal models of regeneration.	15	CO4
05	Skeletal Muscle Stem Cells – Development and functions. Liver stem cells – Organization and functions. Tumor stem cells – Basics differences and Similarities of cancer stem cells and stem cells. Cancer stem cell signaling – NOTCH pathway. Canonical wnt signaling pathways in hematopoietic stem cells. Stem cell therapies in animal models. Use and benefits of stem cell for human beings. Stem cell banking – cryopreservation techniques, national guideline by ICMR, recent advances in stem cell biology.	10	CO5

RECOMMENDED BOOKS

1. Robert lanza, J. G. (2009). *Essential of stem cell biology.* Academic press - ISBN: 9780080884974
2. Peter J, Q. (1998). *Stem cell biology and gene therapy* (1st ed.). Willyless.
3. A. D. Ho. R. Hoffiman. (2006). *Stem cell transplantation biology processes therapy.* wiley-VCH. ISBN 10: 3527310185 / ISBN 13: 9783527310180

EFERENCE BOOKS

1. Potten, C. (2006). *Stem cells.* Elsevier.
2. Neil Singh, L. V.-J. (2011). *A Practical guide to human stem cell biology.* Wiley - ISBN 10: 0470595450 / ISBN 13: 9780470595459
3. Knoepfler, P. (2013). *Stem Cells: An Insiders Guide* . World Scientific Publishing Company.

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE (AUTONOMOUS)

College with Potential for Excellence
Linguistic Minority Institution. Affiliated to University of Madras

Department: PG & Research Department of Biochemistry		Academic Semester: I	
Semester: I	Section:	Course Code:2124105C	Course: Stem cell biology
Course Instructor: Dr.R.Uma		Contact Hours /week: 4	No. of credits: 03
CIA: 040		ESE : 100	Exam Hours: 03

Prerequisites if any:			
Code No	Course Name	Description	Semester
2024105C	Stem cell Biology	Branch of life science that studies the types, structure and clinical application of stem cell	I
Content delivery:	Chalk and Chat, Power Point, question and Coursework		

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Define the significance of stem cell
CO2	Illustrate the differentiation of stem cells
CO3	Understand techniques used for stem cell characterizatio
CO4	Analyze the therapeutic applications of stem cell
CO5	Describe the importance of Stem cell banking

Mapping of Course Outcomes to Program specific Outcomes

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	2	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	2
CO5	3	3	3	3	3

Correlation levels: 1- Weak 2-Medium 3-High

27.	Define hematopoietic stem cells (K1CO2)
28.	Where mesenchymal stem cells are harvested (K1 CO2)
29.	Why neuronal stem cells are important?(K1 CO3)
30.	Outline the characteristic features of cardiac stem cells(K2 CO3)
31.	What are the characteristic features of breast stem cells(K1 CO3)
32.	Illustrate the importance of cardiac stem cells(K2 CO3)
33.	Why neuronal stem cells are important?(K1 CO3)
34.	Outline the characteristic features of cardiac stem cells(K2 CO3)
35.	Classify Gα subunit and its role (K2 CO3)
36.	Why cardiac stem cells are important? (K1 CO3)
37.	Classify Gα subunit and its role (K2 CO3)
38.	Infer any two prostate disorders (K2 CO3)
39.	Demonstrate the regulatory pathway of stem cell renewal (K2 CO3)
40.	Apply the role of Smad in TGFβ signaling (K3 CO3)
41.	Select the proteins involved in enhanced wnt signaling (K3 CO3)
42.	Select the cells derived from cardiac stem cells(K3 CO3)
43.	Relate the importance of HLA typing in stem cell transplantation (K2 CO4)
44.	How long does it take to recover from autologous stem cell transplantation(K1 CO4)
45.	Name the animal model used in regeneration(K1 CO4)
46.	Outline the uses of regenerative medicine(K2 CO4)
47.	Classify the stem cell transplants(K2 CO4)
48.	Illustrate the importance of HLA typing in stem cell transplantation (K2 CO4)
49.	Select the risks of autologous stem cell transplants(K3 CO4)
50.	Apply the benefits of allogeneic stem cell transplant(K3 CO4)
51.	Outline the uses of regenerative medicine(K2 CO4)
52.	Infer the role of ESC's in restoration of cartilage(K2 CO4)
53.	Apply the benefits of allogeneic stem cell transplant(K3 CO4)
54.	Select any two stem cells used for the treatment of disease(K3 CO4)
55.	Identify the difference between allogeneic and autologous stem cell transplant(K3 CO4)
56.	What are the functions of liver stem cells(K1 CO5)
57.	List any two applications of skeletal muscle stem cells(K1 CO5)
58.	Illustrate the benefits of stem cells for human beings(K2 CO5)
59.	Infer any two recent advances in stem cell biology(K2 CO5)
60.	Compare stem cells and cancer stem cells(K2 CO5)
61.	List any two applications of Liver stem cells(K1 CO5)
62.	Infer the role of wnt pathway in stem cell(K2 CO5)
63.	Demonstrate the significance of notch pathway(K2 CO5)
64.	Define cryoprotectant(K1 CO5)
65.	Illustrate the importance of stem cell banking(K2 CO5)

Section B - K3, K4, K5 (7 marks)

1.	Identify the characteristic features of human embryonic stem cells(K3 CO1)
2.	Organize the advantages of blastocyst culture(K3 CO1)
3.	Organize the classification of stem cells based on potency(K3 CO1)
4.	Identify the properties of stem cells (K3 CO1)
5.	Classify the stem cells based on their differentiation (K4 CO1)
6.	Explain the procedure of Karyotyping(K5 CO1)
7.	Explain the properties of stem cells (K5 CO1)
8.	Discuss the characterization of embryonic stem cells(K5 CO1)
9.	Identify the characteristic features of Mesenchymal stem cells(K3 CO2)
10.	How hematopoietic stem cells are utilized in the treatment of Leukemia(K3 CO2)
11.	Organize the development of hematopoietic stem cells(K3 CO2)
12.	Compare the characteristic features of hematopoietic and mesenchymal stem cells (K5 CO2)
13.	Identify the cells that are differentiated from mesenchymal stem cells(K3 CO2)
14.	Discover how stem cells are utilized in the treatment of Diabetes (K4 CO3)
15.	Analyze the role of TGFβ signalling in stem cell differentiation(K4 CO3)
16.	Discover the functions of TGF β(K4 CO3)
17.	Examine the GPCR signalling pathway in hematopoietic stem cell(K4 CO3)
18.	Compare and contrast prostate and breast stem cells(K2 CO3)
19.	Discuss the importance of neuronal stem cells(K6 CO3)
20.	Recommend the steps involved in allogenic stem cell transplantation(K5 CO4)
21.	Evaluate the fundamentals of regenerative medicine(K5 CO4)
22.	Explain the therapeutic applications of stem cells(K5 CO4)
23.	Recommend any two methods of HLA typing.(K5 CO4)
24.	Appraise the national guidelines framed by ICMR for stem cell banking(K5 CO5)
25.	Explain briefly the notch signalling pathway in cancer stem cells(K5 CO5)
26.	Appraise the importance of stem cell therapies in animal models(K5 CO5)
27.	Explain the similarities and difference between stem cells and cancer stem cells (K5 CO5)
28.	Simplify the organization of liver stem cells(K4 CO4)
29.	Interpret the recent advances in stem cell biology(K5 CO5)
30.	Examine the uses and benefits of stem cell for human(K4 CO5)

Section C- K6,K4,K5 (15marks)

1.	Elaborate on the classification of stem cells based on origin and differentiation (K6 CO1)
2.	Discuss the procedure of invitro fertilization and its importance (K6 CO1)
3.	Formulate the steps involved in embryogenesis(K6 CO1)
4.	Examine the characterization of embryonic stem cells,(K4 CO1)
5.	Elaborate on the clinical applications of HSC(K6 CO2)
6.	Analyze the development of hematopoietic stem cells and its regulation(K4 CO2)
7.	Discover in detail the clinical application of stem cells (K4 CO2)
8.	Discover about the techniques used for stem cell characterization(K4 CO3)
9.	Examine the stem cell isolation, enumeration and ex vivo expansion of stem cells(K4 CO3)
10.	Discuss the wnt signaling pathway in regulating cell fate determination (K6 CO3)
11.	Discover the role of TGFβ signaling in stem cell differentiation(K4 CO3)
12.	Analyse the role of planaria stem cells in regeneration(K4 CO3)
13.	Discover the role of cardiac stem cells in stem cell research(K4 CO3)
14.	Evaluate the advantages and disadvantages in using animal model for regeneration (K5 CO4)
15.	Appraise the principle and procedure of autologous stem cell transplantation (K5 CO4)
16.	Formulate the steps involved in allogenic stem cell transplantation(K6 CO4)
17.	Explain the principle, procedure of Cryopreservation and its role in stem cell banking(K5 CO5)
18.	Evaluate the role of wnt signalling pathway of hematopoietic stem cells(K5 CO5)
19.	Compare the similarities and difference between stem cells and cancer stem cells(K5 CO5)
20.	Discuss in detail about cancer stem cell -Notch signaling pathway(K6 CO5)

Course Title: Topology

Course	M.Sc Maths
Exam Hours	03

Credits	04
CIA Marks	40
ESE Marks	60

Course objectives

- To define the concept of convergence, completeness and continuous mappings in metric spaces.
- To distinguish and explain the concept of topological spaces, compact spaces, T1 spaces, Hausdorff spaces and connected spaces.
- To demonstrate the applications of Tychonoff's theorem, Ascoli's theorem, Urysohn's lemma, Urysohn's imbedding theorem, Tietze extension theorem, Weierstrass theorem in Topological spaces.

Course outcomes: At the end of the course, students will be able to

CO1	Distinguish between convergence and completeness and demonstrate these concepts in Baire's theorem .
CO2	Develop the concepts of topological spaces and illustrate with examples.
CO3	Distinguish between the open and sub cover and demonstrate the importance of Heine-Borel theorem, Tychonoff theorem, Lebesgue's covering lemma and Ascoli's theorem,.
CO4	Classify and categorize the T1 space, Hausforff space, completely regular space and normal space and can demonstrate these concepts in Tietze extension theorem, Urysohn imbedding theorem.
CO5	Compare the connected spaces, components of a space and a totally disconnected spaces.

CONTENTS OF MODULE	
CO1	**UNIT-I :** Metric Spaces: Convergence, completeness and Baire's Theorem; Continuous mappings;Spaces of continuous functions;Euclidean and Unitary spaces. Chapter Two (Sec 12 - 15)
CO2	**UNIT-II :** Topological Spaces: Definition and some Examples; Elementary concepts. Open bases and subbases; Weak topologies; the function algebras C(X,R) and C(X,C): Chapter Three (Sec 16 - 20)
CO3	**UNIT-III :** Compact spaces, Tychonoff's theorem and locally compact spaces; Compactness for metric spaces; Ascoli's theorem. Chapter Four (Sec 21,23,24,25)
CO4	**UNIT-IV :**Separation: T1 – spaces and Hausdorff spaces; Completely regular spaces and normal spaces; Urysohn's lemma and the Tietze extension theorem; The Urysohn imbedding theorem. Chapter Five (Sec 26 – 29)

CO5	UNIT-V: Connectedness: Connected spaces;The components of a space; Totally disconnected spaces; Locally connected spaces; The Weierstrass approximation Theorem. Chapter Six (Sec 31 - 34) Chapter Seven (Sec 35 only)

Recommended Text :

George F.Simmons, Introduction to Topology and Modern Analysis, Tata-McGraw Hill, New Delhi, 2004.

Reference Books:

1. James R. Munkres, Topology (2nd Edition) Pearson Education Pvt. Ltd., Delhi-2002 (ThirdIndian Reprint)
2. J. Dugundji, Topology, Prentice Hall of India, New Delhi, 1975.
3. J.L. Kelly, General Topology, Van Nostrand, Reinhold Co.,New York
4. S.Willard, General Topology, Addison - Wesley, Mass., 1970

Mapping of Course Outcomes to Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PS03
CO1	3	3	2			2	3	3	2	3
CO2	3	2	2	1		1	3	2	2	3
CO3	3	2	2		1	2	2	2	3	2
CO4	2	2	3			1	2	3	2	3
CO5	3	3	3	1	1	2	3	2	2	2

3 – High **2 – Medium** **1 - Low**

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DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE (AUTONOMOUS)

College with Potential for Excellence

Linguistic Minority Institution. Affiliated to University of Madras

Department: PG & Research Department of Mathematics – Shift - I		**Academic Semester:** III	
Semester: III	**Section:** A	**Course Code:** 202314	**Course:** TOPOLOGY
Course Instructor: Dr. S.P. Vijayalakshmi		**Contact Hours /week:** 6	**No. of credits:** 04
CIA: 40		**ESE :** 100	**Exam Hours:** 03

Prerequisites if any:

Code No	Course Name	Description	Semester
	Topology	To define the concept of convergence, completeness and continuous mappings in metric spaces and topological spaces To distinguish and explain the concept of compact spaces, T1 spaces, Hausdorff spaces and connected spaces.	III

Content delivery:	Chalk and Chat, Power Point appearance, question and Coursework

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Distinguish between convergence and completeness and demonstrate these concepts in Baire's theorem .
CO2	To develop the concepts of topological spaces with examples
CO3	Distinguish between the open and sub cover and demonstrate the importance of Heine-Borel theorem, Tychonoff theorem, Lebesgue's covering lemma and Ascoli's theorem,.
CO4	Classify and categorize the T1 space, Hausforff space, completely regular space and normal space and can demonstrate these concepts in Tietze extension theorem, Urysohn imbedding theorem
CO5	Compare the connected spaces, components of a space and a totally disconnected spaces.

Mapping of CO v/s PO & PSO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PS03
CO1	3	3	2			2	3	3	2	3
CO2	3	2	2	1		1	3	2	2	3
CO3	3	2	2		1	2	2	2	3	2
CO4	2	2	3			1	2	3	2	3
CO5	3	3	3	1	1	2	3	2	2	2

Correlation levels: 1- Weak 2-Medium 3-High

COURSE DELIVERY PLAN

Unit	Topics and Contents		RBT LEVEL	PLANNED DATE	ACTUAL DATE	FACULTY SIGN	HOD SIGN	
Unit I	Metric Spaces: Convergence, and Spaces of continuous functions;	3	L2	19.8.21	19.8.21			
	Completeness	3	L2	23.8.21	23.8.21			
	Baire's Theorem;	2	L4	29.8.21	29.8.21			
	Continuous mappings	2	L3	2.9.21	2.9.21			
	Euclidean and Unitary spaces	2	L4	8.9.21	8.9.21			
Unit 2	Topological Spaces: Definition and some Examples;	3	L2	12.9.21	14.9.21			
	Elementary concepts.	3	L3	15.9.21	19.9.21			
	Open bases and subbases;	3	L2	20.9.21	27.9.21			
	Weak topologies; the function algebras C(X,R) and C(X,C):	3	L2	27.921	17.10.21			
Unit 3	Compact spaces,	2	L2	8.10.21	19.10.21			
	Tychonoff's theorem	3	L3	15.10.21	26.10.21			
	locally compact	3	L2	20.10.21	29.10.21			

	spaces							
	Compactness for metric spaces	2	L2	27.10.21	2.11.21			
	Ascoli's theorem.	2	L3	29.10.21	7.11.21			
Unit 4	Separation: T1 – spaces and Hausdorff spaces;	3	L2	14.11.21	14.11.21			
	Completely regular spaces and normal spaces;	2	L3	18.11.21	18.11.21			
	Urysohn's lemma and the Tietze extension theorem;	3	L3	21.11.21	21.11.21			
	The Urysohn imbedding theorem.	4	L3	25.11.21	25.11.21			
Unit 5	Connectedness: Connected spaces;;;	4	L2	28.11.21	28.11.21			
	The components of a space;		L2	2.12.21	2.12.21			
	Totally disconnected spaces	3	L3	7.12.21	7.12.21			
	Locally connected spaces.	3	L3	12.12.21	12.12.21			
	The Weierstrass approximation Theorem	2	L4	16.12.21	16.12.21			

*L1 - Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 - Creating

TEXT BOOKS:

Recommended Text :

George F.Simmons, *Introduction to Topology and Modern Analysis, Tata-McGraw Hill, New Delhi, 2004.*

Reference Books:

1. James R. Munkres, Topology (2nd Edition) Pearson Education Pvt. Ltd., Delhi-2002 (ThirdIndian Reprint)

J. Dugundji, Topology, Prentice Hall of India, New Delhi, 1975.
2. J.L. Kelly, General Topology, Van Nostrand, Reinhold Co.,New York
3. S.Willard, General Topology, Addison - Wesley, Mass., 1970
4.

Assessment Methodologies:

Sl. No.	Description	Type
1.	Student Assignment	Direct
2.	Internal assessment	Direct
3.	End Semester exam	Direct
4.	Student feedback	Indirect
5.	Alumni feedback	Indirect
6.	Employers feedback	Indirect

Distribution of Marks for CIA	
CIA Tests (2)	25 Marks
Generic Activity	10 Marks
Attendance	5 Marks
Total	40 Marks

Course Instructor

Dept. IQAC Coordinator

HOD

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POST GRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS

Continuous Internal Assessment -II December 2021

SUBJECT: TOPOLOGY

Class: II M.Sc Mathematics

Time : 2 hrs **Max. marks : 50**

CO	RBTL	Q.NO	QUESTIONS
Section – A (10 *1 = 10 marks) Answer ALL the questions			
CO4	K1	1	Find an example for a T_1 space which is not a Hausdorff space.
CO3	K1	2	Define finite intersection property.
CO4	K1	3	Define T_1 space
CO3	K2	4	Give an example for compact space
CO3	K1	5	Define Lebesgue number
CO4	K1	6	Define normal space
CO4	K2	7	If X= {a, b,c} and T= $\{\phi, \{a\}, \{b, c\}, X\}$ then a Check whether (X,T) is normal
CO3	K2	8	State Heine-Borel theorem
CO3	K1	9	Define sequentially compact
CO4	K2	10	Is every discrete space is Hausdorff –(Yes/No)
SECTION – B (4*5 = 20 MARKS) (Internal choice)			
CO3	K5	11. (a)	Explain Tychonoff's theorem
(OR)			
CO3	K4	11 (b)	Show that a topological space is compact if and only if every class of closed sets with the finite intersection property has non-empty intersection.
CO4	K4	12 (a)	State and prove Urysohn's Lemma.

		(OR)	
CO4	**K4**	**12(b)**	In a Hausdorff space prove that any point and disjoint compact subspace can be separated by open sets.
CO3	**K4**	**13 (a)**	Prove that a metric space is sequentially compact if and only if it has the Bolzano- Weierstrass property
		(OR)	
CO3	**K5**	**13 (b)**	Prove that any continuous image of a compact space is compact
CO4	**K4**	**14 (a)**	Prove that every Compact Hausdorff space is normal
		(OR)	
CO4		**14 (b)**	Prove that a topological space is a T1 space if and only if each point is a closed set.
		SECTION – C (10* 2 = 20 marks)	
CO3	**K5**	**15(a)**	If X is a compact space then prove that closed subspace of C(X,R) or C(X,C) is compact if and only if it is bounded and equicontinuous.
		(OR)	
CO3	**K5**	**15 (b)**	prove that in a sequentially compact metric space, every open cover has a Lebesgue number.
CO4	**K5**	**16(a)**	State and prove Tietze Extension theorem
		(OR)	
CO4	**K5**	**16(b)**	State and prove Urysohn imbedding theorem

Reg. No. : | | | | | | | | |

NOVEMBER 2021 **P/3025/09-20/21314**

TOPOLOGY

Time : Three hours Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define Complete metric space.

2. If X is a complete metric space and Y is a closed subspace of X then show that Y is complete.

3. Define homeomorphism with an example.

4. Give an example of a proper non-empty subset of a topological space such that it is both open and closed and prove your assertion.

5. Define finite intersection property.

6. Examine whether $C = \left\{\left(0, \frac{n}{n+1}\right) : n \in N\right\}$ is an open cover for (0, 1).

7. If $X = \{a, b, c\}$ then examine whether $\tau_1 = \{\phi, \{a\}, \{b\}, \{c\}, \{a, b\}, \{b, c\}, \{c, a\}, X\}$ is a Hausdorff space.

8. Find an example for a T_1 space which is not a Hausdorff space.

9. Explain the concept of separation of sets in a topological space and use it to define connectedness of a space.

10. If X is a topological space, A is a connected subspace of X and B is a subspace of X such that $A \subseteq B \subseteq \overline{A}$, then show that B is connected.

SECTION B — ($5 \times 7 = 35$ marks)

Answer ALL the questions (Internal Choice).

11. (a) State and prove the Cantor's Intersection theorem.

Or

(b) Show that $C(X, R)$ is a closed subset of the metric space B.

12. (a) If X is a topological space, then prove that any closed subset of X is the disjoint union of its set of isolated points and its set of limit points.

Or

(b) Prove that every separable metric space is second countable.

13. (a) Show that every closed and bounded subspace of the real line is compact.

Or

(b) Explain Tychonoff's theorem.

14. (a) In a Hausdorff space prove that any point and disjoint compact subspace can be separated by open sets.

Or

(b) State and prove Urysohn's Lemma.

15. (a) If X is a compact Haudorff space then prove that X is totally disconnected if and only if it has an open base whose sets are also closed.

Or

(b) Prove that any continuous image of a connected space is connected.

SECTION C — ($3 \times 15 = 45$ marks)

Answer ALL the questions.

Q. No. 16 is a compulsory question.

16. If X is a compact space then prove that closed subspace of $C(X, R)$ or $C(X, C)$ is compact if and only if it is bounded and equicontinuous.

17. (a) (i) If X is a topological space and $\{f_n\}$ is a sequence of real functions defined on X which converges uniformly to a function f defined on X and if all f'_ns are continuous then prove that f is also continuous. (8)

(ii) If X and Y are the metric spaces and f is a mapping of X into Y. Then prove that f is continuous at x_0 if and only if $x_n \to x_0$ implies $f(x_n) \to f(x_0)$. (7)

Or

(b) (i) If X is a topological space and A is a subset of X then prove that $\overline{A} = A \cup D(A)$. (7)

(ii) If X is a non-empty set and S is an arbitrary class of subsets of X then prove that the class of all unions of finite intersections of sets in S is a topology. (8)

18. (a) (i) Define completely regular spaces and normal space with an example. (5)

(ii) State and prove Tietze Extension theorem. (10)

Or

(b) (i) Prove that the product of any non-empty class of connected spaces is connected. (7)

(ii) If X is a Hausdorff space and if X has an open base whose sets are closed then prove that X is totally disconnected. (8)

Thm 4:

Lindelof's thm

Pf

Gn: X is second countable space.

$G = \cup G_i$

T.P G can be represented as a countable union of G_i's.

Let $\{G_i\}$ be a collection of open sets in X such that $G = \cup G_i$

Since X is 2nd countable space

$\Rightarrow$ X has a countable base.

Let $B = \{B_n\}$ be a countable base for X.

Let $x \in G \Rightarrow x \in \cup G_i$ ($\because G = \cup G_i$)

$\Rightarrow x \in G_i$ for some i

as $x \in G_i$, G_i is an open set

we can find a open set $B_{nx} \in B$?:

$x \in B_{nx} \subseteq G_i$

$\Rightarrow \{x\} \subseteq B_{nx} \subseteq G_i$

$\cup_{x \in G} \{x\} \subseteq \cup_{x \in G} B_{nx} \subseteq \cup G_i$

$G \subseteq \cup B_{nx} \subseteq G \Rightarrow G = \cup B_{nx}$.

as $B = \{B_n\}$ is countable

$\Rightarrow B_{nx} \in B$ $G = \cup B_{nx}$ is countable.

Thus for each basic open set in $\{B_{nx}\}$ we can choose a set G_i

which contains it. Then the class $\{a_i\}$ which arise in this way is countable and its union is G.

Theorem

Pf Given: X — Second countable space.

T.P any open base has a countable subclass which is also an open base.

Let $\{B_n\}$ be a countable open base & $\{B_i\}$ an arbitrary open base.

Since $B_n = \cup B_i$, by Lindelöf's thm, $\forall$ non-empty B_n is the union of countable class of B_i's.

In this way we obtain a countable family of countable classes of B_i's. The union of this family of classes is evidently an open base which is a countable subclass of the open base $\{B_i\}$.

Thm: C

Every separable metric space is second countable.

Proof:

Let X be a separable metric space. Let $A = \{x_n : n \in A \subset \mathbb{N}\}$ be a countable dense subset. so that $\bar{A} = X$.

To prove that the collection

$$B = \{ S_{1/m}(x_n) ; n \in \mathbb{N}, m \in \mathbb{N} \}$$ is a countable base for X.

Let G be an arbitrary non-empty open set and x a pt in G.

ie., for an $\epsilon > 0$ $S_\epsilon(x) \subset G$.

Choose $m_0 \in \mathbb{N} \ni : 1/m_0 < \epsilon/2$

$\because \bar{A} = X \Rightarrow$ every open sphere centred at x must contain a point of A.

In particular $S_{1/m_0}(x)$ must contain a point of A say x_i

so that $d(x, x_i) < 1/m_0 \Rightarrow x \in S_{1/m_0}(x_i)$

We now show that

$$S_{1/m_0}(x_i) \subset S_\epsilon(x).$$

Let $y \in S_{1/m_0}(x_i)$

Then $d(x_i, y) < 1/m_0$

But $d(x, y) \leq d(x, x_i) + d(x_i, y)$

$< 1/m_0 + 1/m_0 = 2/m_0 < \epsilon$.

$\Rightarrow$ ~~$y \in S(x_i, \epsilon)$~~ $y \in S_\epsilon(x)$

$\Rightarrow S_{1/m_0}(x_i) \subset S_\epsilon(x) \subset G$.

$\Rightarrow x \in S_{1/m_0}(x_i) \subset G$.

Thus every $x \in X$ and every open set G containing x of a member $S_{1/m_0}(x_i)$ of B containing x and contained in G. Hence B is a Countable base for X.

$\Rightarrow X$ is second Countable.

Remark:

Every second countable space is Separable.

Pf Let X be a second countable space.

TO show that X is separable.

$\because X$ is second countable. $\exists$ a Countable base B for T. We choose a point b from each member B of B

Let D be the set thus obtained.

The set D is evidently countable.

We now show that D is dense in X.

Let x be any arbitrary point of X and let G be any open nbd of x.

Since B is a basis, $\exists$ atleast one $B \in \mathcal{B}$ s.t.

$$x \in B \subset G.$$

By definition of D, $b \in D$ is s.t.

$b \in B \subset G$. Thus G contains a point of D.

Hence x is an adherent point of D.

Since x is arbitrary we have $\overline{D} = X$.

It follows that D is a countable dense subset of X

$\Rightarrow$ X is separable.

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List of Courses relevant to Local, Regional, National and Global needs

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) of the Programme offered by the Institution.

National Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
1	1	B.A., Economics	1517	International Economics
2	1	B.A., Economics	1623	Environmental Economics
3	1	B.A., Economics	1103	Marketing& HRM
4	1	B.A., Economics	1516	Fiscal economics
5	3	BBA	03103	Managerial Economics
6	3	BBA	03519	Legal Aspects of Business
7	3	BBA	03518	Business Taxation
8	5	B.Com	5101	Financial Accounting I
9	5	B.Com	5102	Business Economics
10	5	B.Com	5205	Financial Accounting II
11	5	B.Com	5206	Business Law
12	5	B.Com	5309	Corporate Accounting I
13	5	B.Com	5310	Business Communication
14	5	B.Com	5413	Corporate Accounting II
15	5	B.Com	5414	Company Law
16	5	B.Com	5415	Practical Auditing
17	5	B.Com	5517	Cost Accounting
18	5	B.Com	5519	Principles of Financial Management
19	5	B.Com	5518	Industrial Law
20	5	B.Com	5521	Income Tax Law & Practice I
21	5	B.Com	5622	Management Accounting
22	5	B.Com	5623	Human Resources Management
23	5	B.Com	5625	Income Tax Law & Practice II
24	5	B.Com	5626	Indirect tax
25	9	B.Sc., Physics	09621	Nuclear and Particle Physics
26	9	B.Sc., Physics	09622	Digital Electronics
27	9	B.Sc., Physics	09518	Basic Electronics
28	9	B.Sc., Physics	09519	Applied Electronics
29	9	B.Sc., Physics	09623	Microprocessor Fundamentals
30	10	B.Sc., Chemistry	10514	Organic Chemistry I
31	10	B.Sc., Chemistry	10517	Analytical Chemistry
32	10	B.Sc., Chemistry	10626	Analytical Chemistry Practical
33	10	B.Sc., Chemistry	10515	Physical Chemistry I
34	10	B.Sc., Chemistry	10203	General Chemistry III
35	11	B.Sc., Biochemistry	11624(A)	Entrepreneurship in Science & technology

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National Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
36	13	B.Sc., Plant Biology and Plant Biotechnology	13624	Herbal Science
37	13		13621	Ethnobotany
38	13	B.Sc., Plant Biology and Plant Biotechnology	13412	Environmental studies
39	20	M.Com	20101	Advanced Corporate Accounting I
40	20	M.Com	20312	Managerial Economics
41	20	M.Com	20102	Financial Management
42	20	M.Com	20202	Advanced Corporate Accounting II
43	20	M.Com	20309	Accounting for Manager I
44	20	M.Com	20212	Research Methodology
45	20	M.Com	20311	Tax Management - Direct Tax
46	20	M.Com	20416	Accounting for managers II
47	20	M.Com	20103	Consumer behaviour
48	20	M.Com	20417	Advertisement and Salesmanship
49	24	M.Sc., Biochemistry	24314	Biostatistics
50	24	M.Sc., Biochemistry	24209(B)	Ecology & Population Education
51	25	M.Sc., Biotechnology	25209	Extra Disciplinary – 1: Pharmaceutical Biotechnology
52	25	M.Sc., Biotechnology	25316	Core Paper – 9: Bioprocess Technology
53	25	M.Sc., Biotechnology	25317	Core Paper – 10: Bioinformatics
54	25	M.Sc., Biotechnology	25318	Core Paper – 11: Enzymes & enzyme Technology
55	25	M.Sc., Biotechnology	25210(B)	Elective Paper – 2B: Marine Biotechnology
56	25	M.Sc., Biotechnology	25208	Core Paper –7: Environmental Biotechnology
57	25	M.Sc., Biotechnology	25209	Extra Disciplinary – 1: Pharmaceutical Biotechnology
58	25	M.Sc., Biotechnology	25421	Open Elective Paper: Herbal Technology
59	25	M.Sc., Biotechnology	25316	Core Paper – 9: Bioprocess Technology
60	25	M.Sc., Biotechnology	25210(B)	Elective Paper – 2B: Marine Biotechnology

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National Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
61	25	M.Sc., Biotechnology	25209	Extra Disciplinary – 1: Pharmaceutical Biotechnology
62	25	M.Sc., Biotechnology	25208	Core Paper –7: Environmental Biotechnology
63	25	M.Sc., Biotechnology	25317	Core Paper – 10: Bioinformatics
64	26	M.Sc., Microbiology	26422	Entrepreneurship in Microbiology
65	26	M.Sc., Microbiology	26211(B)	Aquaculture
66	26	M.Sc., Microbiology	26423	Biofertilizer Technology and Organic Farming
67	26	M.Sc., Microbiology	26319(B)	Biodegradation Technology
68	30	MBA	30103	Economics for Managers
69	30	MBA	30324	Purchasing Management
70	33	MSW	33207	Working with Communities
71	35	B.Com Honours	35326	Green Business
72	36	B.Sc., Maths	36525	Operational research
73	38	B.A., Tamil	38103	Allied – 1 - History and Culture of Tamil Nadu– I
74	38	B.A., Tamil	38206	Allied – 2 - History and Culture of Tamil Nadu– II
75	45	B.Com Accounting & Finance	45102	Economics for finance
76	45	B.Com Accounting & Finance	45623	Goods & Service Tax
77	62	B.Com Finance & Taxation	62102	Business Economics
78	62	B.Com Finance & Taxation	62626	Goods & Services Tax [GST] & Customs Law
79	63	B.Com Marketing Management	63102	Business Economics
80	63	B.Com Marketing Management	63304	Entrepreneurial Devlopment
81	63	B.Com Marketing Management	63302	Internet and Digital Marketing

Course Title: CORE VI - INTERNET AND DIGITAL MARKETING

Course Code	:2063310	Credits	: 04
L:T:P:S	: 4:0:0:0	CIA Marks	: 40
Exam Hours	: 03	ESE Marks	: 60

Learning objectives:

1. To highlight the emerging technologies in the area of marketing and familiarize the students with the trends.
2. To enable the students to understand the importance of Internet of Things in marketing.

Course Outcomes: At the end of the Course, the Student will be able to:

CO1	Understand the concept of Digital Marketing, categorization of Digital marketing and the website planning
CO2	Understand the concept of Search Engine Optimization techniques, Book marking and news Aggregators
CO3	Understand the concept of Social Media Optimization and identify various social media marketing
CO4	Explain the tools used for Search Engine Marketing such as Google Ad-words tools and Display marketing Techniques
CO5	Interpret the various analysis such as Google Analytics and social media Analytics

Mapping of Course Outcomes to Program Outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	3	3	2	3	2	3	3	3
CO2	3	3	3	2	3	2	2	2	2
CO3	3	3	3	2	3	2	3	3	3
CO4	3	3	3	2	3	2	2	2	2
CO5	3	3	3	2	3	2	3	3	3

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Module	Contents of the Module	Hrs.	CO
1	**Digital marketing** – Meaning, importance of digital marketing, Distinction from traditional marketing, ***new trends and current scenario of the world*** - Digital marketing a boon or a Bane – tool of success for companies - advantages to small and medium enterprises - Categorization of digital marketing for the business. **Web site** - levels of web site, Difference between blog, portal & website - Diagnosis of the present website and business- SWOT analysis of business, website and media or promotion plan - Setting up vision, mission and goals of digital marketing- Website planning &Creation	9	CO1
2	**Search Engine Optimization (SEO)** - On page optimization techniques- Off page Optimization techniques, - Book marking and news Aggregators, Preparation of Reports - Keywords, titles, meta tags etc.,	9	CO2
3	**Social Media Optimization (SMO)** - Introduction to social Media Marketing - Advanced Facebook Marketing - Word Press blog creation - Twitter marketing - LinkedIn Marketing - Google plus marketing – ***Instagram Marketing** – Multimedia – YouTube Marketing - Optimization process. – Influencer Marketing.	9	CO3
4	**Search Engine Marketing (SEM)** – Introduction - Tools used for Search engine Marketing - PPC , ***Google AdWords Tool** - Display advertising techniques - Report generation	9	CO4
5	**Analysis & Reporting Tools** - Google Analytics - Online Reputation Management - E-Mail Marketing - Affiliate Marketing - AdSense & Blogging - Social Media Analytics Meaning, Social Media Analytical Tools - Ad designing – **Opportunities in Internet & Digital Marketing.*	9	CO5

Reference Books:

1. Digital Marketing for Dummies, Ryan Deiss and Russ Hennesberry
2. Puneet Bhatia (2018) Fundamentals Of Digital Marketing, Pearson Publication
3. Google Adwords for Beginners: A Do-It-Yourself Guide to PPC Advertising, Cory Rabazinsky
4. Seema Gupta (2018) Digital Marketing, Tata McGrawHill
5. Blogging: A Practical Guide to Plan Your Blog: Start Your Profitable Home-Based Business with a Successful Blog, Jo and DaleReardon

Pattern for End Semester Examination

Semester Questions Pattern	Total Questions	To Answer Questions	Marks Per Question	Total Marks
Section – A	12	10	2	20
Section – B	7	5	7	35
Section – C	5	3	15	45
Total Marks				100

Syllabus for B.com Marketing Management From the Academic Year 2020-21

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Department of Marketing Management (Shift-II)

COURSE DELIVERY PLAN –

INTERNET AND DIGITAL MARKETING (SEMESTER-III)

Lecture	Module #	Topics	RBT levels	Co	Planned Date	Actual Date	Faculty Sign	Remarks	HOD Sign
1		Meaning of digital marketing	L2	1	1/7/2020	1/7/2020	VG	Completed	VG
		Importance of digital marketing	L1	1	3/7/2020	3/7/2020	VG	Completed	VG
		Distinction from traditional marketing	L3	1	6/7/2020	6/7/2020	VG	Completed	VG
		New trends in current scenario of the world	L2	1	8/7/2020	8/7/2020	VG	Completed	VG
		Digital marketing a boon or a bane	L3,L4, L5	1	9/7/2020	9/7/2020	VG	Completed	VG
		Tools of success for companies	L2	1	10/7/2020	10/7/2020	VG	Completed	VG
		Advantages to small and medium enterprises	L3,L4, L5	1	13/7/2020	13/7/2020	VG	Completed	VG
		Categorization of digital marketing for the business companies	L2	1	15/7/2020	15/7/2020	VG	Completed	VG
		Website-levels the website	L2	1	17/7/2020	17/7/2020	VG	Completed	VG
		Setting up vision mission and goals	L2	1	20/7/2020	20/7/20	VG	Completed	VG

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				20		
Search engine optimization	L2	2	22/7/2020	22/7/2020	RL Completed	VG
On page optimization techniques	L3,L4, L5	2	24/7/2020	24/7/2020	RL Completed	VG
Off page optimization techniques	L2	2	27/7/2020	27/7/2020	RL Completed	VG
Bookmarking	L3,L4, L5	2	29/7/2020	29/7/2020	RL Completed	VG
News aggregators	L2	2	31/7/2020	31/7/2020	RL Completed	VG
Preparation of reports	L3,L4, L5	2	5/8/2020	5/8/2020	RL Completed	VG
Keywords	L4	2	7/8/2020	7/8/2020	RL Completed	VG
Titles	L2	2	10/8/2020	10/8/2020	RL Completed	VG
Meta tags	L3,L4, L5	2	14/8/2020	14/8/2020	RL Completed	VG
Meta tags	L5	2	17/8/2020	17/8/2020	RL Completed	VG
Social media optimization	L2	2	19/8/2020	19/8/2020	RL Completed	VG
Introduction to social media marketing	L2	2	21/8/2020	21/8/2020	RL Completed	VG

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	Advanced Facebook marketing	L3,L4, L5	2	25/8/2020	25/8/2020	RL Completed VG
	WordPress blog creation	L2	3	27/8/2020	27/8/2020	RL Completed VG
3	Twitter marketing	L3,L4, L5	3	1/9/2020	1/9/2020	RL Completed VG
	LinkedIn marketing	L2	3	3/9/2020	3/9/2020	RL Completed VG
	Google plus marketing	L3,L4, L5	3	7/9/2020	7/9/2020	RL Completed VG
	Instagram marketing	L2	3	9/9/2020	9/9/2020	RL Completed VG
	Multimedia	L3,L4, L5	3	11/9/2020	11/9/2020	RL Completed VG
	Video marketing and optimization process	L5	3	14/9/2020	14/9/2020	RL Completed VG
	Search engine marketing	L2&L3	4	16/9/2020	16/9/2020	RL Completed VG
	Introduction to search engine marketing	L2&L3	4	18/9/2020	18/9/2020	RL Completed VG
	Tools used for search engine marketing	L2&L3	4	21/9/2020	21/9/2020	RL Completed VG
	PPC	L2&L3	4	23/9/2020	23/9/2020	RL Completed VG
4	Google ad words tool	L2&L3	4	25/9/2020	25/9/2020	RL Completed VG

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Display advertising techniques	L3,L4, L5	4	29/9/2020	29/9/2020	RQ	Completed	VG
Display advertising techniques	L2	4	1/10/2020	1/10/2020	RQ	Completed	VG
Report generation	L3,L4, L5	4	5/10/2020	5/10/2020	RQ	Completed	VG
Report generation	L2	4	7/10/2020	7/10/2020	RQ	Completed	VG
Other Techniques	L4	4	9/10/2020	9/10/2020	RQ	Completed	VG
Analysis and report tool	L2	5	12/10/2020	12/10/2020	RQ	Completed	VG
Google Analytics	L2	5	14/10/2020	14/10/2020	RQ	Completed	VG
Online reputation management	L3&L4	5	16/10/2020	16/10/2020	RQ	Completed	VG
Email marketing	L2	5	20/10/2020	20/10/2020	RQ	Completed	VG
Affiliate marketing	L4	5	26/10/2020	26/10/2020	RQ	Completed	VG
Ad sense and blogging	L2	5	28/10/2020	28/10/2020	RQ	Completed	VG
Social media analytics meaning	L4	5	2/11/2020	2/11/2020	RQ	Completed	VG
Social media analytics tool	L2	5	5/11/2020	5/11/2020	RQ	Completed	VG

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Ad designing	L4	5	9/11/2020	9/11/2020	Completed
Opportunities in digital marketing and internet	L2,l4	5	11/11/2020	11/11/2020	Completed
Unit -1	L1		13/11/2020	13/11/2020	Completed
Unit -1	L1		18/11/2020	18/11/2020	Completed
Unit -2	L1		23/11/2020	23/11/2020	Completed
Unit -2	L1		26/11/2020	26/11/2020	Completed
Unit -3	L1		1/12/2020	1/12/2020	Completed
Unit -3	L2		3/12/2020	3/12/2020	Completed
Unit -4	L4		7/12/2020	7/12/2020	Completed
Unit -4	L4, L5		9/12/2020	9/12/2020	Completed
Unit -5	L4, L5		11/12/2020	11/12/2020	Completed
Unit -5	L4, L5		15/11/2020	15/11/2020	Completed

L1 - Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 – Creating

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Unit 4	L2	29/12/2020	29/12/20 20
Unit 5	L4	30/12/2020	30/12/20 20
Unit 5	L4, L5	31/12/2020	31/12/20 20
Question Paper Solving	L3,L4		
Question Paper Solving	L3,L4		

VG Completed VG VG Completed VG VG Completed VG VG Completed VG VG Completed VG

L1 - Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 – Creating

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Websites

What is a Website 🤔?

- A website is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. Notable examples are wikipedia.org, google.com, and amazon.com. All publicly accessible websites collectively constitute the World Wide Web.

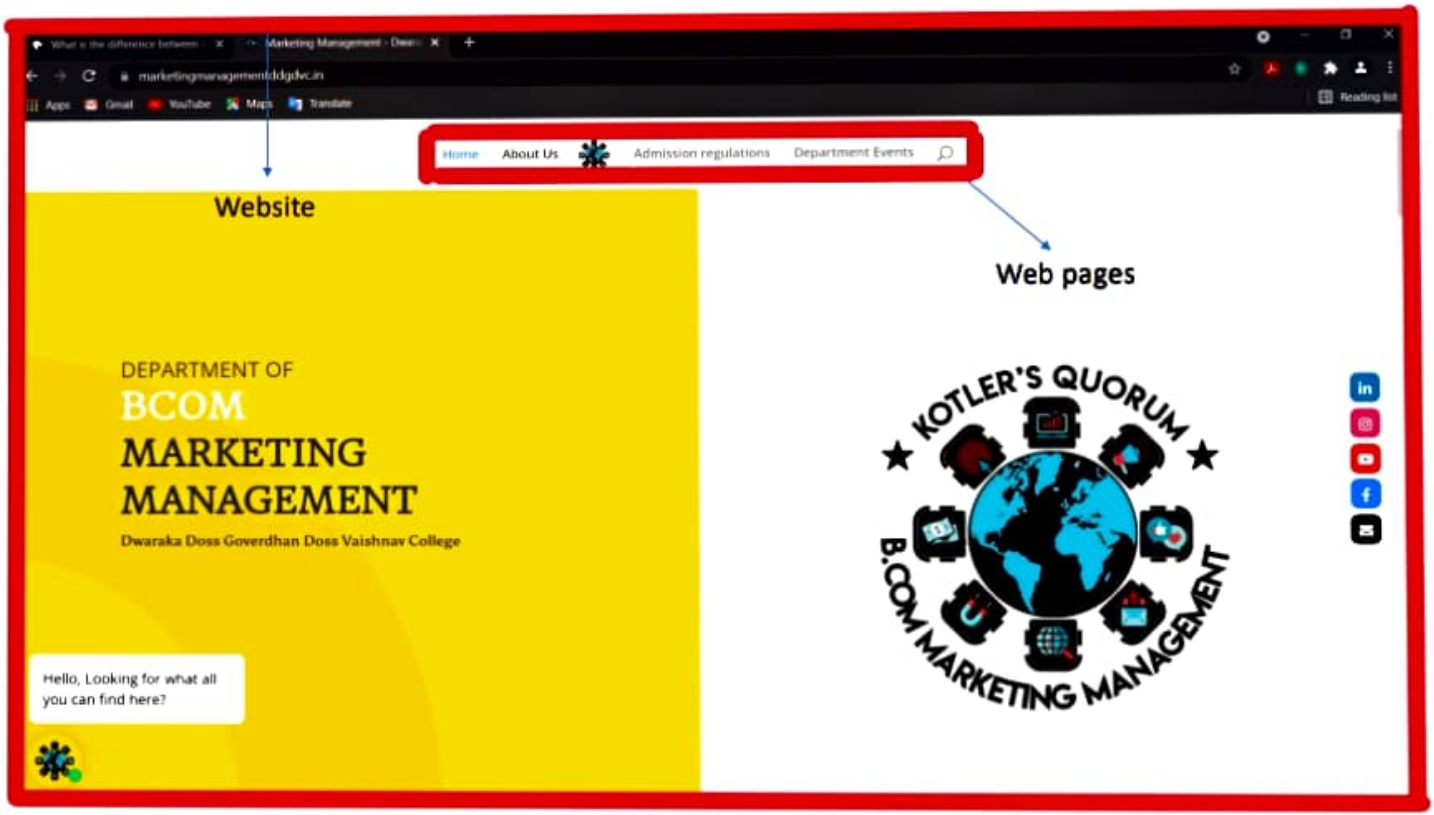
What is a Web Page 🤔?

- A web page is a document(information) provided by a website and displayed to a user in a web browser(Google/Bing/Safari). A website typically consists of many web pages linked together in a coherent fashion.

Now you can ask “What’s the difference between website and web page”

- In simple words ***“Website is a collection of web pages which are grouped together”*** and ***“Web page is nothing but a document that can be displayed in a web browser”***

- Web browsers are nothing but our search engines i.e. Google, Bing, Firefox etc.


Home
About Us
Admission regulations
Department Events
Website
Web pages
DEPARTMENT OF
BCOM
MARKETING
MANAGEMENT
Dwaraka Doss Goverdhan Doss Vaishnav College
Hello, Looking for what all you can find here?
KOTLER'S QUORUM
B.COM MARKETING MANAGEMENT

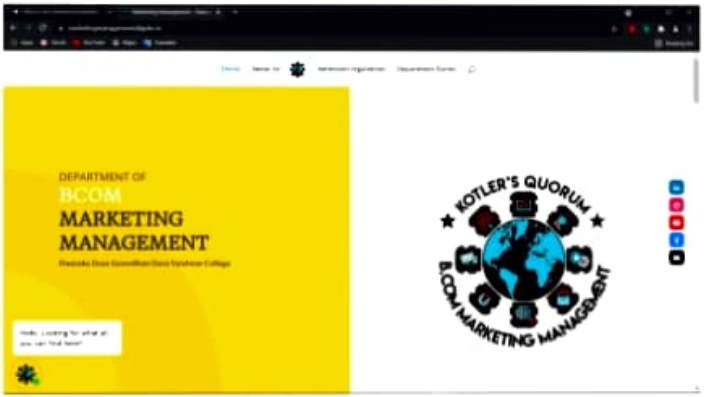
Levels Of Website 

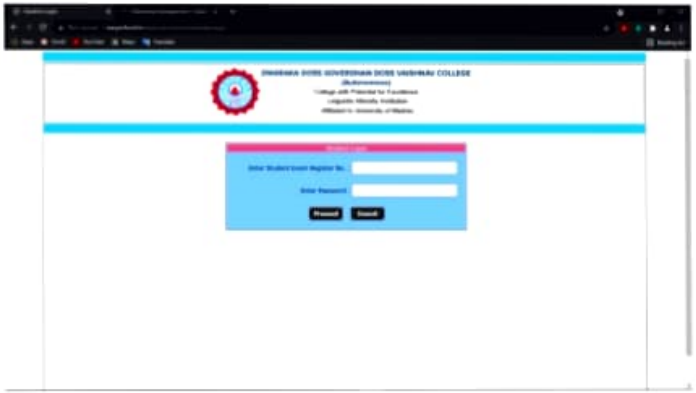
SINGLE PAGE/ BROCHURE STYLE	CLASSIC FIVE PAGE WEBSITE	MEDIUM LEVEL WEBSITE	ENTERPRISE LEVEL WEBSITE
Simple site and easy to maintain	Basic 5 page website	Advanced business level websites	Websites which are having various products and are spread across the globe
This level of website are with limited navigations and with content which is more specific and visitors can easily navigate the site with few clicks	These kind of websites are more preferred by freelancers and small business. These sites contain static 5 pages namely Home, About me, Contact us, Product page, Blogs.	Preferred by medium and large size companies who have a lot of product or service to offer their visitors	These websites contain more than 10 webpages and they offer various types of product and they also run their operations in multiple geographical locations.

Difference between Portal & Website

Portal	Website
Portals are for limited traffic. Most web portals require log in which allows site to deliver more specific content.	Websites are for driving traffic. Websites are destinations that everyone can get to and are generally designed for broader audience.
Portals are user centric.	Websites are owned by an organization.
There is a two way communication between portal and website	User can not interact with a website

Examples of Website and Portal





What are Blogs? 🤔

- Blogs are a type of website which are updated on a regular basis, Blogs can be called as informational websites. Bloggers share their idea/information on public domains by writing blogs. Blogs are a common and frequently used methods for generating traffic to websites and also influencing readers to purchase a particular product or use particular service.

SWOT of a website  !

- Strength of a website relays on the amount of relevant content on the website. The more specific a website is the more SEO friendly it becomes. Website owners keep their focus on one particular field and all the content on they website is of the same category. Example, A digital marketing website concentrates on sharing all digital marketing related content. If it starts posting irrelevant content like posting blogs about sports, politics etc. Then the number of viewers and impressions for the particular website will reduce because the relativity of content has become minimum. And this becomes the weakness of a particular website.

What is SEO🤔?

- SEO (Search Engine Optimization) is the process of improving your website to increase the visibility of the site when someone searches for a product or service related to your business.

SEO can be classified into 3 types

1. On-page SEO
2. Off-page SEO

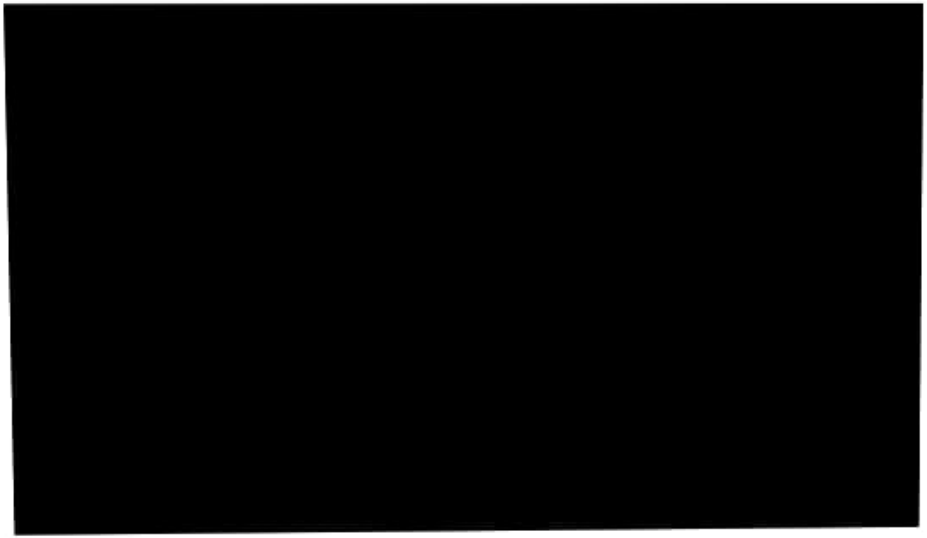
How does SEO work🤔?

- When your website is made public i.e. When its made visible for people to search on the web and they discover your website it means that the search engine has completed its standard 3 process
-

Namely

1. Crawling (Identifying new links)
2. Indexing (Taking the content backup and putting it up in Google database)
3. Ranking (Relevant websites)

Explanation on how SEO works



What is On-page SEO🤔?

- On-page SEO is the work that you do on your website for your Pages and Blogs to rank on top when a relevant keyword is searched on the web. When a website is created, a few factors are taken into account in order to make the website rank on top for a relevant search result.
- SEO is done for every page and blog created or posted.

Factors affecting On-page SEO

- Blog title
- Page title
- Meta Description
- URL structure
- Header Tags - H1,H2,H3.
- Keyword in the intro
- Keyword frequency
- Keyword density
- LSI Keyword
- Unique content
- Grammar and spelling check
- Image file name
- Image alt tag
- Internal link
- Outbound link
- Bold
- Italic
- OG image 1200*630
- OG title
- OG description

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE

DEPARTMENT OF MARKETING MANAGEMENT

INTERNET AND DIGITAL MARKETING-CIA II

TIME- 1.5 HRS

MAX.MARKS-50

SECTION-A

Multiple choice questions. (20 x 1= 20)

1)What are some examples of digital marketing?

a) Social Media Marketing
b) Search Engine Marketing
c) Search Engine Optimisation
d) All of the above.

2) What is the best way to promote a business with social media?

a) Choose the right platform
b) Encourage engagement
c) Provide Value and Don't Over-Promote
d) All of the above

3) Which of the following can be termed as good keyword selection and placement strategies?

a) Targeting synonyms of the main keyword.
B) Targeting the highest searched keywords only.
c) Copying competitor keywords.
d) Optimizing five or more keywords per page.

4) Which of the following is a type of digital marketing activity?

A. Email marketing.
B. Social web marketing.
C. Viral marketing.
D. All of the above

5) Which of the following is not a traditional form of digital marketing?

A. radio
B. TV
C. Billboard
D. All of the above

6) What is not true about digital marketing?

A. Digital marketing is any form of marketing products or services that involves electronic devices.
B. Digital marketing can be done online
C. Digital marketing cannot be done online
D. Digital marketing is often referred to as online marketing, internet marketing or web marketing.

7) Marketing that moves away from a transaction-based effort to a conversation (i.e. two-way dialogue) and can be described as a situation or mechanism through which marketers and a customer (e.g. stakeholders) interact usually in real-time is known as:

A. Direct Marketing
B. Eectronic marketing
C. Interactive Marketing
D. Indirect Marketing

8) A website's front - or home page should include_____

A. A lengthy description of the organization received
B. Logos depicting awards the site's designers have
C. Links to other websites
D. None of the above

9) Digital marketing is becoming very popular due to the?

A. increase in internet users
B. an increase in mobile phone users
C. increase in digital content consumption
D. All of the above

10) The _____ plays a major role in better content creation.

A. icon
B. keyword
C. description
D. viewport

11. _____ help in providing the user the gist of what is the article about.

A. Meta Description
B. Meta tags
C. Meta Description or Meta tags
D. None of the above

12) Pages that are linked from other search engine is known as _____.

A. crawled pages
B. indexed pages
C. unindexed pages
D. root pages

13) Which of the following tactics can harm your search rankings?

A. Adding navigation links to your pages template
B. Using text that is the same color as the background of your page.
C. Linking to your site from other websites
D. None of the above

14) Websites used for building network with friends and relatives Is called as _____.

A. Social networking
b. Blogging
c. Net banking
d. e-Commerce

15) Websites used to sell and buy something are categorized under_____.

a. E-Commerce Websites
b. Social networking sites.
c. Search engines
d. Entertainment sites.

16) Google is an example of _____.

a. Social network
b. Search Engine
c. Entertainment
d. None of these.

17) Which of the following is not used as a blogging platform?

a. TypePad
b. Blogger
c. WordPress
d. Pinterest

18) What is the name of the location address of the hypertext documents?

a. Uniform Resource Locator
b. Web server
c. File
d. Web address

19) What are shared on the Internet and are called as Web pages?

a. Programs
b. Cables
c. Hypertext documents
d. None

20) The first webpage added to an application is the _____ page.

A. Default.aspx
b. Home.aspx
c. Index.aspx
d. Start.aspx

SECTION-B

Answer all of the questions. **(6 x 5= 30)**

1)What are the various levels of the website. Explain each type.

2) What is SEO? Explain any five factors affecting on-page SEO.

3) What is a website? Provide differences between a website and a web page.

4) Mention the differences between traditional marketing and Digital Marketing.

5) Digital Marketing a Boon or Bane? Give illustrations to support your answer.

6) a) Explain the following terms:

i) Blogs

ii) Portal

b) Explain the differences between portal and website.

Due 28 Jan, 12:01 pm

Generic skill

100 points

Add class comment

As instructions and example showed yesterday in the session. Create a blog and a poster related to block title and identify the TA.

Your work

Handed in

Manasa SJ Digital marketing.docx

Your work

Handed in

Attachments

Manasa SJ Digital marketing.docx

Private comments

Add comment to Gayathri V Dgvc

Unsubmit

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Department of Corporate Secretaryship

INCOME TAX LAW, THEORY & PRACTICE

Subject code: 2006517 **Total hours –90** **Credits -5**

Course Description - The course enables students to compute the total income under Five heads of income and to calculate the tax

UNIT-I

Income Tax Act 1961 – Definition of important terms – Income, Person, Assessee, Assessment Year and Previous Year - Residential Status – Incidence of Tax – Incomes exempt from Tax

Salaries - Different forms of salary – Provident Funds – Allowances – Perquisites – Other items included in Salary

UNIT-II

Computation of Income from House Property – Let-out house – Self occupied house – Deduction allowed from house property – Unrealized rent – Loss under the head house property-.

Computation of profits and gains of business and profession – Admissible deductions - Specific Disallowances – Depreciation – Loss under the head business and profession..

UNIT-III

Capital Assets – Meaning and Kinds – Procedure for computing Capital Gains – Cost of Acquisition – Exemption of Capital Gains – Loss under head Capital Gains.

Income chargeable to tax under the head Income from Other Sources – Dividends – Interest on Securities – Casual Income – Other Incomes – Deduction from Income from Other Sources – Loss under the head Other Sources.

UNIT-IV

Provisions relating to income of other persons to be clubbed in Assessees. Total Income – Income of minor Child – Deemed Incomes.- Provisions relating to Set-off & Carry forward and Set-off of Losses.

Deductions in respect of certain payments – Deduction in respect of income (Deductions applicable to Individuals only)

UNIT-V

Income tax authorities – procedure for assessment – PAN (Permanent Account Number) – Types of assessment.

Recommended Texts:

1. Income Tax law and practice, V.P.Gaur&D.B.Narang -, Kalyani Publishers,2019
2. Students Guide to Inome Tax ,Dr. Vinod K Singhania& Dr. KapilSinghania - Tamann Publications,2019
3. T.S. Reddy & Dr. Y. Hari Prasad Reddy - Income Tax theory, law and practice.

Reference Books:

1. Direct Taxes, Dr. Vinod K Singhania& Dr. KapilSinghania - Tamann Publications, 2019
2. T N Manoharan, Income Tax – Law & Practice, Snow White Publishers.2019

Course Outcomes

CO1	Define important terms under the Income Tax Act 1961, explain the concept of Residential Status, identify the residential status, compute the incidence of Tax. Understand the concept of Salary, classify its different forms, identify and analyze the taxability of various allowances and perquisites compare different types of Provident funds.
CO2	Compare and appreciate the taxability of House properties used for different purposes. Identify the deductions and explain the taxability of Unrealized rent and loss under the head House property. Analyze the admissible deductions and specific disallowances for computing Income from Profits and Gains of Business and Profession. Explain the treatment of Depreciation and Loss under the head Business and Profession.
CO3	Define Capital assets under the Income Tax Act, 1961. Explain the concept of Capital Gains, list out the exemptions for Capital Gains, compute the Taxable Capital Gains. Understand the concept of TDS, identify and analyze different incomes taxable under other sources, Evaluate the taxability of various incomes and deductions available for each income, compute the taxable income under other sources.
CO4	Compare and appreciate the clubbing up provisions under different situations. Identify the losses that can be set off inter source and intra source. Explain the provisions for carry forward and set off of losses, Compute the Total Income after setoff and carry forward of losses.
CO5	Analyze the admissible deductions from Gross Total Incomes and specific limits and provisions for availing various deductions Differentiate between the deductions for incomes and deductions for investments / expenses. Compute the Deductions available under various sections
CO6	Discuss the powers and duties of various Income Tax Authorities, Appreciate the need and use of PAN, Explain the procedure for Assessment and discuss the different types of Assessment.

Mapping of CO v/s PSO

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	2	-	2	2	2	3	-
CO2	2	-	2	2	2	3	-
CO3	2	-	2	2	2	2	-
CO4	2	-	2	2	2	2	-
CO5	2	-	2	2	2	2	-
CO6	2	-	2	2	2	2	-

Signature of the HOD

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Department: Corporate Secretaryship - Shift – I & II		Academic Semester: V	
Semester: V	Section: A	Course Code: 2006517	Course: Income Tax law and Practice
Course Instructor: Mr.M.Balaji		Contact Hours /week: 6	No. of credits: 05
CIA: 040		ESE : 100	Exam Hours: 03

Prerequisites if any:

Code No	Course Name	Description	Semester
2006517	**Income Tax law and Practice**	The course enables students to compute the total income under Five heads of income and to calculate the tax	V

Content delivery: Chalk and Chat, Power Point appearance, question and Coursework

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	**Define important terms under the Income Tax Act 1961, explain the concept of Residential Status, identify the residential status, compute the incidence of Tax. Understand the concept of Salary, classify its different forms, identify and analyze the taxability of various allowances and perquisites compare different types of Provident funds.**
CO2	Compare and appreciate the taxability of House properties used for different purposes. Identify the deductions and explain the taxability of Unrealized rent and loss under the head House property. Analyze the admissible deductions and specific disallowances for computing Income from Profits and Gains of Business and Profession. Explain the treatment of Depreciation and Loss under the head Business and Profession.
CO3	Define Capital assets under the Income Tax Act, 1961. Explain the concept of Capital Gains, list out the exemptions for Capital Gains, compute the Taxable Capital Gains. Understand the concept of TDS, identify and analyze different incomes taxable under other sources, Evaluate the taxability of various incomes and deductions available for each income, compute the taxable income under other sources.
CO4	Compare and appreciate the clubbing up provisions under different situations. Identify the losses that can be set off inter source and intra source. Explain the provisions for carry forward and set off of losses, Compute the Total Income after setoff and carry forward of losses.
CO5	Analyze the admissible deductions from Gross Total Incomes and specific limits and provisions for availing various deductions Differentiate between the deductions for incomes and deductions for investments / expenses. Compute the Deductions available under various sections

Discuss the powers and duties of various Income Tax Authorities, Appreciate the need and use of PAN, Explain the procedure for Assessment and discuss the different types of Assessment.

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1	2	2	3	2	3	3	3	3	3
CO2	3	3	3	2	2	1	3	3	2	3	3
CO3	3	1	1	1	3	1	2	3	2	3	2
CO4	1	3	3	1	2	1	2	3	3	3	3
CO5	2	1	2	2	3	3	3	3	3	3	3

Correlation levels: 1- Weak 2-Medium 3-High

Assessment Methodologies:

Sl. No.	Description	Type
1.	Student Assignment	Direct
2.	Internal assessment	Direct
3.	University exam	Direct
4.	Student feedback	Indirect
5.	Alumni feedback	Indirect
6.	Employers feedback	Indirect

COURSE DELIVERY PLAN

Module #	Topics	CO	Planned Date	Actual Date	Faculty Sign	Remarks	HOD Sign
I	Income Tax Act 1961 – Definition of important terms – Income, Person, Assessee, Assessment Year and PreviousYear.	1					
	Residential Status – Individual, firm, AOP, HUF and Companies	1					
	Incidence of Tax – Incomes exempt from Tax	1					
II	Different forms of salary – Provident Funds – Allowances – Perquisites – Other items included in Salary ..	2					
	Qualifying amount for deduction u/s 80(c)	2					
	Income from salary – Comprehensive problems.	2					
	Income from salary – Comprehensive problems.	2					
	Income from salary – Comprehensive problems.	2					
III	Computation of Income from House Property – Let-out house – Self occupied house – Deduction allowed from house property – Unrealized rent – Loss under the head house property.	3					
IV	Introduction – Computation of profits and gains of business and profession	4					
	Admissible deductions – Specific Disallowances –	4					
	Depreciation – Loss under the head business and profession.	4					
V	Income tax authorities – procedure for assessment – PAN (Permanent Account Number) – Types of assessment.	5					

L1 - Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 - Creating

TEXT BOOKS:

1. Income Tax law and practice, V.P.Gaur&D.B.Narang -, Kalyani Publishers,2019
2. Students Guide to Inome Tax ,Dr. Vinod K Singhania& Dr. KapilSinghania - Tamann Publications,2019
3. T.S. Reddy & Dr. Y. Hari Prasad Reddy - Income Tax theory, law and practice.

REFERENCE BOOKS:

1. Direct Taxes, Dr. Vinod K Singhania& Dr. KapilSinghania - Tamann Publications, 2019
2. T N Manoharan, Income Tax – Law & Practice, Snow White Publishers.2019

Assessment rubrics that is going to be adopted for direct attainment is depicted in below table

Level of Achievement	Elaboration on Course Grading Description	Bench Mark Set (Out of 40)
Excellent (A)	The Student's performance is outstanding in almost all the intended course learning outcomes	28 to 40
Good (B)	The student's performance is good in most of the intended course learning outcomes.	20 to 27
Marginal (C)	The student's performance is barely satisfactory. It marginally meets the intended course learning outcomes	16 to 19
Fail (F)	The Students performance is inadequate. Student fails to meet many of the intended course learning outcomes	Less than 16

NOTE: Have different Assessment pattern for tests, assignments, quizzes etc.

Course Instructor

Dept. IQAC Coordinator

HOD

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Arumbakkam, Chennai – 600 106
Department of Corporate Secretaryship – Shift – II
Mr. Franklin Edburg
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	Cost A/c – III-A	CLSP-II-B			F A/c I-C
Day 2		Cost A/c – III-A	CLSP-II-B	Cost A/c – III-D	
Day 3		F A/c I-C		Cost A/c – III-C	CLSP-II-B
Day 4	F A/c I-C	F A/c I-D			Cost A/c – III-D
Day 5			Cost A/c – III-B	F A/c I-D	CLSP-II-B
Day 6	Cost A/c – III-C		Cost A/c – III-A	CLSP-II-B	

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Department of Corporate Secretaryship – Shift – II

Dr. R. Vasudevan
Assistant Professor

Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	Cost A/c-III-B		POM-I-A		CLSP-II-A
Day 2			Cost A/c-III-B		CLSP-II-A
Day 3	POM-I-B	POM-I-A		Cost A/c-III-A	CLSP-II-A
Day 4	CLSP-II-A	Cost A/c-III-C		Cost A/c-III-A	
Day 5	Cost A/c-III-D	POM-I-A			Cost A/c-III-C
Day 6			CLSP-II-A	Cost A/c-III-D	

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Dr. A. Karthik
Assistant Professor

Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	F A/c I-A			CL – III-C	F A/c I-B
Day 2		F A/c I-B	Corp A/cs-II-A	CL – III-C	
Day 3			CL – III-D	Corp A/cs-II-A	CL – III-C
Day 4	F A/c I-A		CL – III-C	Corp A/cs-II-D	
Day 5		Corp A/cs-II-B		CL – III-C	CL – III-D
Day 6	Corp A/cs-II-C		Corp A/cs-II-B	CL – III-C	

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Dr. R. K. Gopinath
Assistant Professor

Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		ED-III-C	F A/cs – I-D		ED-III-D
Day 2	F A/cs – I-C			F A/cs – I-D	
Day 3		Corp A/cs – II-D		ED-III-D	F A/cs – I-C
Day 4	ED-III-C		Corp A/cs – II-C	ED-III-D	
Day 5	Corp A/cs – II-C	Corp A/cs – II-D		ED-III-D	
Day 6	Corp A/cs – II-B		NME	ED-III-B	NME

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Ms. P. Jeyanthi
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	F A/cs – I-B				CLSP-II-C
Day 2	F A/cs – I-A		BKG-III-D		CLSP-II-C
Day 3		F A/cs – I-A	BKG-III-C		CLSP-II-C
Day 4	CLSP-II-C		F A/cs – I-B		BKG-III-C
Day 5		CLSP-II-C	BKG-III-D		
Day 6	NME	NME	NME	NME	NME

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Department of Corporate Secretaryship – Shift – II
Ms. R. Indumathi
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		Mkg –I-D		BKG-III-A	Corp A/cs-II-D
Day 2	BKG-III-C		Corp A/cs-II-D	BKG-III-A	
Day 3		BKG-III-C		Corp A/cs-II-D	BKG-III-A
Day 4	BKG-III-A	Mkg –I-C		Mkg –I-D	
Day 5	BKG-III-A		Mkg –I-C		Corp A/cs-II-C
Day 6			Corp A/cs-II-D	NME	NME

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Department of Corporate Secretaryship – Shift – II
Dr. Rajachithra Manivanan
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	POM-I-C		Cost A/c-III-C	Cost A/c-III-D	
Day 2	POM-I-C			EVS-II-B	Cost A/c-III-D
Day 3	Cost A/c-III-D	Cost A/c-III-B		POM-I-C	
Day 4			BUS-II-A		Cost A/c-III-B
Day 5	BUS-II-A	POM-I-C	Cost A/c-III-C		
Day 6	Cost A/c-III-D	Cost A/c-III-B		Cost A/c-III-A	EVS-II-A

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Department of Corporate Secretaryship – Shift – II
Mr. S. Rajesh Kanan
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	POM-I-D	Corp A/c-II-A		Corp A/c-II-B	Corp A/c-II-B
Day 2			POM-I-D	Corp A/c-II-A	
Day 3		IT-III-D	POM-I-D		IT-III-B
Day 4			IT-III-B	IT-III-C	
Day 5			POM-I-D		
Day 6	IT-III-A		IT-III-D		IT-III-C

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Dr. P. M. Ramesh Kumar
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		BUS-II-C	CL-III-D	BUS-II-D	
Day 2			BUS-II-C	Mktg-I-C	BUS-II-B
Day 3	Mktg-I-D	BUS-II-A	Mktg-I-C	BUS-II-B	
Day 4	Mktg-I-D		CL-III-D	BUS-II-B	
Day 5	BUS-II-B	Mktg-I-D			BUS-II-D
Day 6	NME	NME			

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Affiliated to University of Madras
Arumbakkam, Chennai – 600 106
Department of Corporate Secretaryship – Shift – II
Mr. R. Sathyanarayanan
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1			CL-III-C	BUS-II-A	CL-III-A
Day 2	POM-I-B		CL-III-A	CL-III-B	CL-III-D
Day 3	CL-III-A	BUS-II-B		POM-I-B	
Day 4	BUS-II-B		BUS-II-A	POM-I-A	
Day 5		POM-I-B	CL-III-A		
Day 6	BUS-II-A	CL-III-A	CL-III-C		

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Department of Corporate Secretaryship – Shift – II
Mrs. P. Janaki
Assistant Professor
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		Mktg-I-C	ED-III-A		ED-III-B
Day 2	Mktg-I-D			BUS-II-C	ED-III-A
Day 3		Mktg-I-B	ED-III-A	ED-III-B	
Day 4			BUS-II-D	BUS-II-C	ED-III-A
Day 5		ED-III-C		Mktg-I-C	ED-III-A
Day 6	ED-III-B			BUS-II-B	ED-III-A

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Department of Corporate Secretaryship – Shift – II

Dr. S. Subha
Assistant Professor

Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		Mktg-I-B		BUS-II-C	Mktg-I-A
Day 2		Mktg-I-A	ED-III-C	BUS-II-D	
Day 3		BUS-II-C	Mktg-I-A		BUS-II-D
Day 4	EVS-II-D		Mktg-I-A	Mktg-I-B	
Day 5	Mktg-I-B		Mktg-I-A		BUS-II-A
Day 6			EVS-II-C	ED-III-C	

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Department of Corporate Secretaryship – Shift – II
Mr. S. Subramaniyan
Guest Lecturer
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1		CLSP-II-D		BKG-III-B	
Day 2		BKG-III-B		F A/cs-I-A	CLSP-II-D
Day 3	BKG-III-B	F A/cs-I-C			BKG-III-D
Day 4		F A/cs-I-B	F A/cs-I-C	BKG-III-B	
Day 5		BKG-III-D		F A/cs-I-A	BKG-III-B
Day 6	CLSP-II-D				BKG-III-B

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Department of Corporate Secretaryship – Shift – II

Ms. V. Geetha
Assistant Professor

Time Table

Day Order / Hrs	1	2	3	4	5
Day 1					ED-III-C
Day 2	ED-III-D		Mktg-I-B		ED-III-B
Day 3			ED-III-B		Mktg-I-D
Day 4		ED-III-B	Corp A/c-II-B	Corp A/c-II-A	
Day 5	Corp A/c-II-D	Corp A/c-II-A	POM-I-B	CL-III-B	
Day 6		ED-III-C		Corp A/c-II-C	ED-III-B

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Department of Corporate Secretaryship – Shift – II
Mr. D. Prem Kumar
Assistant Professor (Part-Time)
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	IT-III-C	IT-III-A			
Day 2	IT-III-B	IT-III-D			
Day 3					
Day 4	IT-III-D	IT-III-A			
Day 5	IT-III-B	IT-III-C			
Day 6					

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Department of Corporate Secretaryship – Shift – II
Mr. M. Balaji
Guest Lecturer (Part-Time)
Time Table

Day Order / Hrs	1	2	3	4	5
Day 1	IT-III-D	IT-III-B			
Day 2	IT-III-A	IT-III-C			
Day 3	IT-III-C	IT-III-A			
Day 4	IT-III-B				
Day 5	IT-III-C				
Day 6					

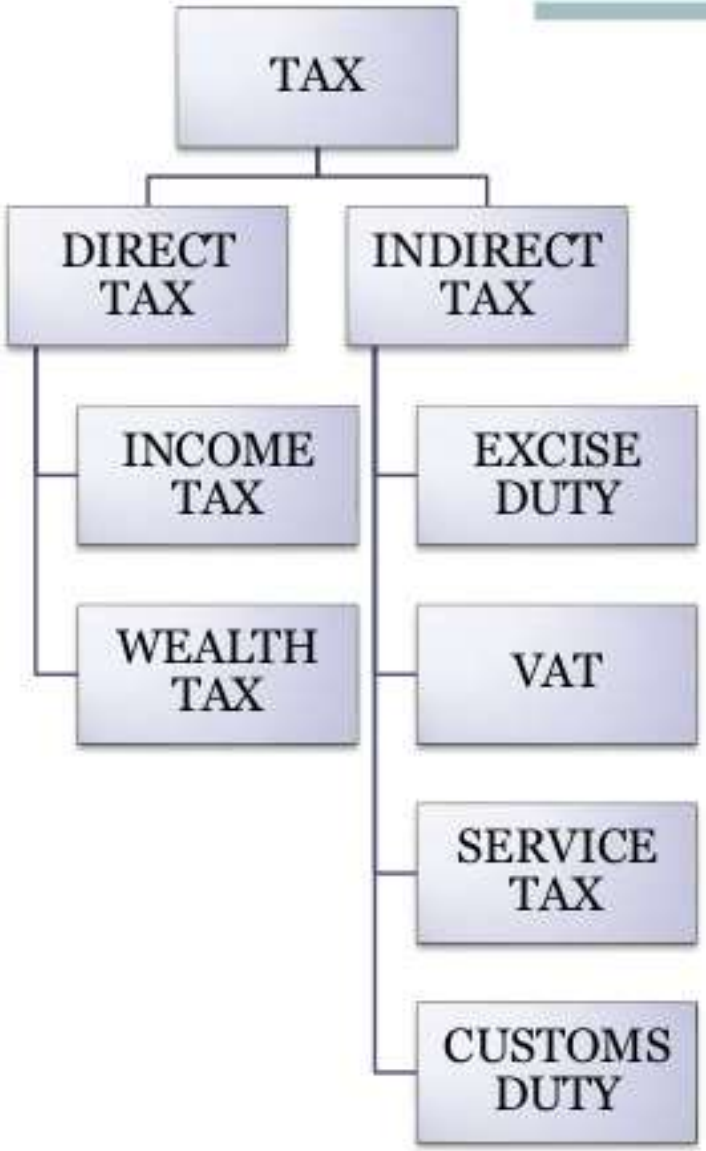
BASIC CONCEPTS OF INCOME TAX

WHAT IS TAX?

- Tax is a compulsory contribution to state revenue, levied by the government on workers' income and business profits, or added to the cost of some goods, services, and transactions. It may be direct tax or indirect tax.
- Direct tax is a tax, such as income tax, which is levied on the income or profits of the person who pays it, rather than on goods or services.
- Indirect Tax is levied on goods and services rather than on income or profits.

INTRODUCTION

- The present law of income tax is contained in the Income Tax Act, 1961. The Income tax Act contains the provisions for determination of taxable income, determination of tax liability, procedure for assessment, appeal, penalties and prosecutions. It also lays down the powers and duties of various income tax authorities.
- The Income Tax Law comprises The Income Tax Act 1961, Income Tax Rules 1962, Notifications and Circulars issued by Central Board of Direct Taxes (CBDT), Annual Finance Acts and Judicial pronouncements by Supreme Court and High Courts.


TAX
DIRECT TAX
INDIRECT TAX
INCOME TAX
WEALTH TAX
EXCISE DUTY
VAT
SERVICE TAX
CUSTOMS DUTY

INCOME

As per [Section 2(24)], Income includes :

1. Profits or gains of business or profession.
2. Dividend.
3. Voluntary Contribution received by a Charitable / Religious Trust or University / Education Institution or Hospital
4. Value of perquisite or profit in lieu of salary taxable u/s 17 and special allowance or benefit specifically granted either to meet personal expenses or for performance of duties of an office or an employment of profit.
5. Export incentives, like Duty Drawback, Cash Compensatory Support, Sale of licences etc.
6. Interest, salary, bonus, commission or remuneration earned by a partner of a Firm from such Firm.

7. Capital Gains chargeable u/s 45.
8. Profits and gains from the business of banking carried on by a cooperative society with its members.
9. Winnings from lotteries, crossword puzzles, races including horse races, card games and other games of any sort or from gambling or betting of any form or nature whatsoever.
10. Deemed income u/s 41 or 59.
11. Sums received by an assessee from his employees towards welfare fund contributions such as Provident Fund, Superannuation Fund etc.
12. Amount received under Keyman Insurance Policy including bonus thereon.

13. Amount received under agreement for (a) not carrying out activity in relation to any business, or (b) not sharing any knowhow, patent, copyright etc.
14. Benefit or perquisite received from a Company, by a Director or a person holding substantial interest or a relative of the Director or such person.
15. Gift as defined u/s 56 (2)(vi) . Any sum of money exceeding Rs. 50,000, received by an Individual or a HUF from any person during the previous year without consideration.
16. Any consideration received for issue of shares as exceeds the fair market value of the shares referred to in Section 56(2)(vii)(b).
17. Any sum of money referred to in clause (ix) of Sub-Section (2) of section 56.

ASSESSEE

As per section 2(7) of the Act, assessee means a person by whom any tax or any other sum of money (i.e. interest, penalty etc.) is payable under the Act and includes:

a) every person in respect of whom any proceeding under this Act has been taken for the assessment of his income or assessment of fringe benefits or of the income of any other person in respect of which he is assessable or to determine the loss sustained by him or by such other person or to determine the amount of refund due to him or to such other person.

b) every person who is deemed to be an assessee under any provision of this Act.

c) every person who is deemed to be an assessee in default under any provision of this Act.

- ASSESSMENT YEAR [SECTION 2(9)]

  "Assessment year" means the period of twelve months commencing on 1st April every year and ending on 31st March of the next year. Income of previous year of an assessee is taxed during the following assessment year at the rates prescribed by the relevant Finance Act.

- PREVIOUS YEAR (SECTION 3)

  Income earned in a year is taxable in the next year. The year in which income is earned is known as previous year. From the assessment year 1989-90 onwards, all assessees are required to follow financial year (i.e. April 1 to March 31) as previous year. The uniform previous year has to be followed for all sources of income.

Income Tax is computed on the total income of the previous year of every person in the assessment year. However, there are five exception to this rule:

i. Assessment of non-residents in respect of their income from shipping business (Section 172).
ii. Assessment of persons leaving India (Section 174).
iii. Assessment of association of persons or body of individuals or artificial juridical person formed for a particular event or purpose (section 174A).
iv. Assessment of persons trying to alienate their assets with the object of avoiding liability to tax (Section 175).
v. Assessment of the income from discontinued business

PERSON

As per section 2(31), Person includes:

- an individual
- a Hindu undivided family
- a company
- a firm
- an association of persons or a body of individuals whether incorporated or not
- a local authority
- every artificial, juridical person, not falling within any of the above categories

Residuary Nature

It must be remembered that IFOS is only a residuary head of income.

An income which is not taxable under any other head and which is not tax free will fall under this head

How to check if an income can be taxed under the head IFOS?

1. Is it exempt?
2. Is it taxable under any specific head of income?
3. Is it a capital receipt
4. If the answer to all the questions is “NO” then, it is taxable under the head IFOS

Income from Other Sources – which sections apply?

- Section 56 lists down what can be taxed under the head of IFOS
- Section 57 lists down the deductions available under the head IFOS
- Section 58 lays down the amounts **NOT** deductible
- Section 59 lays down that Section 41(1) would apply to IFOS also

Section 56

- Dividends other than dividend exempt u/s. 10(34)/ 10(35) – for e.g. dividend from foreign companies/co-op. banks/co-op societies etc. **& also deemed dividend**;
- Winnings from lotteries, crossword puzzles, races, horse races, card games, other games of any sort, gambling or betting;
- income by way of interest on securities, if the income is not chargeable to income-tax under the head "Profits and gains of business or profession"

Section 56

- income from machinery, plant or furniture belonging to the assessee and let on hire (if its not chargeable to income-tax under the head “Profits and gains of business or profession”)
- where an assessee lets on hire machinery, plant or furniture belonging to him and also buildings, and the letting of the buildings is inseparable from the letting of the said machinery, plant or furniture, the income from such letting (if it is not chargeable to income-tax under the head “Profits and gains of business or profession”)

Section 56

- income referred to in sub-clause (*xi*) of clause (*24*) of section 2 (**sum received under a Keyman Insurance Policy including bonus**) if such income is not chargeable to income-tax under the head "Profits and gains of business or profession" or under the head "Salaries"

Section 56 - Gifts

- where an **individual or a Hindu undivided family** receives from any person or persons on or after 1st October, 2009,—

  (*a*) any **sum of money**, **without consideration**, the aggregate value of which **exceeds fifty thousand rupees**, the whole of the aggregate value of such sum;

  (*b*) **any immovable property**, **without consideration**, the **stamp duty value of which exceeds fifty thousand rupees**, the stamp duty value of such property;

  (*c*) any property, other than immovable property,—

  (*i*) without consideration, the aggregate fair market value of which exceeds fifty thousand rupees, the whole of the aggregate fair market value of such property;

  (*ii*) for a consideration which is less than the aggregate fair market value of the property by an amount exceeding fifty thousand rupees, the aggregate fair market value of such property as exceeds such consideration:

  Provided that where the stamp duty value of immovable property as referred to in sub-clause (*b*) is disputed by the assessee on grounds mentioned in sub-section (2) of section 50C, the Assessing Officer may refer the valuation of such property to a Valuation Officer, and the provisions of section 50C and sub-section (15) of section 155 shall, as far as may be, apply in relation to the stamp duty value of such property for the purpose of sub-clause (*b*) as they apply for valuation of capital asset under those sections

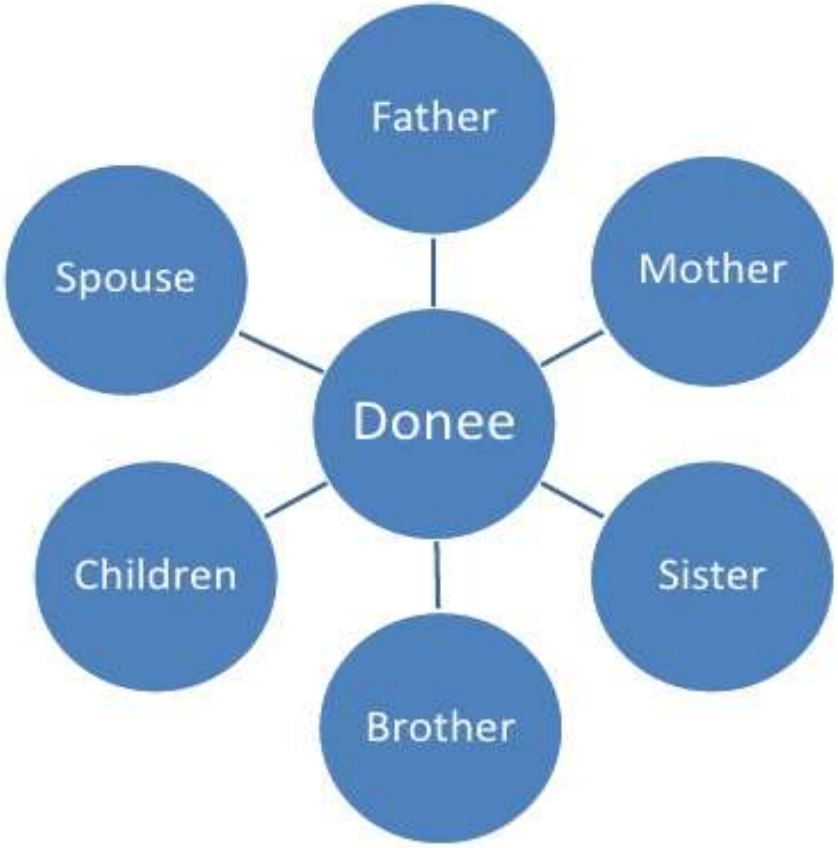
Section 56

- income by way of interest received on compensation or on enhanced compensation referred to in clause (*b*) of section 145A (interest on compensation / enhanced compensation)

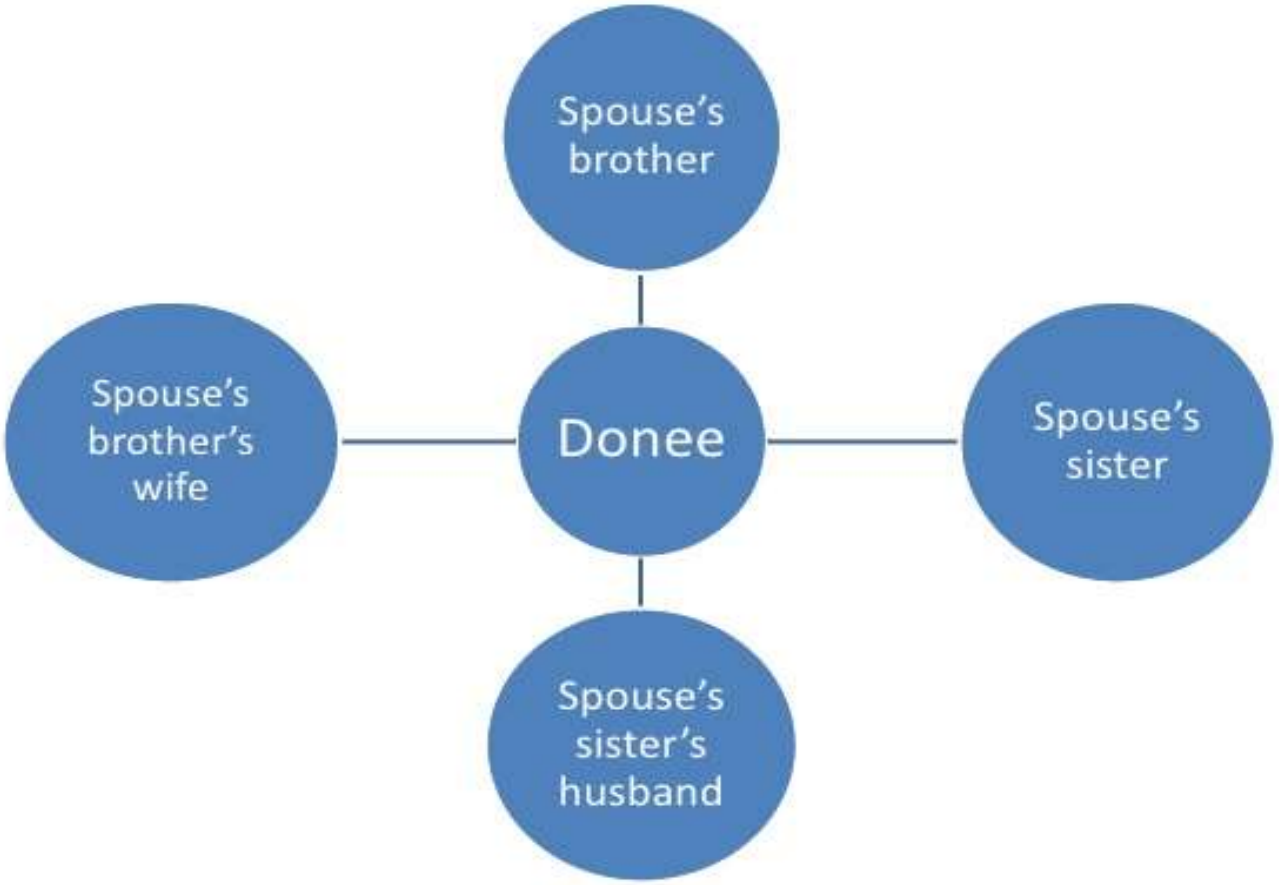
Section 56

- income by way of interest received on compensation or on enhanced compensation referred to in clause (*b*) of section 145A (interest on compensation / enhanced compensation)

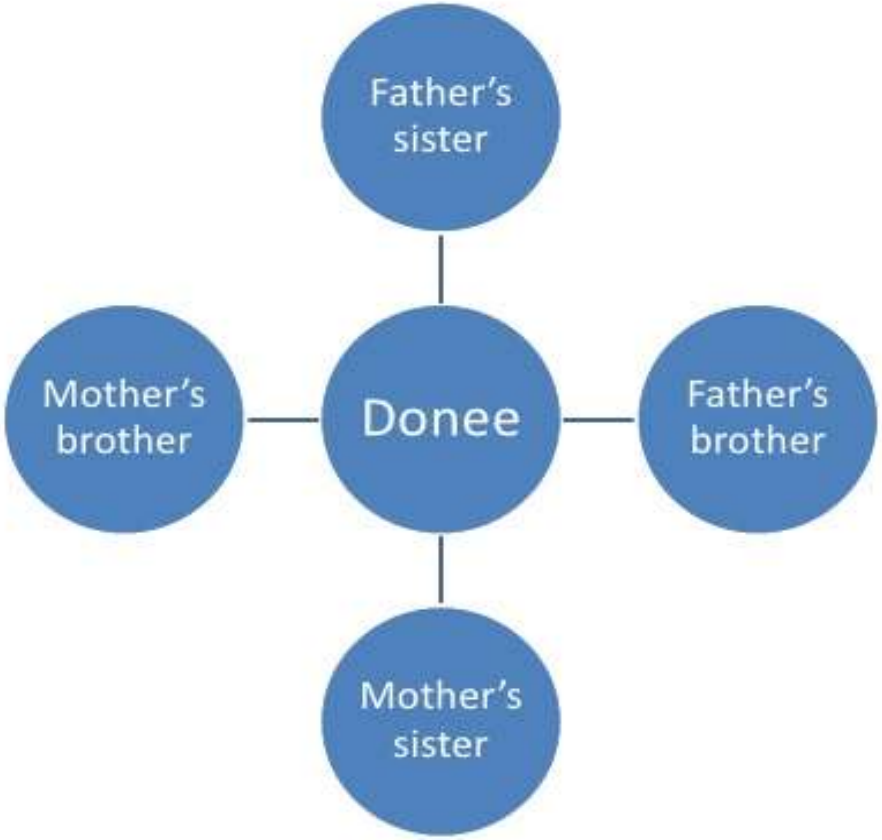
Exempt gifts from relatives – 1st level



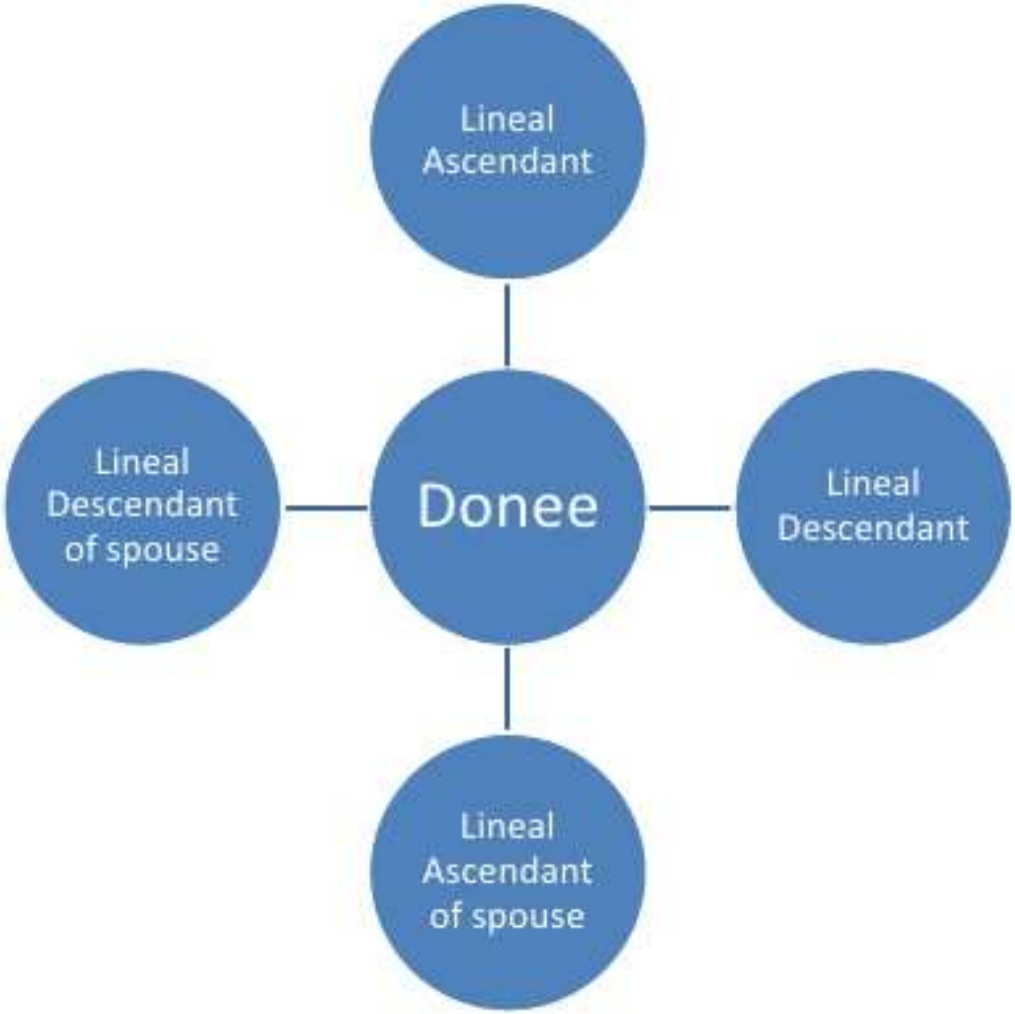
Exempt gifts from relatives – 2nd level



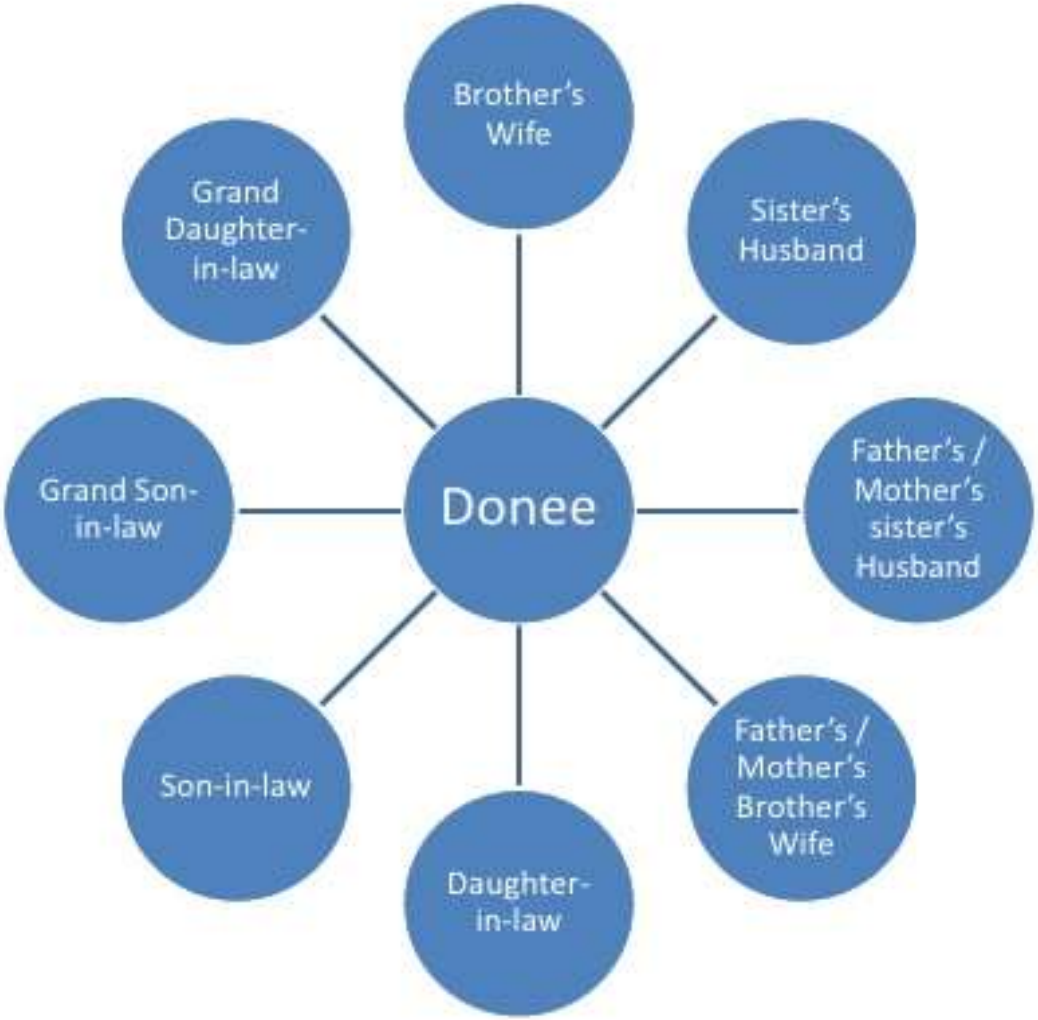
Exempt gifts from relatives – 3rd level



Exempt gifts from relatives – 4th level



Exempt gifts from relatives – 5th level



SECTION 80C – QUALIFIED SAVINGS

DEDUCTION IN RESPECT OF LIFE INSURANCE PREMIA, ETC. (SEC. 80C)

Life Insurance

The following payments/investments qualify for deduction under this section. The total amount of investments made during the P.Y. under these below mentioned schemes is known as Gross Qualifying Amount (GQA)

1.Life Insurance premium paid on a policy taken on his own life, life of the spouse or any child (child may be dependent/ independent). In the case of a Hindu undivided family, policy may be taken on the life of any member of the family. The premium paid should be maximum of 20% of sum assured .

2. Any sum deducted from salary payable to a Government employee for the purpose of securing him a deferred annuity (subject to a maximum of 20% of salary)

3. Contribution towards statutory provident fund and recognized provident fund.

4. Contribution towards 15 year public provident fund (maximum of Rs 70,000).

5. Contribution towards an approved superannuation fund

6. Subscription to National Savings Certificates, VIII Issue .

7. Contribution for participating in the Unit-Linked Insurance Plan (ULIP) of Unit Trust of India..

SOLUTION

Amounts qualifying for deduction are:-

Amount (in Rs)	
Mr. X	6,000
Mrs. X	4,000
Daughter	2,000
Total	12,000

Additional deduction for mother 2,000 and father 1,500

Hence total deduction under section 80 D is Rs (12,000 + 2,000+1,500) = Rs 15,500

Amount of deduction

We add the amounts invested / spent in above mentioned schemes and this amount

is known as Gross qualifying amount. The amount deductible is a) Gross qualifying amount; or

b) Rs 1,00,000

Whichever is less

Note:-The maximum deduction under sections 80C, 80CCC and 80CCDis Rs 1,00,000.

HOUSE RENT ALLOWANCE

HRA is an important component of salary and understanding it properly is paramount for saving tax for salaried individuals.

Tax2win

What is HRA?

House Rent Allowance (HRA) is an allowance given by employer to employee to meet the expenses of rented house.

The amount received is partly exempted from tax.

In case the employee lives in his/her own house and does not pay any rent, the entire amount would be taxable.

Tax2win

Major Concerns:

- "Can I claim HRA, if I already own a house?"
- "Will I get benefits of home loan deduction, if I am receiving HRA?"

Let us clarify these concerns.

- If you're living in your parent's house, you can claim HRA exemption by paying rent to your parents. In this case, your parents need to show that rental income received from you in their income tax return as their income.
- You can claim both deduction for interest of your house loan and exemption for HRA if you're living in a rented house and not in your own house.

Tax2win

CONDITIONS FOR CLAIMING HRA

1. You should be a salaried employee.
2. You should receive HRA as a part of your salary package/CTC.
3. You should live in a rented accommodation
4. Information to the employer by way of submission of rent receipts.
5. Still,Exemption can be claimed if you forgot to inform employer at the time of filing Return.

Tax2win

HOW HRA IS CALCULATED FOR TAX SAVING

The **least** of the following is exempt from tax:

- House Rent Allowance received from employer.
- Excess rent paid over 10% of salary.
- An amount equal to 40% of salary (50% of salary in case of Mumbai, Kolkata, Delhi or Chennai).

Salary shall mean the Basic Salary + Dearness Allowance + Commission/Incentive based on a fixed percentage of turnover

Tax2win

1. Income from House Property

Income from House Property is possible in these cases –

Rental Income on a let out property

Annual Value of a property which is 'deemed' to be let out for income tax purposes (when you own more than two house property)

Annual Value of the property which is self occupied, which is*Nil*

Annual Value of the property which is self occupied, which is*less* Municipal Taxes Paid. If the property is let out, its rent received is your Gross Annual Value. For a deemed to be let out property, a reasonable rent of a similar place is your Gross Annual Value. For a self occupied house property the Gross Annual Value is *Nil*.

a. Standard Deduction – Standard Deduction is 30% of the Net Annual Value calculated above. This 30% deduction is allowed even when your actual expenditure on the property is higher or lower.

Therefore, this deduction is irrespective of the actual expenditure you may have incurred on insurance, repairs, electricity, water supply etc.

For a self occupied house property, since the Annual Value is *Nil*, the standard deduction is also zero on such a property.

b.Deduction of Interest on Home Loan for the property –Homeowners can claim a deduction of up to Rs.2 lakh (Rs 1.5 lakh if you are filing returns for FY 2013-14) on their home loan interest, if the owner or his family reside in the house property. The same treatment applies when the house is vacant. If you have rented out the property, the entire interest on the home loan is allowed as a deduction.

Your deduction on interest is limited to Rs.30,000 if you fail to meet any of the conditions given below for the Rs.2 lakh rebate.-

i. The home loan must be for purchase and construction of a property;

ii. The loan must be taken on or after 1 April 1999;

iii. The purchase or construction must be completed within 5 years from the end of the financial year in which the loan was taken

3. Pre Construction Interest

When you have taken a loan for purchase or construction of a house property, you can claim a deduction on pre-construction interest. However, this is not allowed in case of the loan for repairs or reconstruction. The total amount of pre construction interest and interest on housing loan that can be claimed in a year should not exceed Rs 2 lakh in any case.

The deduction for this interest is allowed in 5 equal instalments starting from the year in which the house is purchased or the construction is completed. Example, if the construction of your property completed in FY 2018-19, on 25 June 2018, you can claim 1/5th of interest paid up till 31 March 2018 when you file your return for FY 2018-19.

You need to meet all the below 3 conditions to claim this deduction

a. Loan has been taken after 1st April 1999 for purchase or construction

b. The acquisition or construction is completed within 5 years (3 Years till FY 2015-16) from the end of the financial year in which the loan was taken

c. There is interest certificate available for the interest payable on the loan

Note that your interest deduction may be limited to Rs 30,000 if any one of these conditions is met –

a. Loan is borrowed before 1st April 1999 for purchase, construction, repairs or reconstruction of house property

b. Loan is borrowed on or after 1st April 1999 for purchase, construction, repairs or reconstruction of house property.

5. Computation of Income Under House Property

Say, a person repays housing loan of Rs 4 lakh annually out of which Rs 2 lakh is the interest component. He has also incurred a pre-construction interest of Rs 3 lakh. He is earning Rs 7000 monthly from a let out property and also pays municipal taxes of Rs 3000 for the house. Let's calculate his Income from house property in both the scenarios:

1. He has a self-occupied property, or

2. The property is rented out

Type of House PropertySelf OccupiedLet OutGross annual Value (Rent paid-7000*12)NIL84,000Less: Municipal Taxes or Taxes paid to local authoritiesNA3,000Net Annual Value(NAV)Nil81,000Less: Standard Deduction(30% of NAV)NA24,300Less: Interest on Housing Loan200,000200,000Less: Pre-construction interest (1/5th of 3 Lakhs)60,00060,000Income from House Property(260,000)(203,300)Overall loss restricted to(200,000)(200,000)

Remember, maximum loss set off allowed in a financial year is limited to Rs 2 lakh. Remaining loss can be carried forward to future years – 8 years in total. However, in these 8 years, it can only be set off from income from house property.

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List of Courses relevant to Local, Regional, National and Global needs

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1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) of the Programme offered by the Institution.

Regional Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
1	1	B.A., Economics	1309	Indian Economic Development
2	3	BBA	03414B	Industrial Relations
3	3	BBA	03517B	Organisational Psychology
4	3	BBA	03521	Materials Management
5	3	BBA	03312	Production Management
6	4	BBM	4313	Computer application in Business
7	7	B.C.A	7626	Mobile Application Developmentz
8	10	B.Sc., Chemistry	10307	Allied Chemistry I
9	10	B.Sc., Chemistry	10515	Inorganic Chemistry I
10	14	B.Sc., Viscom	14312	Media Culture and Society
11	14	B.Sc., Viscom	14626	Broadcast Journalism
12	14	B.Sc., Viscom	14629	News Production
13	14	B.Sc., Viscom	14207	Psychology of Media
14	14	B.Sc., Viscom	14520	Audio Video Editing
15	14	B.Sc., Viscom	14521	Media Organization
16	15	B.Sc., Computer Science	15516,	Database Management System
17	15	B.Sc., Computer Science	15518	ASP.NET Programming
18	15	B.Sc., Computer Science	15310	Web Design
19	20	B.Com	20207	Corporate Laws
20	20	B.Com	20208	Corporate Governance, Ethics and responsibility of Business
21	24	M.Sc., Biochemistry	24210(B)	Organisational Behaviour
22	24	M.Sc., Biochemistry	24104	Enzymes
23	30	MBA	30429	Strategic Human Resource Management and Development
24	30	MBA	30321	Labour legislations
25	30	MBA	30430	Leadership and organizational effectiveness
26	33	MSW	33417	Strategic Human Resource Management
27	33	MSW	33311	Labour Legislations and
28	33	MSW	33419	Organizational Behaviour and Organizational Development
29	33	MSW	33314	Employee Relations Management
30	33	MSW	33418	Trends in Human Resource Development

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Regional Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
31	38	B.A., Tamil	38519	Elective – 1 – Journalism & Translation
32	38	B.A., Tamil	38519	Elective – 1 – Journalism & Translation
33	38	B.A., Tamil	38208	Journalism : An Introduction (NME - II)
34	38	B.A., Tamil	38519	Elective – 1 – Journalism & Translation
35	38	B.A., Tamil	38102	Paper – 2 – Grammer – I - Nannool – Ezhuththadhigaram
36	38	B.A., Tamil	38103	Allied – 1 - History and Culture of Tamil Nadu– I
37	38	B.A., Tamil	38104	Payanpattu Tamil (NME -1)
38	38	B.A., Tamil	38206	Paper – 4 – Grammer – II- Nannool – Cholladhigaram
39	38	B.A., Tamil	38207	Allied – 2 - History and Culture of Tamil Nadu– II
40	38	B.A., Tamil	38310	Paper – 6 – Grammer – III – Nambiyagapporul
41	38	B.A., Tamil	38311	Allied – 3 – History of Tamil Literature – I
42	38	B.A., Tamil	38413	Paper – 8 – Grammer – IV – Purapporul venpamalai
43	38	B.A., Tamil	38414	Allied – 4 – History of Tamil Literature – II
44	38	B.A., Tamil	38515	Paper – 9 – Sangam Literature - Agam
45	38	B.A., Tamil	38516	Paper – 10 – Grammer – V – Yaapparungalak kaarigai
46	38	B.A., Tamil	38517	Paper – 11 – History of Tamil Language
47	38	B.A., Tamil	38518	Paper – 12 – Tamil Literary Review
48	38	B.A., Tamil	38620	Paper 13- Sangam Literature- Puram
49	38	B.A., Tamil	38621	Paper 14-Grammar VI- Thandialangaram
50	38	B.A., Tamil	38622	Paper 15-Dravidian Languages and Analogy
51	38	B.A., Tamil	38623	Elective 2- Folkloristics
52	39	B.A., English	39208	N.M.E II – Communication : Broadcasting & Telecasting
53	39	B.A., English	39519	Elective I– Journalism and Mass Communication
54	42	B.A., Criminology	42517	Corporate Security Management
55	45	B.Com Accounting & Finance	45623	Corporate Finance
56	47	B.Sc., Psychology	47413	Marketing and Consumer Behaviour
57	47	B.Sc., Psychology	47321	Organizational Psychology
58	62	B.Com Finance & Taxation	62310	Audit & Assurance

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Regional Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
59	62	B.Com Finance & Taxation	62414	Financial Reporting
60	62	B.Com Finance & Taxation	62417	International Taxation & Technology
61	63	B.Com., Marketing Management	63302	Internet and Digital Marketing
62	63	B.Com., Marketing Management	63103	Business Communication
63	63	B.Com., Marketing Management	63103	Corporate Accounting

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	Course Code: CORE IX	Course: Financial Reporting

emester: 4

EARNING OUTCOME: On learning the course, the students will be able to understand about the reparation of the financial statements of banking &Insurance companies.

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Compile financial information and financial statements relating to banking and insurance standards
CO2	Illustrate the provisions of consolidation of group financial statements and relevant accounting standards
CO3	Relate the international standards with respect to income taxes, cash flows and government grants
CO4	Compare the exchange rates, investment in associates and joint ventures
CO5	Report the financial position of holding companies and preparation of consolidated balance sheet

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1				3		2	2
CO2				3		2	1
CO3	2	1		2		3	2
CO4	2	2		2		2	3
CO5				3		2	

Mapping of CO v/s PSO:

	PSO1	PSO2	PSO3	PSO4
CO1		2		3
CO2		1		
CO3				2
CO4		3		
CO5				1

Semester	IV
Subject	CORE IX – FINANCIAL REPORTING
Maximum Marks	CIA- 40 Marks ESE-100 Marks
Credits/ Instruction Hours	4 Credits / 5 Hours per week
Exam Duration	3 Hours
L:T:P:S	4:0:0:1

UNIT	CONTENTS OF THE MODULE	CO
1	Corporate Financial Reporting - Concept – objectives – Financial reporting and Financial Statements – objectives of Financial statements. Users in Financial reporting. Qualitative characteristics of financial reporting information-Benefits of Financial reporting	1
2	International Standards related to Incomes Taxes, cash flows, Government Grants, effects of changes in foreign exchange rates, investments in associates & joint ventures, leases.	2
3	Accounting for Insurance Companies – Life Assurance Fund – Valuation Balance Sheet & Treatment of Surplus - Revenue Account for Life & General insurance Companies – Balance Sheet (Simple Problems Only).	3
4	Integrated reporting - Accounting for Holding Companies - Consolidated financial statements (excluding group cash flow statement) for a simple group with one subsidiary and one associate – computation of fair value of net assets, goodwill and Non-Controlling Interest (NCI) on date of acquisition -computation of group reserves on date of consolidation – fair value adjustments on consolidation – effects of intra-group trading on consolidation — consolidation of Balance Sheet – treatment of mutual Owings, contingent liabilities – unrealized profit – revaluation of assets – bonus issue and payment of dividend (intercompany holdings excluded) as per AS 21.	4
5	Accounting for Banking Companies in India – Non Performing Assets – prudential norms – Rebate on Bills discounted – profit and Loss account and Balance Sheet – (Revised Format).	5

tern for End Semester Examination

End Semester Questions Pattern	Theory	Practical Problems	Total Questions	To Answer Questions	Marks Per Question	Total Marks
Section – A	6	4	10	10	2	20
Section – B	4	6	10	5	7	35
Section – C	2	3	5	3	15	45
			Total Marks			**100**

qual weightage to be given to all the 5 units

ightage based on Bloom's Taxonomy (for End Semester Examinations–ESE)

Remember	Understand	Apply	Analyze	Evaluate	Create
20 %	30%	25%	15%	10%	-

ct Books:

1. R.L.Gupta and M.Radhaswamy, Advanced Acounting, Sultan Chand & Sons, New Delhi
2. S.N.Maheswari Advanced Accounting, Sultan Chand & Sons, New Delhi
3. Jain & Narang, Advanced Accountancy, Kalyani Publishers
4. T.S.Reddy and Dr.A.Murthy, Corporate Accounting, Margham Publications.

ference Books:

1. Bruce Mackenzie & Others, IFRS 2012: Interpretation and Application of International Financial Reporting Standards, Wiley
2. Loftus, Financial Reporting, Wiley
3. ACCA Study Material, Kaplan Publications

ote: **Latest edition of the books to be referred.**

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Department: Finance & Taxation		Academic Semester: 4	
Semester: 4	Section:A	Course Code: 62414	Course: Financial Reporting
Contact Hours /week: 5	No. of credits:4	Course Instructor:	Dr. R. Premalatha
CIA:25	ESE :75	Exam Hours:	03

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Compile financial information and financial statements relating to banking and insurance standards
CO2	Illustrate the provisions of consolidation of group financial statements and relevant accounting standards
CO3	Relate the international standards with respect to income taxes, cash flows and government grants
CO4	Compare the exchange rates, investment in associates and joint ventures
CO5	Report the financial position of holding companies and preparation of consolidated balance sheet

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1				3		2	2
CO2				3		2	1
CO3	2	1		2		3	2
CO4	2	2		2		2	3
CO5				3		2	

Mapping of CO v/s PSO:

	PSO1	PSO2	PSO3	PSO4
CO1		2		3
CO2		1		
CO3				2
CO4		3		
CO5				1

Correlation levels: 1- Weak 2-Medium 3-High

Assessment Methodologies:

Sl. No.	Description	Type
1.	Student Assignment	Direct
2.	Internal assessment	Direct
3.	University exam	Direct
4.	Student feedback	Indirect
5.	Alumni feedback	Indirect
6.	Employers feedback	Indirect

COURSE DELIVERY PLAN

Lecture	Module	Topics	RBT levels	CO	Planned Date	Actual Date	Faculty Sign	Remarks	HOD Sign
1	1	Introduction to Corporate Financial Reporting	L1	1		5/1/21			
2		Objectives of Financial Reporting	L1			6/1/21			
3		Difference between Financial Reporting and Financial Statements	L2			7/1/21			
4		Objectives of Financial Statements	L2			8/1/21			
5		Users in Financial Reporting	L2			9/1/21			
6		Advantages of Financial Reporting	L2			11/1/21			
7		Scope of Financial Reporting	L2			12/1/21			
8		Presentation of Financial Statement	L2			18/1/21			
9		Limitations of Financial Reporting	L2			19/1/21			
10		Qualitative characteristics of financial reporting information	L3			20/1/21			
11	2	Meaning of Accounting Standards	L1	2		21/1/21			
12		Introduction to International Accounting Standards	L1			22/1/21			
13		International Standards related to cash flows	L2			29/1/21			
14		Government grants related to international accounting standards	L2			1/2/21			
15		Compliance of Accounting Standards	L2			2/2/21			

		Procedure for formulation of Accounting Standards	L3			4/2/21		
16		Functions and responsibility of ASB	L3			5/2/21		
17		International standards related to income taxes	L3			9/2/21		
18		Effects of changes in foreign exchanges	L3			11/2/21		
19		Accounting standards related to investments in associates	L3			15/2/21		
20		Conceptual framework of Insurance	L2	3		16/2/21		
21		Types of Insurance-Life and General	L2			18/2/21		
22	3	Preparation of final accounts of insurance companies	L4			19/2/21		
23		Accounts of Life Insurance business	L4			22/2/21		
24		Practical problems in revenue account	L4			24/2/21		
25		Practical problems in Profit and loss account	L4			25/2/21		
26		Computation of life insurance accounts	L4			1/3/21		
27		Forms of General insurance final accounts	L3			3/3/21		
28		Practical problems in Fire Insurance	L4			8/3/21		
29		Practical problems in Marine Insurance	L4			10/3/21		
30		Meaning and Definition of Holding and Subsidiary Company	L1	4		11/3/21		
31		Legal requirements relating to subsidiary company	L2			12/3/21		
32								

		Practical problems of consolidated balance sheet				15/3/21		
33	4	Computation of fair value of net assests and goodwill	L4			16/3/21		
34		Computation of non-controlling interest on date of acquisition	L3			17/3/21		
35		Computation of group reserve on date of consolidation	L3			18/3/21		
36		Practical problems related to fair value adjustments on consolidation	L4			19/3/21		
37		Practical problems related to effects of intra-group trading on consolidation	L4			20/3/21		
38		Problems with the treatment of mutual owings	L4			22/3/21		
39		Treatment of contingent liabilities	L3			22/3/21		
40		Introduction to Banking companies accounts	L2	5		23/3/21		
41		Guidelines of RBI for P&L and Balance Sheet	L3			23/3/21		
42	5	Items requiring special attention in preparation of Final Accounts	L2			24/3/21		
43		Practical problems in non-performing assets	L3			24/3/21		
44		Classifications of Bank Advances	L2			24/3/21		
45		Preparation of final accounts	L3			25/3/21		
46		Preparation of p&L accounts	L4			25/3/21		
47		Preparation of BalanceSheet	L4			26/3/21		
48								

	Practical problems in profit and loss account	L4			26/3/21		
49	Legal requirements in Banking companies	L3			26/3/21		
50							
	REVISION						
	Discussion on IFRS	L3	1		27/3/21		
51	Accounting Standards	L2	2		27/3/21		
52	Problems in fire and marine insurance	L4	3		29/3/21		
53	Problems in Consolidated balance sheet	L4	4		29/3/21		
54	Problems in bank accounts	L4	5		30/3/21		
55							
	TOPICS BEYOND SYLLABUS						
	Comparison of IFRS and IND AS	L3			1/4/21		
56	Accounting Standards related fund flows	L3			3/4/21		
57	Motor Insurance	L2			5/4/21		
58	Rules regarding dividend declaration	L3			6/4/21		
59	Modern services of Bank	L2			7/4/21		
60							

MOOC

COURSEWARE LINK

OTHER E-RESOURCES

L1 - Remembering; L2 – Understanding; L3 – Applying; L4 – Analysing; L5 – Evaluating; L6 - Creating

TEXT BOOKS:

1. M.Radhaswamy, Advanced Accounting, Sultan Chand & Sons, New Delhi
2. S.N.Maheswari Advanced Accounting, Sultan Chand & Sons, New Delhi

REFERENCE BOOKS:

1. Jain & Narang, Advanced Accountancy, Kalyani Publishers
2. Bruce Mackenzie & Others, IFRS 2012: Interpretation and Application of International FinancialReporting Standards, Wiley
3. Loftus, Financial Reporting, Wiley

Assessment rubrics that is going to be adopted for direct attainment is depicted in below table

Level of Achievement	Elaboration on Course Grading Description	Bench Mark Set (Out of 40)
Excellent (A)	The Student's performance is outstanding in almost all the intended course learning outcomes	28 to 40
Good (B)	The student's performance is good in most of the intended course learning outcomes.	20 to 27
Marginal (C)	The student's performance is barely satisfactory. It marginally meets the intended course learning outcomes	16 to 19
Fail (F)	The Students performance is inadequate. Student fails to meet many of the intended course learning outcomes	Less than 16

NOTE: Have different Assessment pattern for tests, assignments, quizzes etc.

Course Instructor

Dept. IQAC Coordinator

HOD

Dr. M. Akhila

Head
Department of Finance and Taxation
Dwaraka Doss Goverdhan Doss
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Arumbakkam, Chennai-600 106.

PRINCIPAL
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Vaishnav College
Arumbakkam, Chennai - 600106.

Reg. No. : | | | | | | | | |

APRIL 2021 **U/4711/1962414**

FINANCIAL REPORTING

Time : Three hours Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN out of Twelve questions.

1. Define Financial reporting.
2. What is cash flow statement?
3. List out the two categories of financial reports.
4. What is 'Joint venture' under AS -27?
5. What is Government grant?
6. What do you understand by 'Lease'?
7. What do you mean by surrender value?
8. What is meant by Annuity'?
9. The Life fund of Life Insurance Company on 31.3.2006 showed a balance of Rs.54,00,000. However, the following items were not taken into account while preparing the Revenue A/C for 2005-2006:
   (a) Interest and dividends accrued on investments 20,000
   (b) Income tax deducted at source on the above 6,000
   (c) Reinsurance claims recoverable 7,000
   (d) Commission due on reinsurance premium paid 10,000
   (e) Bonus in reduction of premium 3,000
10. Write a note on 'Holding Company'.
11. On 31st March, 1998 a bank held the following bills discounted by it earlier:

Date of bill 1998	Term of bill (months)	Discounted @% p.a.	Amount of bill ₹.
January, 17	4	17	7,30,000
February, 7	3	18	14,60,000
March, 9	3	17.5	3,64,000

You are required to calculate the rebate on bills discounted.

12. Explain the meaning of Non-performing asset.

SECTION B — (5 × 7 = 35 marks)

Answer any FIVE out of Seven questions.

13. List out the objectives of Financial Reporting.

14. What is cash flow statement? Explain the provisions of AS —3 'cash flow statement'.

15. Explain the steps involved in preparation of consolidated Balance sheet.

16. From the following balances of United General Insurance Co. Ltd. As on 31.3.2006 prepare:

    (a) Fire revenue A/C

    (b) Marine revenue A/C

    (c) Profit and Loss A/C

Particulars	₹ '000	Particulars	₹ '000
Provision for unexpired risk on 1.4.05:		Interest, dividends, etc	28
Fire	500	Difference in exchange (cr)	0.6
Marine	1,640	Miscellaneous receipts	10
Additional reserve on 1.4.05:		Profit on sale of land	120
Fire	100	Premium received	
Bad debts:		Fire	1,200
Fire	10	Marine	2,160
Marine	24	Expenses of management	
Auditors fees	2.4	Fire	290
Director's fees	10	Marine	800
Share transfer fees	1.6	Commission earned on reinsurance ceded	
Bad debts recovered	2.4	Fire	60
Claims paid and outstanding		Marine	120

Particulars	₹ '000	Particulars	₹ '000
Fire	380		
Marine	760		
Commission paid:			
Fire	180		
Marine	216		
Depreciation	70		

Provision for unexpired risk is to be kept at 50% of the premium for the fire and at 100% for marine departments. The additional reserve in case of fire insurance is to be increased by 5% of the net premium.

17. The Balance sheets of C Ltd. And D Ltd. As at 31st December, 1986 are as follows:

Liabilities	C Ltd ₹	D Ltd ₹	Assets	C Ltd ₹	D Ltd ₹
Share capital (in shares of Rs.10 each)	2,00,000	1,00,000	Sundry assets	1,32,500	1,38,200
General reserve	18,000	20,000	Goodwill	Nil	20,000
Profit and loss a/c	24,500	23,000	Shares in D Ltd. at cost	1,40,000	Nil
Creditors	30,000	15,200			
	2,72,500	1,58,200		2,72,500	1,58,200

In the case of 'D' Ltd., profit for the year ended 31st December 1986 is ₹. 12,000 and transfer to reserve is ₹. 5000. The holding of C Ltd. In D Ltd. Is 90% acquired on 30th June 1986.

Draft a consolidated Balance sheet of 'C' Ltd. And its subsidiary.

18. From the following information relating to Lakshmi Bank Ltd., prepare the Profit & Loss A/C for the year ended 31st December, 1987.

Particulars	₹.	Particulars	₹.
Rent received	72,000	Salaries and allowances	2,18,000
Exchange and commission	32,800	Postage	5,600
Interest on fixed deposits	11,00,000	Sundry charges	4,000

Particulars	₹.	Particulars	₹.
Interest on savings bank A/C	2,72,000	Director's &Auditors's fees	16,800
Interest on overdrafts	2,16,000	Printing	8,000
Discount on bills discounted	7,80,000	Law charges	3,600
Interest on current accounts	1,68,000	Locker rent	1,400
Interest on cash credits	8,92,000	Transfer fees	2,800
Depreciation on bank property	20,000	Interest on loans	10,36,000

19. Explain the legal provisions relating to the final accounts of a Banking.

SECTION C — (3 × 15 = 45 marks)

Answer any THREE out of Five questions.

20. Describe the Qualitative characteristics of Financial Reporting.

21. Explain accounting for Taxes on Income Tax under AS-22.

22. Prepare Final accounts of a life Insurance in prescribed form as per the IRDA regulators and explain the items there in.

23. A Ltd. Acquired 1,600 ordinary shares of ₹. 100 each in B Ltd. On 31st December 1989. Their summarised Balance sheets as on that date were as under.

Liabilities	A Ltd	B Ltd	Assets	A Ltd	B Ltd
	₹	₹		₹	₹
Capital			Land and Building	1,50,000	1,80,000
5,000 ordinary shares of ₹.100 each	5,00,000	-	Plant and Machinery	2,40,000	1,09,400
2,000 ordinary shares of ₹.100 each	-	2,00,000	Investments in B Ltd. at cost	3,40,000	-
Capital reserve		1,20,000	Stocks	1,20,000	36,000
General reserve	2,40,000	-	Debtors	44,000	40.000

Liabilities	A Ltd ₹	B Ltd ₹	Assets	A Ltd ₹	B Ltd ₹
Profit and Loss a/c	57,200	36,000	Bills receivable (including ₹. 3000 from B Ltd.)	15,800	-
Bank overdraft	80,000	-	Cash at Bank	14,500	8,000
Bills payable (including ₹.4,000 to A Ltd.)	-	8,400			
Creditors	47,100	9,000			
	9,24,300	3,73,400		9,24,300	3,73,400

You are supplied the following information:

(a) 'B' Ltd. Had made a bonus issue on 31st December 1989 of one ordinary share for every two shares held by it's shareholders. Effect has yet to be given in the accounts for the issue.

(b) The directors are advised that Land and Buildings of B Ltd. Are undervalued by ₹. 20,000 and Plant and Machinery of B Ltd. Over valued By ₹. 10,000. These assets have to be adjusted accordingly.

(c) Sundry creditors of A' Ltd. Include ₹. 12,000 due to 'B' Ltd.

You are required to prepare the consolidated Balance sheet as on 31st December 1989.

24. From the following, you are required to prepare the Profit and Loss Account and the Balance Sheet of Madras Bank Ltd., as on 31.12.1980 according to Banking Regulation Act 1949.

Particulars	₹. in Thousands	₹. in Thousands
Issued capital: 20,000 shares of ₹. 100 each		2000
Money at call and short notice	800	
Reserve fund		700
Cash in hand	650	
Deposits		2,500

Particulars	₹. in Thousands	₹. in Thousands
Cash at bank	950	
Borrowings from SBI		500
investments in Government securities	900	
secured loans	1,500	
Cash credits	500	
Premises less depreciation	580	
Furniture less depreciation	120	
Rent	5	60
Interest and discount		800
Commission and brokerage		70
Interest paid on deposits	300	
Salary and allowances paid to staff	150	
Interest paid on borrowings	50	
Audit fees	10	
Directors fees	8	
Non-banking assets	80	
Depreciation on banks property	13	
Printing	3	
Advertisement	I	
stationery	5	
Postage and telegrams	2	
Other expenses	3	
	6,630	6,630

Adjustments:

(a) Provide ₹. 20,000 for doubtful debts

(b) Provide ₹. 10,000 on bills discounted but not matured on 3 1.12.1980

(c) Acceptances and endorsements on behalf of customers amounting to ₹. 4,00,000

(d) Provide ₹. 60,000 for taxes


Financial Reporting
www.educba.com

TYPES OF REPORTING

- The accounting & financial aspects of each and every department are recorded and are reported to various stakeholders. There are two different types of reporting –
- **1.Financial reporting** for **various stakeholders** & **Management**
- **2. Reporting** for **internal Management** of an organization.

Introduction of Corporate Financial Reporting

Corporate financial reporting is not only to show the financial statements of corporate but it includes to highlight important financial data and to show the application of financial policy. A good financial reporting will show true financial position of company. Company can save from hidden losses, if its accountant highlights critical points in it. In this way, it is helpful tool to investors for better decision making.

Definition of Corporate Financial Reporting

Corporate financial reporting is the system of making corporate financial reports. These corporate financial reports are income statement, balance sheet, cash flow statement, statement of retained earning and financial policies explanation. Corporate financial reporting may be shown at the end of month or at the end of each quarter or at the end of year.

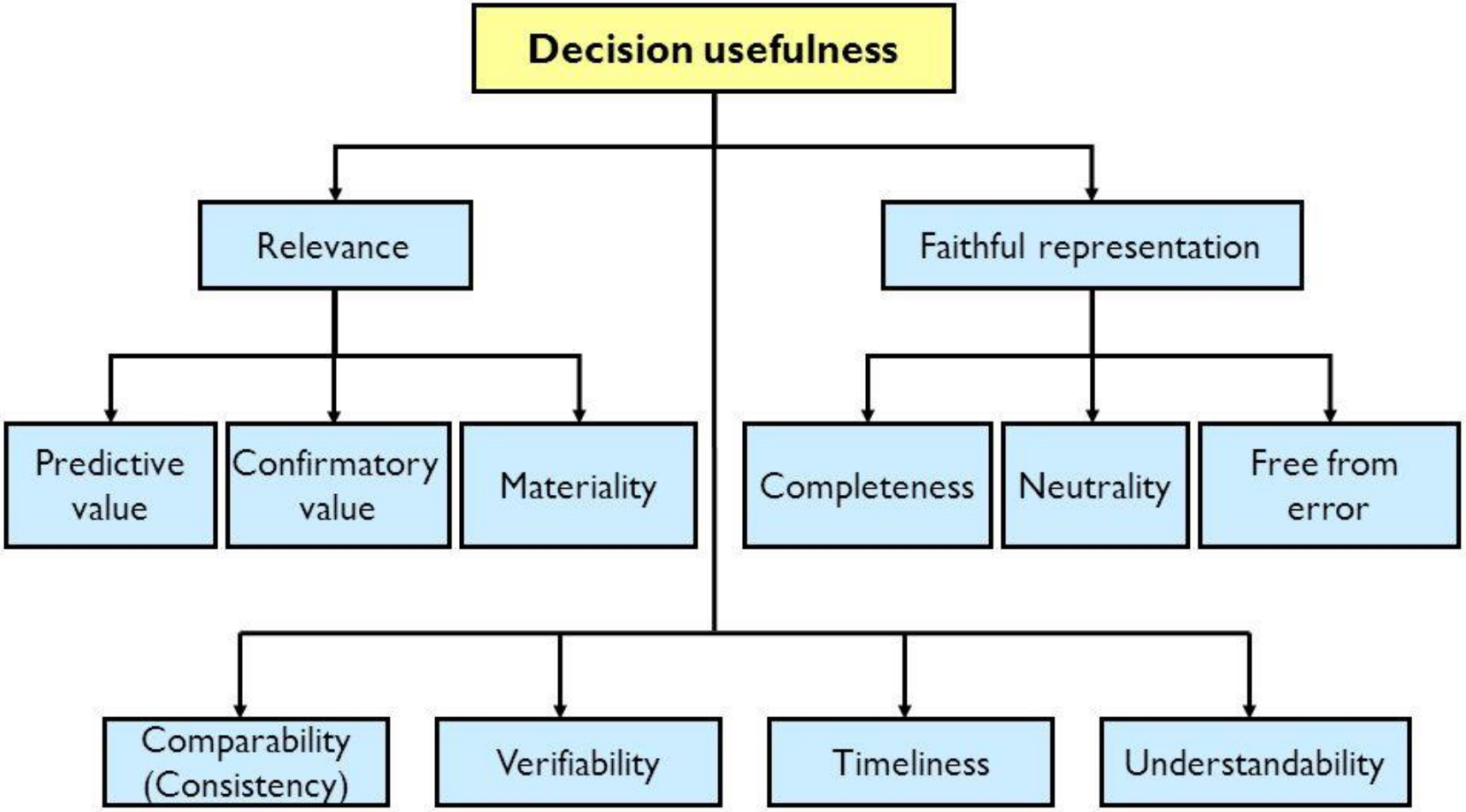
Financial Statements

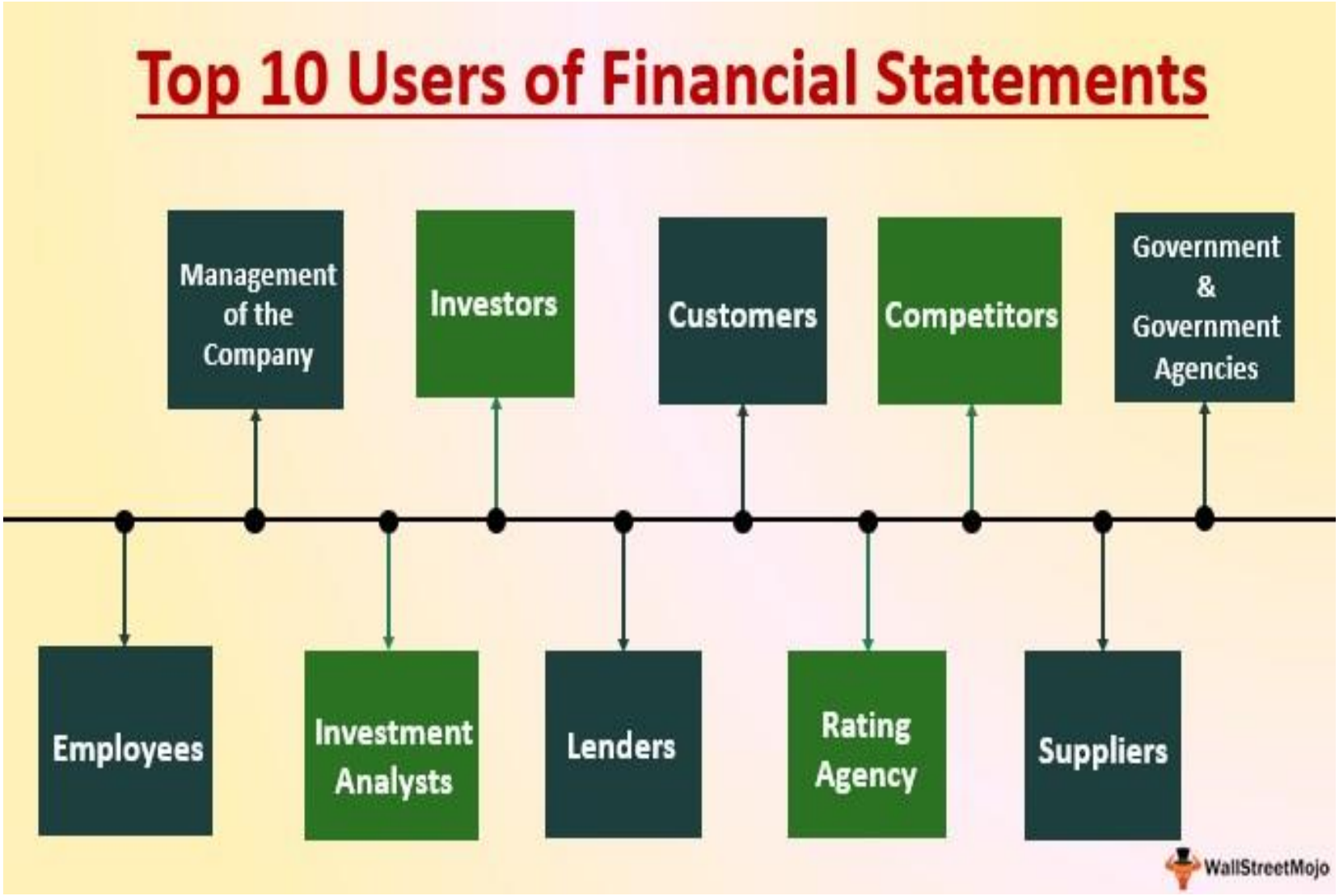
1. Balance Sheet
2. Income Statement
3. Cash Flow Statement
4. Statement of Owner's Equity

IMPORTANCE/OBJECTIVES OF FINANCIAL REPORTING

- to comply with various statues and regulatory requirements
- facilitates statutory audit
- forms the backbone for financial planning
- to raise capital
- to analyse the performance
- providing information to internal and external users

Qualitative Characteristics of Accounting Information




Top 10 Users of Financial Statements
Management of the Company
Investors
Customers
Competitors
Government & Government Agencies
Employees
Investment Analysts
Lenders
Rating Agency
Suppliers
WallStreetMojo

Course Title: CORE THEORY XI - DOT NET PROGRAMMING

Course Code	: 1807519	Credits	: 04
L:T:P:S	: 4:1:0:0	CIA Marks	: 40
Exam Hours	: 03	ESE Marks	: 60

Course Objectives:

- *Set up a programming concept using the basic knowledge of HTML.*
- *To learn the data types, different controls inVB.NET*
- *Creating ASP.Net applications using standard .net controls to develop a data driven web application for connecting to data sources and managing them.*
- *To maintain session and controls related information for user used in multi-user web applications.*
- *To Understand the fundamentals of developing modular application by using object oriented methodologies*
- *Course outcome s: At the end of course, the student will be able*

Course Outcomes: At the end of the Course, the Student will be able to:

CO1	To understand the basic concept of HTML language with different types tags like formatting the text, inserting the tables.
CO2	To gain the basic knowledge in VB NET with the Frame work
CO3	Enable to apply technical knowledge and perform specific technical skills
CO4	Understand to design web applications using ASP.NET 2. Successful students will be able to use ASP.NET controls in web applications
CO5	Apply the concept to create database driven ASP.NET web applications and web services

Mapping of Course Outcomes to Program Specific Outcomes:

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	3	3	2
CO2	2	2	2	1	-	2
CO3	3	3	2	2	1	1
CO4	3	2	3	3	2	1
CO5	3	3	3	3	2	2

3: Strong 2: Medium 1: Low -: No Correlation

Head
Department of Computer Application
Dwaraka Doss Goverdhan Doss
Vaishnav College (Shift II)
Arumbakkam, Chennai-600 106.

Sl. No.	Contents of Module	Hrs	COs
1	**HTML**: Introduction– HTML Document Structure- Header Styles – Text Formatting –Types of List –HTML Table - Linking documents using Anchor tag - Forms – Basic controls in form – Image tag.	9	CO1
2	**VB.Net Basics**: Dot Net Framework Basics - Visual Studio Environment — Data Types , Variables, constants ,Operators and Expressions – Decisions and Conditions - Loops - Arrays - Sub Procedures and Functions – Built-In functions.	9	CO2
3	**VB.Net Advanced**: Windows Forms and Basic Controls - Timer control - Graphics and Animation: The Graphics Environment – Simple Animation – Scroll Bar Controls - Menus and Status Bars- Multi Form applications - Exception Handling.	9	CO3
4	**ASP.NET Basics**: ASP.NET Language Structure - Page Structure - Page event, Properties & Compiler Directives. **Basic Web Server Controls**: Textbox, Label, Button, Checkbox, Radio Button and Link Button. **Validation Controls**: Required Validator, Compare Validator and RegularExpressionValidator. **DataListWebserver Controls**: List Box, Checkbox List, RadioButtonList, Dropdown List and Data Grid control.	9	CO4
5	**ASP.NET Advanced:** Request and Response Objects, Cookies, Session Management. **Working with Data**: OLEDB Connection class, Command class, Dataset Class and Data Adapter class - Program using database connectivity	9	CO5

TEXT BOOKS:

1. **Thomas A Powell**, "*The Complete Reference HTML*", Fifth Edition, 2017, TMH.
2. **Julia Case Brandley, Anita C. Millspaugh**,"*Programming in Visual Basic.Net*", 2003, Tata McGrawHill.
3. **G. Buczek**, "*ASP.NET Developers Guide*", 2017, Tata McGrawHill.

REFERENCE BOOKS:

1. **C. Xavier**, "*World Wide Web Design with HTML*", First Edition,TMH.
2. **Crouch**, "*ASP.NET and VB.NET Web Programming*", 2002, Addison-Wesley Professional.

E-REFERENCES:

1. http://www.w3schools.com/aspnet/default-asp
2. http://www.learnvisualstudio.net

Head
Department of Computer Application
Dwaraka Doss Goverdhan Doss
Vaishnav College (Autonomous)
Arumbakkam, Chennai-600 106.

Department: Department of Computer Applications (B.C.A.) – Shift - II		Academic Semester: V	
Semester: V	Section: A	Course Code: 1907519	Course: Dot Net Programming
Course Instructor: Mr. N. Jagadeesan		Contact Hours /week: 5	No. of credits: 04
CIA: 040		ESE: 100	Exam Hours: 03

Prerequisites if any:

Code No	Course Name	Description	Semester
	Dot Net Programming	Students can understand the framework of Dot Net and its programming languages	V

Content delivery: Chalk and Chat, Power Point appearance, question and Coursework

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	To understand the basic concept of HTML language with different types tags like formatting the text, inserting the tables.
CO2	To gain the basic knowledge in VB NET with the Frame work
CO3	Enable to apply technical knowledge and perform specific technical skills
CO4	Understand to design web applications using ASP.NET 2. Successful students will be able to use ASP.NET controls in web applications
CO5	Apply the concept to create database driven ASP.NET web applications and web services

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	2	3	3	3	3	3	3
CO2	2	2	2	1	3	2	3	3	2	3	3	2
CO3	3	3	2	2	1	1	2	3	2	3	2	3
CO4	3	2	3	3	2	1	2	3	3	3	3	3
CO5	3	3	3	3	2	2	3	3	3	3	3	3

Correlation levels: 1- Weak 2-Medium 3-High

Mapping of CO's/s PSO

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	3	3	2
CO2	2	2	2	1	3	2
CO3	1	3	2	2	1	3
CO4	3	2	3	1	2	3
CO5	3	3	3	3	2	2

Correlation levels: 1- Weak 2-Medium 3-High

Gap in the syllabus	Syllabus should cover one particular domain completely for better understanding.
Topics to be covered beyond syllabus	Crystal reports can be covered in detail.

Assessment Methodologies:

Sl. No.	Description	Type
1.	Student Assignment	Direct
2.	Internal assessment	Direct
3.	University exam	Direct
4.	Student feedback	Indirect
5.	Alumni feedback	Indirect
6.	Employers feedback	Indirect

COURSE DELIVERY PLAN

Lecture #	Module #	Topics	CO	Planned Date	Hours	Actual Date	Faculty Sign	Remarks	HOD Sign
1		**HTML**: Introduction			1				
2		HTML Document Structure			1				
3		Header Styles – Text Formatting			1				
4		Types of List			2				
5		HTML Table			2				
6	1	Linking documents using Anchor tag			1				
7		Forms – Basic controls in form			2				
8		Image tag			1				
9		Revision for Unit I			1				
10		**VB.Net Basics**: Dot Net Framework Basics - Visual Studio Environment			3				
11		Data Type, Variables, constants, Operators and Expressions			2				
12		Decisions and Conditions			2				
13	2	Loops - Arrays			2				
14		Sub Procedures and Functions – Built-In functions.			1				
15		Revision for Unit II			2				
16		**VB.Net Advanced**: Windows Forms and Basic Controls			1				
17		Timer control			2				
18	3	Graphics and Animation: The Graphics Environment – Simple Animation			1				
19		**Scroll Bar Controls**			2				
20		Menus and Status Bars- Multi Form applications			1				
21		Exception Handling			2				
22		Revision for Unit III			1				

		ASP.NET Basics: ASP.NET Language Structure					
23		Page Structure - Page event, Properties & Compiler Directives		2			
24		Basic Web Server Controls: **Textbox, Label, Button**		2			
25		Checkbox, Radio Button and Link Button		2			
26	4	Validation Controls: **Required Validator, Compare Validator**		2			
27		Regular Expression Validator		2			
28		**Data List Webserver Controls**: List Box, Checkbox List		3			
29		Radio Button List, Dropdown List and Data Grid control		2			
30		Revision for Unit IV		1			
31		**ASP.NET Advanced:** Request and Response Objects		1			
32		Cookies, Session Management		1			
33		**Working with Data**: OLEDB Connection class, Command class		2			
34	5	Dataset Class and Data Adapter class		2			
35		Program using database connectivity		2			
36		Revision for Unit V		1			
37							
		Beyond the Syllabus					
38		Crystal Report					

TEXT BOOKS:

1. **Thomas A Powell**, "*The Complete Reference HTML*", Fifth Edition, 2017, TMH.
2. **Julia Case Brandley, Anita C. Millspaugh**," *Programming in Visual Basic.Net*", 2003, Tata McGrawHill.
3. **G. Buczek**, "*ASP.NET Developers Guide*", 2017, Tata McGrawHill.

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Assessment rubrics that is going to be adopted for direct attainment is depicted in below table

Level of Achievement	Elaboration on Course Grading Description	Bench Mark Set (Out of 40)
Excellent (A)	The Student's performance is outstanding in almost all the intended course learning outcomes	28 to 40
Good (B)	The student's performance is good in most of the intended course learning outcomes.	20 to 27
Marginal (C)	The student's performance is barely satisfactory. It marginally meets the intended course learning outcomes	16 to 19
Fail (F)	The Students performance is inadequate. Student fails to meet many of the intended course learning outcomes	Less than 16

NOTE: Have different Assessment pattern for tests, assignments, quizzes etc.

Course Instructor

Dept. IQAC Coordinator

HOD

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Department of B.C.A

Course Title: CORE THEORY XI - DOT NET PROGRAMMING

Course Code	**: 18-19/07519**	**Credits**	**: 04**
L:T:P:S	**: 4:1:0:0**	**CIA Marks**	**: 40**
Exam Hours	**: 03**	**ESE Marks**	**: 60**

Course Objectives:

- *Set up a programming concept using the basic knowledge of HTML.*
- *To learn the data types, different controls inVB.NET*
- *Creating ASP.Net applications using standard .net controls to develop a data driven web application for connecting to data sources and managing them.*
- *To maintain session and controls related information for user used in multi-user web applications.*
- *To Understand the fundamentals of developing modular application by using object oriented methodologies*
- *Course outcome s: At the end of course, the student will be able*

Course Outcomes: At the end of the Course, the Student will be able to:

CO1	To understand the basic concept of HTML language with different types tags like formatting the text, inserting the tables.
CO2	To gain the basic knowledge in VB NET with the Frame work
CO3	Enable to apply technical knowledge and perform specific technical skills
CO4	Understand to design web applications using ASP.NET 2. Successful students will be able to use ASP.NET controls in web applications
CO5	Apply the concept to create database driven ASP.NET web applications and web services

Mapping of Course Outcomes to Program Specific Outcomes:

	PSO1	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1	3	3	3	3	3	2
CO2	2	2	2	1	-	2
CO3	3	3	2	2	1	1
CO4	3	2	3	3	2	1
CO5	3	3	3	3	2	2

3: Strong 2: Medium 1: Low -: No Correlation

Sl.	**Contents of Module**	**Hrs**	**COs**

Department of B.C.A

No.			
1	**HTML**: Introduction– HTML Document Structure- Header Styles – Text Formatting –Types of List –HTML Table - Linking documents using Anchor tag - Forms – Basic controls in form – Image tag.	**9**	**CO1**
2	**VB.Net Basics**: Dot Net Framework Basics - Visual Studio Environment —– Data Types , Variables, constants ,Operators and Expressions – Decisions and Conditions - Loops - Arrays - Sub Procedures and Functions – Built-In functions.	**9**	**CO2**
3	**VB.Net Advanced**: Windows Forms and Basic Controls - Timer control - Graphics and Animation: The Graphics Environment – Simple Animation – Scroll Bar Controls - Menus and Status Bars- Multi Form applications - Exception Handling.	**9**	**CO3**
4	**ASP.NET Basics**: ASP.NET Language Structure - Page Structure - Page event, Properties & Compiler Directives. **Basic Web Server Controls**: Textbox, Label, Button, Checkbox, Radio Button and Link Button. **Validation Controls**: Required Validator, Compare Validator and RegularExpressionValidator. **DataListWebserver Controls**: List Box, Checkbox List, RadioButtonList, Dropdown List and Data Grid control.	**9**	**CO4**
5	**ASP.NET Advanced:** Request and Response Objects, Cookies, Session Management. **Working with Data**: OLEDB Connection class, Command class, Dataset Class and Data Adapter class - Program using database connectivity	**9**	**CO5**

TEXT BOOKS:

1. **Thomas A Powell**, "*The Complete Reference HTML*", Fifth Edition, 2017, TMH.
2. **Julia Case Brandley, Anita C. Millspaugh**,"*Programming in Visual Basic.Net*", 2003, Tata McGrawHill.
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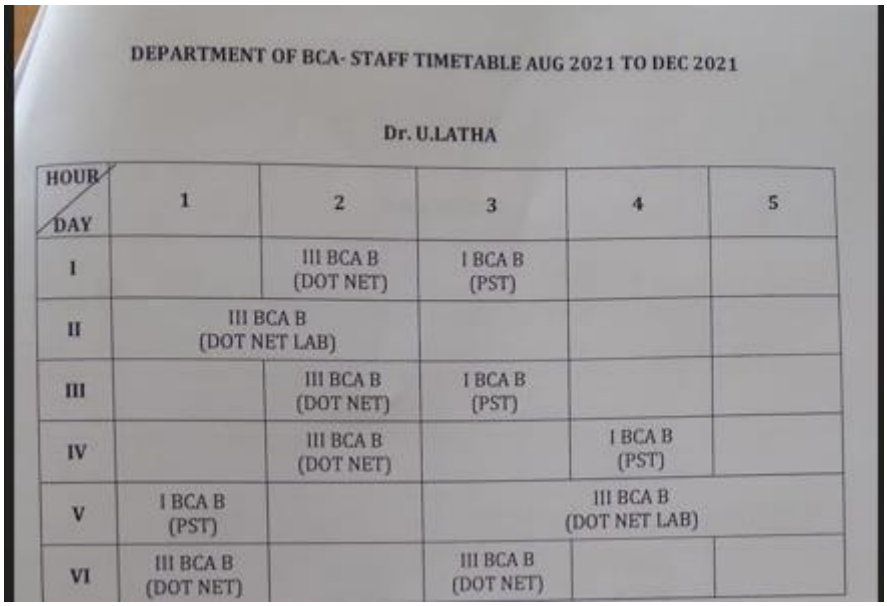
Time Table



DEPARTMENT OF BCA- STAFF TIMETABLE AUG 2021 TO DEC 2021

Dr. U.LATHA

HOUR / DAY	1	2	3	4	5
I		III BCA B (DOT NET)	I BCA B (PST)		
II	III BCA B (DOT NET LAB)				
III		III BCA B (DOT NET)	I BCA B (PST)		
IV		III BCA B (DOT NET)		I BCA B (PST)	
V	I BCA B (PST)		III BCA B (DOT NET LAB)		
VI	III BCA B (DOT NET)		III BCA B (DOT NET)		

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Department of B.C.A

CIA – I Question Paper

Department of Computer Applications (B.C.A.)
Dot Net Programming

Max. Marks : 50

Section-A (5*2=10 marks)
Answer ALL the questions

1) List any two text formatting tags?
2) Illustrate HTML Document Structure?
3) Name any two mathematical function?
4) Explain function with example?
5) Define Anchor tag with example

Section-B (4*5=20 marks)
Answer ALL the questions (Internal Choice)

6) a) Apply a program for Ordered List and Unordered List?
(or)
b) Develop an example for Linking document for Anchor tag?
7) a) Build a program for Sub Procedures with suitable example?
(or)
b) Make use of Arrays and write a program? Explain?
8) a) Build a program using text formatting tags with syntax?
(or)
b) Make use of basic controls and create an application form for college?
9) a) Apply a program to create a function in detail?
(or)
b) Develop and write about decision making and conditions?

Section-C (2*10=20 marks)
Answer ALL the questions (Qn. 10 is Compulsory)

10) Design a HTML program to create train time table using table and link controls?
11) a) Analyze and write about decision making and conditions with suitable example?
(or)
b) Analyze and write about decision making and looping with suitable example?

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CIA – II Question Paper

Department of Computer Applications (B.C.A.)
Dot Net Programming

Max. Marks : 50

Section-A (5*2=10 marks)
Answer ALL the questions

1) Explain Exception handling?
2) How Required Field Validator works?
3) Compare Check Box and Radio Button?
4) Define Cookies?
5) Show Request object?

Section-B (4*5=20 marks)
Answer ALL the questions (Internal Choice)

6) a) Examine cut, copy and paste functionalities in a form in VB.Net?
(or)
b) Analyze about Scroll bar control with suitable example?
7) a) Determine about ASP.Net Language Structure?
(or)
b) Defend in briefly about Data List Webserver Controls in ASP.Net?
8) a) Assess in detail about Session Management with example program?
(or)
b) Compare OLEDB Connection Class and Command Class?
9) a) Analyze about Animation and write a simple animation program?
(or)
b) Defend Required Validator and Compare Validator with example?

Section-C (2*10=20 marks)
Answer ALL the questions (Qn. 10 is Compulsory)

10) Examine in detail about Timer Control with example?
11) a) Determine about Validator controls with an example program?
(or)
b) Assess and write a program about database connectivity for student data?

Reg. No. : | | | | | | | | |

NOVEMBER 2021 **U/825/18-19/07519**

DOT NET PROGRAMMING

Time : Three hours Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define Anchor tag with example.
2. Show Image tag with example.
3. List the types of operators.
4. Illustrate sub procedure with syntax.
5. Name any two basic controls with diagram.
6. Explain Exception handling.
7. How Required Field Validator works?
8. Compare Check Box and Radio Button.
9. Define Cookies.
10. Show Request object.

SECTION B — (5 × 7 = 35 marks)

Answer ALL the questions (Internal Choice).

11. (a) Build a program using text formatting tags with syntax.

Or

(b) Make use of basic controls and create an application form for college.

12. (a) Apply a program to create a function in detail.

Or

(b) Develop and write about decision making and conditions.

13. (a) Examine cut, copy and paste functionalities in a form in VB.Net.

Or

(b) Analyze about Scroll bar control with suitable example.

14. (a) Determine about ASP.Net Language Structure.

Or

(b) Defend in briefly about Data List Webserver Controls in ASP.Net.

15. (a) Assess in detail about Session Management with example program.

Or

(b) Compare OLEDB Connection Class and Command Class.

SECTION C — (3 × 15 = 45 marks)

Answer ALL the questions.

(Qn: 16 is compulsory)

16. Design a HTML program to create your bio-data using various controls.

17. (a) Analyze and write about decision making and looping with suitable example.

Or

(b) Examine in detail about Timer Control with example.

18. (a) Determine about Validator controls with an example program.

Or

(b) Assess and write a program about database connectivity for student data.

———————

DOT NET Programmming

UNIT – I

HTML is the standard markup language for creating Web pages.

What is HTML?

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

Sample Documents:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

Example Explained

- The `<!DOCTYPE html>` declaration defines that this document is an HTML5 document
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the HTML page
- The `<title>` element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The `<body>` element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag:

<tagname> Content goes here... </tagname>

The HTML **element** is everything from the start tag to the end tag:

<h1>My First Heading</h1>

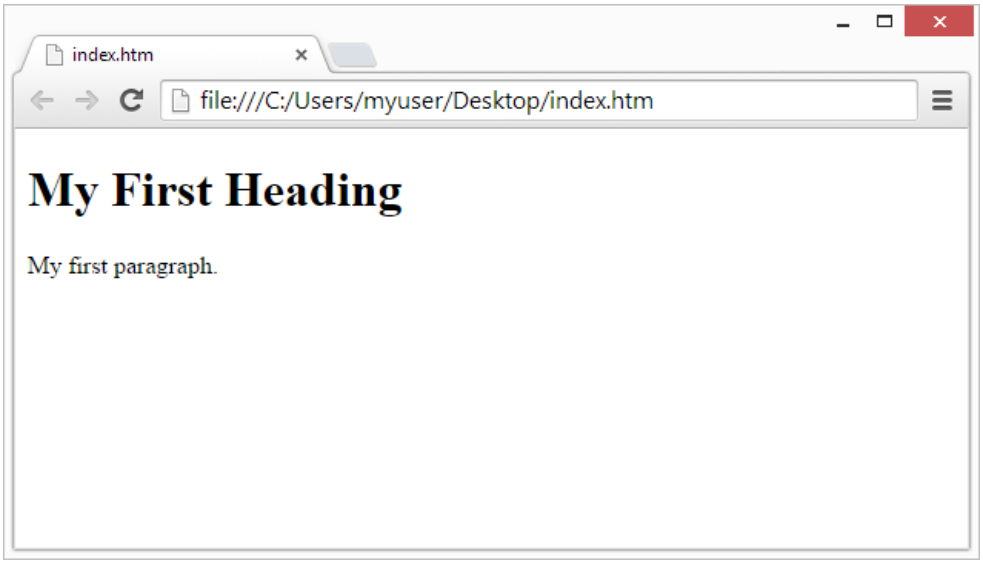
My first paragraph.

Start tag	**Element content**	**End tag**
<h1>	My First Heading	</h1>
	My first paragraph.	
 	none	*none*

Web Browsers

The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly.

A browser does not display the HTML tags, but uses them to determine how to display the document:



HTML Documents

All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.

The HTML document itself begins with `<html>` and ends with `</html>`.

The visible part of the HTML document is between `<body>` and `</body>`.

```
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

The <!DOCTYPE> Declaration

The `<!DOCTYPE>` declaration represents the document type, and helps browsers to display web pages correctly.

It must only appear once, at the top of the page (before any HTML tags).

The `<!DOCTYPE>` declaration is not case sensitive.

The `<!DOCTYPE>` declaration for HTML5 is

`<!DOCTYPE html>`

HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

<h1> defines the most important heading. <h6> defines the least important heading:

```
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
```

HTML Paragraphs

HTML paragraphs are defined with the <p> tag:

```
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
```

How to View HTML Source?

Have you ever seen a Web page and wondered "Hey! How did they do that?"

View HTML Source Code:

Right-click in an HTML page and select "View Page Source" (in Chrome) or "View Source" (in Edge), or similar in other browsers. This will open a window containing the HTML source code of the page.

Inspect an HTML Element:

Right-click on an element (or a blank area), and choose "Inspect" or "Inspect Element" to see what elements are made up of (you will see both the HTML and the CSS). You can also edit the HTML or CSS on-the-fly in the Elements or Styles panel that opens.

HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

The href Attribute

The `<a>` tag defines a hyperlink. The `href` attribute specifies the URL of the page the link goes to:

Example

```
<a href="https://www.w3schools.com">Visit W3Schools</a>
```

The src Attribute

The `<img>` tag is used to embed an image in an HTML page. The `src` attribute specifies the path to the image to be displayed:

Example

```
<img src="img_girl.jpg">
```

There are two ways to specify the URL in the `src` attribute:

1. Absolute URL - Links to an external image that is hosted on another website. Example: src="https://www.w3schools.com/images/img_girl.jpg".

Notes: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; it can suddenly be removed or changed.

2. Relative URL - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page. Example: src="img_girl.jpg". If the URL begins with a slash, it will be relative to the domain. Example: src="/images/img_girl.jpg".

Tip: It is almost always best to use relative URLs. They will not break if you change domain.

The width and height Attributes

The `<img>` tag should also contain the `width` and `height` attributes, which specifies the width and height of the image (in pixels):

Example

```
<img src="img_girl.jpg" width="500" height="600">
```

The alt Attribute

The required `alt` attribute for the `<img>` tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to slow connection, or an error in the `src` attribute, or if the user uses a screen reader.

EDefine an HTML Table

A table in HTML consists of table cells inside rows and columns

Example

xample

```
<img src="img_girl.jpg" alt="Girl with a jacket">
```

```
<table>
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
```

```
  </tr>
</table>
```

Table Cells

Each table cell is defined by a `<td>` and a `</td>` tag.

`td` stands for table data.

Everything between `<td>` and `</td>` are the content of the table cell.

```
<table>
  <tr>
                                                    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
</table>
```

Table Rows

Each table row starts with a `<tr>` and end with a `</tr>` tag.

`tr` stands for table row.

```
 <table>
   <tr>
     <td>Emil</td>
     <td>Tobias</td>
     <td>Linus</td>
   </tr>
   <tr>
     <td>16</td>
     <td>14</td>
     <td>10</td>
   </tr>
 </table>
```

Table Headers

Sometimes you want your cells to be headers, in those cases use the `<th>` tag instead of the `<td>` tag:

Example

Let the first row be table headers:

```
<table>
  <tr>
    <th>Person 1</th>
    <th>Person 2</th>
    <th>Person 3</th>
  </tr>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

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List of Courses relevant to Local, Regional, National and Global needs

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1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) of the Programme offered by the Institution.

Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
1	3	BBA	03102	Principles of Management
2	3	BBA	03310	Marketing Management
3	3	BBA	03311	Human Resource Management
4	3	BBA	03517A	Service Marketing
5	3	BBA	03416	Advertising Management & Sales Promotion
6	3	BBA	03414A	Digital Marketinng
7	3	BBA	03624	Financial Services
8	3	BBA	03101	Accounting for Managers I
9	3	BBA	03205	Accounting for Managers II
10	3	BBA	03520	Entrepreneurship Development
11	3	BBA	03207	Computer Application in Business
12	3	BBA	03622	Business Ethics & Values
13	3	BBA	03208	Personality Development
14	9	B.Sc., Physics	09207	Core Practcal I-Physics
15	9	B.Sc., Physics	09208	Core Practcal II-Physics
16	9	B.Sc., Physics	09624	Core Practical III - GeneraL
17	9	B.Sc., Physics	09625	Core Practical-IV - Basic
18	9	B.Sc., Physics	09626	core practical V- Applied
19	9	B.Sc., Physics	09622	Digital Electronics
20	9	B.Sc., Physics	09623	Microprocessor Fundamentals
21	9	B.Sc., Physics	09103	PHYSICS IN EVERYDAY LIFE – I
22	9	B.Sc., Physics	09206	PHYSICS IN EVERYDAY LIFE – II
23	9	B.Sc., Physics	09622	Digital Electronics
24	9	B.Sc., Physics	09518	Basic Electronics
25	9	B.Sc., Physics	09519	Applied Electronics
26	9	B.Sc., Physics	09623	Microprocessor Fundamentals
27	10	B.Sc., Chemistry	10101	General Chemistry I
28	10	B.Sc., Chemistry	10410	Volumetric Analysis
29	10	B.Sc., Chemistry	10516	Physical Chemistry I
30	10	B.Sc., Chemistry	10517	Analytical Chemistry
31	11	B.Sc., Biochemistry	11103	NME -Medical Terminologies
32	11	B.Sc., Biochemistry	11623(A)	Pharmaceutical Biochemistry
33	11	B.Sc., Biochemistry	11624(B)	First aid
34	11	B.Sc., Biochemistry	24105(B)	Phytomedicine
35	11	B.Sc., Biochemistry	11624(C)	Therapeutic nutrition
36	11	B.Sc., Biochemistry	11101	Nutritional Biochemistry
37	11	B.Sc., Biochemistry	11206	NME Prevention and management of Lifestyle Disease

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College with Potential for Excellence
Linguistic Minority Institution
Affiliated to University of Madras
Arumbakkam, Chennai 600 106

Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
38	13	B.Sc Plant Biology and Plant Biotechnology	13101	Bio-techniques, Fungi and Lichens
39	13	B.Sc Plant Biology and Plant Biotechnology	13204	Basics in Microbiology and Plant Pathology
40	13	B.Sc Plant Biology and Plant Biotechnology	13519	Horticulture and Mushroom Cultivation
41	13	B.Sc Plant Biology and Plant Biotechnology	397201	Ethics and Human Values
42	13	B.Sc Plant Biology and Plant Biotechnology	13206	Public Health and Hygeine
43	13	B.A., Economics	1311	Tourism and Economic Development
44	13	B.A., Economics	1414	Elements of Insurance
45	14	B.Sc., Viscom	14311	Advertising
46	14	B.Sc., Viscom	14102	Writing for Media
47	14	B.Sc., Viscom	14206	Digital Photography
48	14	B.Sc., Viscom	14209	Graphic Design
49	14	B.Sc., Viscom	14105	Digital Art
50	14	B.Sc., Viscom	14210	Advertising
51	14	B.Sc., Viscom	14311	Computer Graphics
52	14	B.Sc., Viscom	14313	Photography
53	14	B.Sc., Viscom	14314	Film Studies
54	14	B.Sc., Viscom	14415	Advanced Photography
55	14	B.Sc., Viscom	14416	Multimedia
56	14	B.Sc., Viscom	14418	Digital Cinematography
57	14	B.Sc., Viscom	14419	Newsletter
58	14	B.Sc., Viscom	14520	Audio Video Editing
59	14	B.Sc., Viscom	14521	Media Organization
60	14	B.Sc., Viscom	14523	Audio Visual Techniques
61	14	B.Sc., Viscom	14525	3ds Max and Maya
62	14	B.Sc., Viscom	14526	Broadcast Journalism
63	14	B.Sc., Viscom	14631	Documentary Production
64	15	B.Sc., Computer Science	15205	Object Oriented Programming using C++,
65	15	B.Sc., Computer Science	15309	Java Programming
66	15	B.Sc., Computer Science	15310	Web Design

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Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
67	15	B.Sc., Computer Science	15105	Fundamentals of Information technology
68	21	M.Sc., Mathematics	21318	Digital Logic Fundamentals
69	21	M.Sc., Mathematics	21424	Algorithms
70	22	M.Sc., Physics	22313(C)	Elective II - Paper 15 - Medical Physics
71	22	M.Sc., Physics	22312	Core Paper XII - Quantum Mechanics II
72	24	M.Sc., Biochemistry	24313	Advanced Clinical Biochemistry
73	24	M.Sc., Biochemistry	24316(B)	Advanced Medical lab technology
74	24	M.Sc., Biochemistry	24209(C)	Microbiology
75	24	M.Sc., Biochemistry	24316(C)	Bioentrepreneurship
76	24	M.Sc., Biochemistry	24210(A)	Bioethics, IPR & HR
77	24	M.Sc., Biochemistry	24420(C)	Healthcare management
78	25	M.Sc., Biotechnology	25209	Extra Disciplinary – 1: Pharmaceutical Biotechnology
79	25	M.Sc., Biotechnology	25212	Core Practical – I Biochemistry and Molecular Cell Biology
80	25	M.Sc., Biotechnology	25213	Core Practical – II Microbiology, Immunology & Immunotechnology
81	25	M.Sc., Biotechnology	25210(B)	Elective Paper – 2B: Marine Biotechnology
82	25	M.Sc., Biotechnology	25206	Core Paper – 5: Animal Biotechnology
83	25	M.Sc., Biotechnology	25211(C)	Elective Paper – 3C Stem cell Biology
84	25	M.Sc., Biotechnology	25316	Core Paper – 9: Bioprocess Technology
85	25	M.Sc., Biotechnology	25317	Core Paper – 10: Bioinformatics
86	25	M.Sc., Biotechnology	25318	Core Paper – 11: Enzymes & enzyme Technology
87	25	M.Sc., Biotechnology	25319(A)	Elective Paper – 4A Advanced Molecular techniques
88	25	M.Sc., Biotechnology	25209	Extra Disciplinary – 1: Pharmaceutical Biotechnology
89	25	M.Sc., Biotechnology	25319(B)	Elective Paper – 4B Nano Biotechnology
90	25	M.Sc., Biotechnology	25422	Core Practical-IV: Genetic engineering and Bioprocess Technology
91	25	M.Sc., Biotechnology	25423	Core Practical-III: Bioinformatics, Enzymes & enzyme Technology

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Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
92	25	M.Sc., Biotechnology	25214	Core Practical: III : Animal Biotechnology, Plant Biotechnology and Environmental Biotechnology -
93	25	M.Sc., Biotechnology	25421	Open Elective Paper: Herbal Technology
94	25	M.Sc., Biotechnology	2125317	Core Paper – 10: Bioinformatics
95	25	M.Sc., Biotechnology	25211(B)	Elective Paper – 3B Clinical Trials
96	25	M.Sc., Biotechnology	25208	Core Paper –7: Environmental Biotechnology
97	25	M.Sc., Biotechnology	25105(B)	Elective Paper – 1B Ecology, Evolution and Behavior
98	25	M.Sc., Biotechnology	25420	Extra Disciplinary – 2: Research Methodology, Bioethics & Biostatistics
99	26	M.Sc., Microbiology	26317	Principles of Bioprocess Technology & Pharmaceutical Microbiology
100	26	M.Sc., Microbiology	26102	Medical Microbiology – I
101	26	M.Sc., Microbiology	26210	Medical Microbiology – II
102	26	M.Sc., Microbiology	26316	Recombinant DNA Technology
103	27	M.Sc., Information Technology	27104	Programming in PHP
104	27	M.Sc., Information Technology	27211	Enterprise computing
105	27	M.Sc., Information Technology	27318	Internet Technology
106	27	M.Sc., Information Technology	28103	Database management systems
107	27	M.Sc., Information Technology	28102	Computer organization and architecture
108	27	M.Sc., Information Technology	28105	Linux System Administration
109	30	MBA	30318	Merchant Banking and Financial Services
110	30	MBA	30317	Investment Management
111	30	MBA	30427	Integrated Marketing Communication
112	31	M.A., Economics	31104	Health economics
113	33	MSW	33101	Social Work Profession
114	33	MSW	33208	Social Welfare Administration and Social Legislation
115	33	MSW	33313(B)	Industrial Social Work
116	33	MSW	33313 (A)	Work Place Counselling
117	34	MA HRM		Enterpreneurship in Business HRM

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Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
118	35	B.Com (Honours)	35113	Modern Baking
119	35	B.Com (Honours)	35429	Financial Services
120	35	B.Com (Honours)	35536	Direct Taxation- I
121	35	B.Com (Honours)	35642	Direct Taxation- II
122	38	B.A., Tamil	38104	Tourism (NME -1)
123	38	B.A., Tamil	38624	Basic Computing
124	38	B.A., Tamil	38624	Basic Computing
125	38	B.A., Tamil	38101	Paper – 1 – Contemporary Literature - I (Poem & Prose)
126	38	B.A., Tamil	38205	Paper – 3 – Contemporary Literature – II (Short Stories, Novels, Dramas)
127	38	B.A., Tamil	38208	Vaishnavism (NME -2)
128	38	B.A., Tamil	38309	Paper – 5 – Devotional literature and Prabandhangal
129	39	B.A., English	39104	NME - I - Advertising and Public Relations
130	39	B.A., English	39515	Core – VIII– English Language Teaching
131	39	B.A., English	39624	Elective II – English for Career
132	42	B.A.., Criminology	42624	PRIVATE INVESTIGATION
133	42	B.A.., Criminology	42310	SOCIAL PROBLEMS
134	42	B.A.., Criminology	42415	COUNSELLING AND GUIDANCE
135	45	B.Com Accounting & Finance	45518	Enterpreneurship & new venture planning
136	45	B.Com Accounting & Finance	45623	Corporate Governance & Ethics
137	47	B.Sc., Psychology	47413	Marketing and Consumer Behaviour
138	47	B.Sc., Psychology	47321	Organisational Psychology,
139	47	B.Sc., Psychology	47414	Psychological Assessment
140	47	B.Sc., Psychology	47518	Social Psychology
141	47	B.Sc., Psychology	47207	Cross - Cultural Psychology
142	47	B.Sc., Psychology	47309	Developmental Psychology
143	47	B.Sc., Psychology	47515	Psychopathology
144	62	B.Com Finance & Taxation	62206	Principles of Management
145	62	B.Com Finance & Taxation	62311	Corporate & Business Laws
146	62	B.Com Finance & Taxation	62624	Insurance & Risk Management
147	62	B.Com Finance & Taxation	62103	Information Technology
148	62	B.Com Finance & Taxation	62207	Ethics & Corporate Governance

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Local Needs

Sl No	Programme Code	Programme Name	Course Code	Course Name
149	63	B.Com., Marketing Management	63101	Financial Accounting
150	63	B.Com., Marketing Management	63302	Internet and Digital Marketing
151	63	B.Com., Marketing Management	63305	Modern Banking
152	63	B.Com., Marketing Management	63403	Financial Services
153	63	B.Com., Marketing Management	63304	Entrepreneurial Devlopment

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Department of B.C.A

Course Title: CORE THEORY XII- DATABASE MANAGEMENT SYSTEM

Course Code	: 18-19/07520	Credits	: 04
L:T:P:S	: 4:1:0:0	CIA Marks	: 40
Exam Hours	: 03	ESE Marks	: 60

Course Objectives:

- *To understand the different issues involved in the design and implementation of a database system.*
- *To study the physical and logical database designs, database modeling, relational, hierarchical, and network models*
- *To understand and use data manipulation language to query, update, and manage a database*
- *To develop an understanding of essential DBMS concepts such as: database security, integrity, concurrency,*
- *To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS.*

Course Outcomes: At the end of the Course, the Student will be able to

CO1	To demonstrate the characteristics of Database Management Systems. To study about the concepts and models of database. To impart the concepts of System Development Life Cycle and E-R Model.
CO2	To classify the keys and the concepts of Relational Algebra. To impart the applications of various Normal Forms Classification of Dependency.
CO3	To elaborate the different types of Functions and Joins and their applications. Introduction of Views, Sequence, Index and Procedure.
CO4	Representation of PL-SQL Structure. To impart the knowledge of Sub Programs, Functions and Procedures.
CO5	Representation of Exception and Pre-Defined Exception. To Point out the Importance of Triggers, Implicit and Explicit Cursors.

Mapping of Course Outcomes to Program Outcomes

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	2	1	2	1
CO2	3	3	3	1	3	-
CO3	3	2	3	2	1	-
CO4	2	1	1	2	2	2
CO5	1	1	-	2	1	1

3: Strong 2: Medium 1: Low -: No Correlation

Department of B.C.A

Sl. No.	Contents of Module	Hrs	COs
1	**UNIT I: Introduction:** Database System-Characteristics of Database Management Systems- Architecture of Database Management Systems-Database Models-System Development Life Cycle-Entity Relationship Model.	9	CO1
2	**UNIT II: Relational Database Model:** Structure of Relational Model-Types of keys. Relational Algebra: Unary operations-Set operations-Join operations. Normalization: Functional Dependency- First Normal form-Second Normal Form-Third Normal form- Boyce-Codd Normal Form-Fourth Normal Form.	9	CO2
3	**UNIT III: SQL**: Introduction. **Data Definition Language**: Create, alter, drop, rename and truncate statements. **Data Manipulation Language**: Insert, Update and Delete Statements. **Data Retrieval Language**: Select statement. **Transaction Control Language**: Commit, Rollback and Savepoint statements. **Single row functions using dual**: Date, Numeric and Character functions. **Group/Aggregate functions:** count, max, min, avg and sum functions. **Set Functions**: Union, union all, intersect and minus. **Subquery**: Scalar, Multiple and Correlated subquery. **Joins**: Inner and Outer joins. **Defining Constraints:** Primary Key, Foreign Key, Unique, Check, Not Null.	9	CO3
4	**UNIT IV: PL/SQL**: Introduction-PL/SQL Basic-Character Set-PL/SQL Structure-SQL Cursor-Subprograms-Functions-Procedures.	9	CO4
5	**UNIT V: Exception Handling:** Introduction-Predefined Exception-User Defined Exception-Triggers-Implicit and Explicit Cursors-Loops in Explicit Cursor.	9	CO5

TEXT BOOK:

1. **Pranab Kumar Das Gupta and P. Radha Krishnan**, "*Database Management System Oracle SQL and PL/SQL*", Second Edition, 2013, PHI Learning Private Limited.

REFERENCE BOOKS:

1. **RamezElmasri and Shamkant B. Navathe**, "*Fundamentals of Database Systems*", Seventh Edition, Pearson Publications.
2. **Abraham Silberschatz, Henry Korth, S. Sudarshan**, "*Database System Concepts*", Seventh Edition, TMH.

E-REFERENCE:

1. http://www.amazon.in/DATABASE-MANAGEMENT-SYSTEM-ORACLE-SQL ebook/dp/B00LPGBWZ0#reader_B00LPGBWZ0

Department: B.C.A		Academic Semester: V	
Semester: V	Section: A	Course Code: 1907520	Course: Database Management System
Course Instructor: Ms. S. Sivaranjani		Contact Hours /week: 5	No. of credits: 04
CIA: 040		ESE : 100	Exam Hours: 03

Prerequisites if any:

Code No	Course Name	Description	Semester
1907520	Database Management System	Students can be able to design and build a simple database system	V

Content delivery: Chalk and Chat, Power Point appearance, question and Coursework

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	To demonstrate the characteristics of Database Management Systems. To study about the concepts and models of database. To impart the concepts of System Development Life Cycle and E-R Model.
CO2	To classify the keys and the concepts of Relational Algebra. To impart the applications of various Normal Forms Classification of Dependency.
CO3	To elaborate the different types of Functions and Joins and their applications. Introduction of Views, Sequence, Index and Procedure.
CO4	Representation of PL-SQL Structure. To impart the knowledge of Sub Programs, Functions and Procedures.
CO5	Representation of Exception and Pre-Defined Exception. To Point out the Importance of Triggers, Implicit and Explicit Cursors.

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	2	2	3	3	3	3	2
CO2	3	3	3	2	2	3	3	3	2	3	3	2
CO3	3	2	2	2	3	3	3	3	2	3	3	3
CO4	2	3	3	2	2	3	2	3	3	3	3	3
CO5	3	3	3	2	3	3	3	3	3	3	3	3

Correlation levels: 1- Weak 2-Medium 3-High

apping of CO v/s PSO:

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	2	1	2	1
CO2	3	3	3	1	3	-
CO3	3	2	3	2	1	-
CO4	2	1	1	2	2	2
CO5	1	1	-	2	1	1

Correlation levels: 1- Weak 2-Medium 3-High – No correlation

ap in the syllabus	Transaction Management, Advance Recovery Systems
opics to be covered beyond syllabus	DB2,Oracle,SQL Server

sessment Methodologies:

Sl. No.	Description	Type
1.	Student Assignment	Direct
2.	Internal assessment	Direct
3.	University exam	Direct
4.	Student feedback	Indirect
5.	Alumni feedback	Indirect
6.	Employers feedback	Indirect

COURSE DELIVERY PLAN

Lecture #	Module #	Topics	CO	Planned Date / No. of Hours	Actual Date	Faculty Sign	Remarks	HOD Sign
1	1	Introduction to Database System	CO1	1				
2		Characteristics of Database Management Systems		1				
3		Architecture of Database Management		1				
4		Systems Development Life Cycle		3				
5		Database Models		2				
6		Entity Relationship Model		2				
7		Test		1				
8	2	Introduction to Relational Database Model	CO2	3				
9		Structure of Relational Model		3				
10		Types of keys		1				
11		Relational Algebra, Unary operations		2				
12		Set operations, Join operations.		1				
13		Normalization: Functional Dependency, First Normal form		4				
14		Second Normal Form, Third Normal form		1				

	Boyce-Codd Normal Form, Fourth Normal Form		2	2			
	Test						
3	**SQL Data Definition Language**: Create, alter, drop, rename and truncate statements	CO3	2				
	Data Manipulation Language: Insert, Update and Delete Statements.		2				
	Data Retrieval Language: Select statement.		2				
	Transaction Control Language: Commit, Rollback and Savepoint statements.		2				
	Single row functions using dual: Date, Numeric and Character functions.		2				
	Group/Aggregate functions: count, max, min, avg and sum functions.		2				
	Set Functions: Union, union all, intersect and minus.		2				
	Sub query: Scalar, Multiple and Correlated sub query		2				

	Joins Inner and Outer joins.		1	
	Defining Constraints: Primary Key, Foreign Key, Unique, Check, Not Null		3	
	Test			
4	Introduction to PL/SQL	CO4	1	
	PL/SQL Basic		1	
	Character Set		1	
	PL/SQL Structure		1	
	PL/SQL Cursor		1	
	Subprograms, Functions		1	
	Procedures		1	
	Test			
5	Exception Handling Introduction	CO5	1	
	Introduction- Predefined Exception-		2	
	User Defined Exception-		2	
	Triggers		2	
	Implicit Cursors		1	
	Explicit Cursors		1	
	Loops in Explicit Cursor		1	
	Class Test			
	Oral Exam			

L1 - Remembering; L2 - Understanding; L3 - Applying; L4 - Analyzing; L5 - Evaluating; L6 - Creating

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OTHER REFERENCE:

1. http://www.amazon.in/DATABASE-MANAGEMENT-SYSTEM-ORACLE-SQL ebook/dp/B00LPGBWZ0#reader_B00LPGBWZ0

Assessment rubrics that is going to be adopted for direct attainment is depicted in below table

Level of Achievement	Elaboration on Course Grading Description	Bench Mark Set (Out of 40)
Excellent (A)	The Student's performance is outstanding in almost all the intended course learning outcomes	28 to 40
Good (B)	The student's performance is good in most of the intended course learning outcomes.	20 to 27
Marginal (C)	The student's performance is barely satisfactory. It marginally meets the intended course learning outcomes	16 to 19
Fail (F)	The Students performance is inadequate. Student fails to meet many of the intended course learning outcomes	Less than 16

NOTE: Have different Assessment pattern for tests, assignments, quizzes etc.

Course Instructor

Dept. IQAC Coordinator

HOD

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Department of B.C.A

Course Title: CORE THEORY XII- DATABASE MANAGEMENT SYSTEM

Course Code	**: 18-19/07520**	**Credits**	**: 04**
L:T:P:S	**: 4:1:0:0**	**CIA Marks**	**: 40**
Exam Hours	**: 03**	**ESE Marks**	**: 60**

Course Objectives:

- *To understand the different issues involved in the design and implementation of a database system.*
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Mapping of Course Outcomes to Program Outcomes

	PSO1	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1	3	3	2	1	2	1
CO2	3	3	3	1	3	-
CO3	3	2	3	2	1	-
CO4	2	1	1	2	2	2
CO5	1	1	-	2	1	1

3: Strong 2: Medium 1: Low -: No Correlation

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Sl. No.	Contents of Module	Hrs	COs
1	**UNIT I: Introduction:** Database System-Characteristics of Database Management Systems- Architecture of Database Management Systems-Database Models-System Development Life Cycle-Entity Relationship Model.	**9**	**CO1**
2	**UNIT II: Relational Database Model:** Structure of Relational Model-Types of keys. Relational Algebra: Unary operations-Set operations-Join operations. Normalization: Functional Dependency- First Normal form-Second Normal Form-Third Normal form- Boyce-Codd Normal Form-Fourth Normal Form.	**9**	**CO2**
3	**UNIT III**: **SQL**: Introduction. **Data Definition Language**: Create, alter, drop, rename and truncate statements. **Data Manipulation Language**: Insert, Update and Delete Statements. **Data Retrieval Language**: Select statement. **Transaction Control Language**: Commit, Rollback and Savepoint statements. **Single row functions using dual**: Date, Numeric and Character functions. **Group/Aggregate functions:** count, max, min, avg and sum functions. **Set Functions**: Union, union all, intersect and minus. **Subquery**: Scalar, Multiple and Correlated subquery. **Joins**: Inner and Outer joins. **Defining Constraints:** Primary Key, Foreign Key, Unique, Check, Not Null.	**9**	**CO3**
4	**UNIT IV: PL/SQL**: Introduction-PL/SQL Basic-Character Set-PL/SQL Structure-SQL Cursor-Subprograms-Functions-Procedures.	**9**	**CO4**
5	**UNIT V**: **Exception Handling:** Introduction-Predefined Exception-User Defined Exception-Triggers-Implicit and Explicit Cursors-Loops in Explicit Cursor.	**9**	**CO5**

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Department of B.C.A

Time Table

Ms. L. MEENA

HOUR / DAY	1	2	3	4	5
I				III BCA B (DBMS LAB)	
II		II BCA A (CGM)	III BCA B (DBMS)		
III			III BCA B (DBMS LAB)		
IV	III BCA B (DBMS)		II BCA A (CGM)		III BCA B (DBMS)
V		III BCA B (DBMS)		II BCA A (CGM)	
VI		II BCA A (CGM)		III BCA B (DBMS)	

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CIA – I Question paper

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE (EVENING)
DEPARTMENT OF COMPUTER APPLICATIONS (B.C.A)

CIA-I-DBMS-III B.C.A "B"

Date:07/10/2021 **Hours:1:30 Hrs**
Maxmarks:50

SECTION A(5*2=10marks)
ANSWER ALL THE QUESTIONS

1. What is DBMS?(K1)
2. What is Physical level concerned with? (K1)
3. Define mapping. (K1)
4. What are the two Data Control Language commands? (K1)
5. Define SQL. (K1)

SECTION B(4*5=20 marks)

6. Explain the drawbacks of file organization.(K2)
   (or)
   What are the advantages of DBMS?(K1)
7. List the differences between File Processing System and DBMS.(K4)
   (or)
   Write notes on Mapping Cardinalities.(K1)
8. Explain DML Commands with example(K2).
   (or)
   Explain TCL Commands with example.(K2)
9. Apply Set Operations .Give examples.(K3)
   (or)
   Explain Constraints with example.(K2)

SECTION C(2*10=20 marks)
NOTE:QUESTION NO 10 IS COMPULSORY

10. Explain in detail on SELECT command with example.(K2)
11. Write a detailed notes on the architecture of DBMS.(K1)
    (or)
    Explain the Life Cycle of System Development (SDLC).(K2)

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CIA –II Question paper

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE (EVENING)

DEPARTMENT OF COMPUTER APPLICATIONS (B.C.A)

CIA-II-DBMS-III B.C.A "B"

Date:14/12/2021
Hours:1:40 Hrs **Maxmarks:50**

SECTION A(5*2=10marks)

ANSWER ALL THE QUESTIONS

1. What is PL/SQL? (K1)
2. Give any two advantages of PL/SQL (K1)
3. Define Character set of PL/SQL (K1)
4. What are Numeric Literals? (K1)
5. What is the difference between procedure and function in PL/SQL? (K1)

SECTION B(4*5=20 marks)

6. Explain the architecture of PL/SQL (K2)
   (or)
   What are the rules for naming a variable in PL/SQL? (K1

7. List the constants used in PL/SQL and explain. (K4)
   (or)
   Write notes on Literals. (K1

8. Explain Comments in PL/SQL with example (K2).
   (or)
   Explain the two ways to execute a procedure (K2

9. Apply different types of parameters in procedure with examples (K3)
   (or)
   Explain PL/SQL Functions (K2)

SECTION C(2*10=20 marks)

NOTE:QUESTION NO 10 IS COMPULSORY

10. Explain in detail on the PL/SQL Block Structure.(K2)

11. Write a detailed notes on the Conditional Statements in PL/SQL.(K1)
    (or)
    Explain the Iterative Statements in PL/SQL with examples .(K2)

Reg. No. : | | | | | | | | |

NOVEMBER 2021 **U/826/18-19/07520**

DATABASE MANAGEMENT SYSTEMS

Time : Three hours Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. List any five advantages of DBMS.

2. Explain :
   (a) Attributes
   (b) Entity Set.

3. What is foreign key? Give example.

4. Outline: Normalization and its types.

5. Define :
   (a) View
   (b) Index.

6. Explain various Datatypes in SQL.

7. What is Row Type in PL/SQL?

8. Show Multi-Line comments in PL/SQL.

9. What are the 3 basic parts of an Exception?

10. Illustrate any 4 benefits of trigger.

SECTION B — (5 × 7 = 35 marks)

Answer ALL the questions (Internal Choice)

11. (a) Build neat diagrams for Database models and explain briefly.

Or

(b) Construct and explain various mapping cardinalities in DBMS.

12. (a) Identify and explain Division operations of relational algebra.

Or

(b) Apply: 1NF,2NF,3NF for SUPPLIER relation for the fields supNo, partNo, qty, city, pin.

13. (a) List various Numeric functions in SQL with examples.

Or

(b) Examine : TCL commands in SQL with examples.

14. (a) Determine Constants and Literals in PL/SQL with examples.

Or

(b) Evaluate on Functions in PL/SQL.

15. (a) Assess: User-defined Exceptions in PL/SQL with examples.

Or

(b) Explain the concept of Implicit Cursors in PL/SQL with examples.

SECTION C — (3 × 15 = 45 marks)

Answer ALL the questions.

(Qn: 16 is compulsory)

16. Discuss : SQL DRL commands with examples.

17. (a) Analyze the various JOIN operations used in relational algebra.

Or

(b) List : SQL Single Row functions with examples.

18. (a) Determine briefly about Iterative statements in PL/SQL.

Or

(b) Assess the concept of Triggers in PL/SQL with examples.

———————

UNIT 1

Introduction: Database System-Characteristics of Database Management Systems- Architecture of Database Management Systems-Database Models-System Development Life Cycle-Entity Relationship Model.

DATABASE SYSTEM

A file is a collection of information. A file contains one or more records. Eg: Astudent file will have fields like rollno, name, percentage, division.

Rollno	Name	Percentage	Division
1	Abi	72	1
2	Roy	83	1
3	Priyanka	63	2

The collection of information about a particular student in one line or row of the table is an example for record. Each record in a file may contain many fields, but the valuein a certain field may uniquely determine the record in the file. Such a field is known as **keyfield**. Here the rollno may act as the key field. The earliest business computer systems wereused to process these types of business records and produce information. They are generally faster and accurate than manual systems. The various types of files in use were Sequential files, index sequential files, direct file organization etc.

Drawbacks of File Organization

Keeping organizational information in file processing system has a number of disadvantages as follows:

1. **Data redundancy and inconsistency**: Since different programmers create the files and application programs over a long period, the various files are likely to have different formats and the programs may be written in several programming languages. Moreover, the same information may be duplicated in several files (redundancy) which leads to higher storage, access cost and **data inconsistency,** the various copies of the same data may no longer agree.
2. **Difficulty in accessing and isolating data**: Suppose that one of the bank officers needs to find out the names of all customers who live within a particular postal-codearea. The officer asks the data-processing department to generate such a list. Because the designers of the original system did not anticipate this request, there is no application program on hand to meet it. There is, however, an application program to generate the list of all customers. The bank officer has now two choices: either obtain the list of all customers and extract the needed information manually or ask a system programmer to write the necessary application program. Both alternatives are obviously unsatisfactory. Suppose that such a program is written, and that, several days later, the same officer needs to trim that list to include only

those customers who have an account balance of $10,000 or more. As expected, a program to generate such a list does not exist. Again, the officer has the preceding two options, neither of which is satisfactory.

So a conventional file-processing do not allow needed data to be retrieved in a convenient and efficient manner. More responsive data-retrieval systems are required for general use. Because data are scattered in various files, and files may bein different formats, writing new application programs to retrieve the appropriate data is difficult.

3. **Integrity problems:** The data values stored in the database must satisfy certain types of **consistency constraints**. For example, the balance of a bank account may never fall below a prescribed amount (say, $25). Developers enforce these constraints in the system by adding appropriate code in the various application programs. However, when new constraints are added, it is difficult to change the programs to enforce them. The problem is compounded when constraints involve several data items from different files.
4. **Atomicity problems:** A computer system, like any other mechanical or electrical device, is subject to failure. In many applications, it is crucial that, if a failure occurs, the data be restored to the consistent state that existed prior to the failure. Consider a program to transfer $50 from account A to account B. If a system failure occurs during the execution of the program, it is possible that the $50 was removed from account A but was not credited to account B, resulting in an inconsistent database state. Clearly, it is essential to database consistency that either both the credit and debit occur, or that neither occur. That is, the funds transfer must be atomic—it must happen in its entirety or not at all. It is difficult to ensure atomicity in a conventional file-processing system.
5. **Concurrent-access anomalies**: For the sake of overall performance of the system and faster response, many systems allow multiple users to update the data simultaneously. In such an environment, interaction of concurrent updates may result in inconsistent data. Consider bank account A, containing $500. If two customers withdraw funds (say $50 and $100 respectively) from account A at about the same time, the result of the concurrent executions may leave the account in an incorrect (or inconsistent) state. Suppose that the programs executing on behalf of each withdrawal read the old balance, reduce that value by the amount being withdrawn, and write the result back. If the two programs run concurrently, they may both read the value $500, and write back $450 and $400, respectively. Depending on which one writes the value last, the account may contain $450 or
$400, rather than the correct value of $350. To guard against this possibility, the system must maintain some form of supervision. But supervision is difficult to provide because data may be accessed by many different application programs that have not been coordinated previously.
6. **Security problems**: Not every user of the database system should be able to access all the data. For example, in a banking system, payroll personnel need to see only that part of the database that has information about the various bank employees. They do not need access to information about customer accounts. But, since application programs are added to the system in an ad hoc manner, enforcing such security constraints is difficult.

DATA BASE MANAGEMENT SYSTEMS (DBMS)

An alternate to the file processing system is the database. Database is a collection of data. A Database is a collection of interrelated data stored together without harmful or unnecessary redundancy. It contains information about one particular enterprise. A Database Management System (DBMS) is a software package used to create and manage data. DBMS is a set of prewritten programs that are used to store, update and retrieve a database. A DBMS controls the organization, storage, management and retrieval of database. The primary goal of a DBMS is to provide an environment that is both convenient and efficient to use in retrieving and storing database information.

By data**,** we mean known facts that can be recorded and that have implicit meaning. Database systems are designed to manage large bodies of information. Management of data involves both defining structures for storage of information and providing mechanisms for the manipulation of information. In addition, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access. If data are to be shared among several users, the system must avoid possible wrong results.

DBMS accepts requests for data from the application program and instructs the operating system to transfer the appropriate data. When a DBMS is used, information systems can be changed much more easily as the organization's information requirements change. New categories of data can be added to the database without disruption to the existing system.

Advantages of DBMS

1. **Redundancy can be reduced:** In non-database systems, each application has its own private files resulting in considerable amount of redundancy of the stored data.Thus storage space is wasted which can be avoided by a centralized database.
2. **Inconsistency can be avoided:** When the same data changed at one site not propagated to the other site, gives rise to inconsistency. Then the two entries regarding the same data will not agree. If the redundancy is removed, chances of having inconsistent data are also removed.
3. **Data Independence:** Application programs should be as independent as possible from details of data representation and storage. The DBMS can provide an abstract view of the data to insulate application code from such details.
4. **Efficient Data Access:** A DBMS utilizes a variety of sophisticated techniques to store and retrieve data efficiently. The data stored from one application can be used by other (sharing). This feature is especially important if the data is stored on external storage devices. With the integration of the operational data, it may be possible for organization to derive additional information from the same data.
5. **Data Administration:** When several users share the data, centralizing the administration of data can offer significant improvements. Experienced professionals, who understand the nature of the data being managed, and how different groups of users use it, can be responsible for organizing the data representation to minimize redundancy and fine-tuning the storage of the data to make retrieval efficient. With the central control of the database, DBA can ensure that all applicable standards are observed in data representation. All controls

related to the database are done from a central place. DBA creates users and assign privileges for users. He is also responsible for creation, deletion, modification and fine-tuning of database.

6. **Database Integrity:** Database integrity refers to the validity and consistency of stored data. If data is always accessed through the DBMS, the DBMS can enforce integrity constraints on the data. DBA can define the access paths for accessing the data stored in database and can define authorization checks (constraints) whenever access to sensitive data is attempted. For example, before inserting salary information for an employee, the DBMS can check that the department budget is not exceeded. Centralized control of database helps in permitting the administrator to define integrity (refers to data in the database is correct) constraints to the data in the database.
7. **Database Security**: Database Security is the protection of database from unauthorized users. The access that an authorized user is allowed on the data may be restricted by the operation type. Also, the DBMS can enforce access controls that govern what data is visible to different classes of users. Eg: DBA has access to all the data, a branch manager accesses to all data that relates to his branch while a sales assistant may access to all data relating to his job and not to any sensitive data.
8. **Concurrent Access and Crash Recovery**: A DBMS schedules concurrent accesses to the data in such a manner that users can think of the data as being accessed by only one user at a time. Further, the DBMS protects users from the effects of system failures.
9. **Reduced Application Development Time:** DBMS supports many important functions that are common to many applications accessing data stored in the DBMS. This, in conjunction with the high-level interface to the data, facilitates quick development of applications. Such applications are also likely to be more robust than applications developed from scratch because many important tasks are handled by the DBMS instead of being implemented by the application.
10. **Enforcement of standards:** Integration allows the DBA to define and enforce the necessary standards.

Disadvantages of DBMS

1. **Danger of Overkill**: For small and simple application for single user, a database system is often not advisable. Moreover failure to understand the system can lead to bad design decisions, which can have serious consequences for an organization.
2. **Size**: The complexity of functionality makes the DBMS an extremely large piece of software occupying megabytes of disk space and memory to run efficiently.
3. **Qualified Personnel**: The professional operation of a database system requires appropriately trained staff. Without a qualified database administrator nothing will work for long.
4. **Costs**: Through the use of a database system, new costs are generated for the system itself but also for additional hardware (larger machine dedicated to DBMS) and the more complex handling of the system. The supply and operation of a database management system with several users and databases is quite costly and demanding. Both implementation and maintenance cost encounters a lot for day-to-

day entry, modification of applications, backup, recovery and fine tuning of database, cost of training staff, conversion cost of system etc.

5. **Lower Efficiency**: A database system is a multi-use software which is often less efficient than specialized software which is produced and optimized exactly for one problem. Since a large number of users accessing the data when a database is used, the enterprise may involve additional risks as compared to a conventional file processing system.
6. **Confidentiality, Privacy and Security**: When the information is centralized and is made available to users from remote locations, the possibilities of misuse are often more than in a conventional data processing system. To reduce the chances of unauthorized users accessing sensitive information, it is necessary to take technical, administrative and legal measure.
7. **Database Damage:** Centralizing all data of a enterprise in one database may mean that the database becomes an indispensable resource. The survival of the enterprise may depend on reliable information being available from its database. The enterprise hence becomes vulnerable to the destruction of the database or to unauthorized modification of the database. Since all data is integrated into single database, if it is damaged due to corruption, valuable information may be lost.

FILE PROCESSING SYSTEM	DBMS
Collection of related records	Collection of related tables
Have redundant data items	Reduces the amount of redundancy
Allows access to single file at a time and accommodate only flat files which have no relation among one another	Allows access to many tables at a time
Coordinates physical access to the data	Coordinates physical and logical accessto the data
Allows only predetermined access to data	Flexibility in accessing data by queries
Restrictive in simultaneous data access	Designed to co-ordinate and permit multiple users to access data at the same time
Do not have keys to find data rapidly	Has a unique key or index to access data randomly which allows the data to be segregated into multiple databases

CHARACTERISTICS OF DATABASE

The most desirable characteristics of a database system are as follows:

1. **Data Representation**: Data representation is divided into two parts: high-level details and low-level details. The high-level view of data represents information related to the table, number of records in the table and attributes that form the record. The low-level details deal with the physical storage of data.

2. **Performance**: The performance of a DBMS is determined by its response time. The type of physical storage and memory do effect response time. In any database, data should be stored in such a manner that they can be accessed quickly and conveniently.
3. **Integrity**: When large number of users concurrently uses a database the data items and associations between them must not be destroyed. A unit of activity must be either completed fully or nothing should be done. Storage, insertion, updating and deletion of data have to be performed efficiently to face any hardware failure.
4. **Minimal Redundancy**: The redundant data consume a lot of memory space and problems in database transactions. So DBMS should eliminate redundancy wherever possible using normalization.
5. **Privacy**: The privacy of DBMS implies that individuals and corporation, as a whole should have a due right to determine themselves when, how and to what extent information available with them is to be transmitted to others.
6. **Security**: The security of data means protecting data against accidental or intentional disclosure to unauthorized persons. DBMS should include mechanism to authenticate users to access data as per their authorization. Features like multiple views offers security at some extent where users are unable to access data of other users and departments. DBMS offers methods to impose constraints while entering data into database and retrieving data at later stage. DBMS offers many different levels of security features, which enables multiple users to have different view with different features.
7. **Real-world entity**: Modern DBMS are more realistic and uses real world entities to design its architecture. It uses the behavior and attributes too.
8. **Relation-based tables**: DBMS allows entities and relations among them to form as tables. This eases the concept of data saving and readability of database.
9. **Isolation of data and application**: A database system is entirely different than its data. Where database is said to active entity, data is said to be passive one on which the database works and organizes. DBMS also stores metadata which is data about data, to ease its own process.
10. **Consistency**: DBMS always enjoy the state on consistency where the previous form of data storing applications like file processing does not guarantee this. Consistency is a state where every relation in database remains consistent. There exist methods and techniques, which can detect attempt of leaving database in inconsistent state and recover from them.
11. **Query Language**: DBMS is equipped with query language, which makes it more efficient to retrieve and manipulate data. A user can apply as many and different filtering options, as he wants. Traditionally it was not possible in file-processing system.
12. **ACID Properties**: DBMS follows the concepts for ACID properties- Atomicity, Consistency, Isolation and Durability. These concepts are applied on transactions, which manipulate data in database. ACID properties maintain database in healthy state in multi-transactional environment and in case of failure.

13. **Multiuser and Concurrent Access**: DBMS support multi-user environment and allows them to access and manipulate data in parallel. Though there are restrictions on transactions when they attempt to handle same data item, users are always unaware of them. DBMS must include concurrency control software to ensure that several users trying to update the same data do so in a controlled manner so that the result of the updates is correct. A fundamental role of multiuser DBMS software is to ensure that concurrent transactions operate correctly.
14. **Multiple views**: A view may be a subset of database. DBMS offers multiples views for different users. A user who is in sales department will have a different view of database than a person working in production department. This enables user to have a concentrate view of database according to their requirements. A good DBMS has facilities for defining multiple views. This is not only convenient for users, but also addresses security issues of data access.
15. **Self Description**: The database system contains not only the database itself but also a complete definition of the database structure and constraints. This definition is stored in the system catalog, which contains information such as thestructure of each file, the type and storage format of each data item etc. The information stored in the catalog is called metadata and it describes the primary database structure. The catalog is used by the DBMS software and also by database users who need information about the database structure.
16. **Data Abstraction**: In file processing system, a change in the structure of data needs every application in which a description of that file's structure is hard-coded must be changed. This is not required in database mostly (ie) DBMS provides a conceptual or logical view of the data to application programs, so that the underlying implementation may be changed without the programs being modified, which is referred as ***Program Data Independence***. The feature that allows data and operation independence is called as ***Data Abstraction***.

, Irving Kaplan (2002). Nuclear Physics, Narosa Publishing house, New Delhi.

WEB LINKS:

http://hyperphysics.phy-astr.gsu.edu/hbase/nuccon.html

http://hyperphysics.phy-astr.gsu.edu/hbase/Nuclear/nucstructcon.html

http://hyperphysics.phy-astr.gsu.edu/hbase/Nuclear/radact.html

http://hyperphysics.phy-astr.gsu.edu/hbase/Particles/parcon.html

https://www.int.washington.edu/users/mjs5/Class_560/lec560_1/node2.html

https://brilliant.org/wiki/nuclear-decay/

https://www.britannica.com/science/radioactivity

https://www.youtube.com/watch?v=1iOI8PIosVU

https://home.cern/science/accelerators/how-accelerator-works

http://abyss.uoregon.edu/~js/ast123/lectures/lec07.html

Elective II

(Any one of the three below)

I a.DIGITAL ELECTRONICS

urse Code : 09622	
T: P: S : 5:0:0:0	Credits 4
am Hours : 03	CIA Marks : 40
	ESE Marks : 60

rning Objectives: By studying this course student will be able to learn fundamentals of lean algebra synthesis of Boolean functions and combinational and sequential circuits and cs of IC fabrication technology.

rse Outcomes: At the end of the Course, the Student will be able to:
wledge level - K1(Remembering) ,K2(Understanding),K3(Applying) ,K4(Analyzing) , Evaluating) ,K6(Creating)

	CONTENTS OF MODULE	Hrs	COs
1	**Unit 1: Number System and Binary Code** Introduction, binary, octal and hexadecemal number system. Binary operations-addition; Subtraction, multiplication and division. Subtraction using 1's and 2's complement; BCD system.	1	CO1
2	**Unit 2: Combinational Logic Design** Boolean algebra-De Morgan's theorem- basic logic gates- NAND and NOR as universal gates-SOP, POS- Karnaugh map representation and simplification, pair, quad, octet (limited to four variables). Arithmetic circuits - half and full adders, half and full subtractors), BCD adder. Demultiplexers /Decoders, Multiplexers, Encoders, Code converters (BCD-to Binary, Binary to BCD converters).	1	CO2
3	**Unit 3 : Flip flops** Sequential logic circuits – 1-bit memory, Latch, R-S Flip flop, J-K Flip flop – Race-around condition – master – Slave Flip flop – T and D flip flops.	1	CO3
4	**Unit 4: Registers and counters** Registers, Modes of operation, shift right, shift left registers. Counters (4 bit). Ripple (or) asynchronous Counters – synchronous counters –Up - down counters – decade counter – BCD counter.	1	CO4
5	**Unit 5: Introduction to IC technology** Basic fabrication steps: epitaxial growth, oxidation, photolithography, etching, diffusion, ion implantation, film deposition and metallisation. Process integration for integrated Circuits, Diodes and transistor for monolithic circuits, integrated resistors, capacitors.	1	CO5

CO1	Classify numbers based on various number systems using digital technology and apply to solve binary operation.	K2,K3
CO2	Interpret real life situations using AND, OR, NOT, basic logic gates and extend their ideas to universal building blocks. Infer operation using Boolean Algebra simplify using mapping techniques.	K3
CO3	Construct analyze digital circuits - combinational and using logic circuits.	K3,K4
CO4	Build sequential circuits and analyze working.	K3,K4
CO5	Construct digital circuits – registers and counters analyze their working.	K3,K4
CO6	Explain basic of IC technology various process during fabrication and integration.	K2

Mapping of Course Outcomes to Program Outcomes:

Strongly correlated – 3 **moderately correlated – 2** **weakly correlated –1**

CO/PO/ PSO	PO										PSO				
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5
CO1	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3
CO2	3	3	3	2	3	2	3	3	3	3	3	3	3	2	3
CO3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3
CO4	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3
CO5	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3
CO6	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3

TEXT BOOKS:

1. V. Vijayendran (2005). Introduction to Integrated Electronics, S. Viswanathan (Printers and Publishers) Pvt. Ltd., Chennai.
2. R.P.Jain (1996). Digital Electronics by Practice Using Integrated Circuits, Tata McGraw Hill.
3. J. Millman and C. Halkias (2001). Integrated Electronics, Tata McGraw Hill, New Delhi.
4. Malvino Leach (1992). Digital Principles and Application (4th Edition), Tata McGraw Hill.

REFERENCE BOOKS:

1. D. Roy Choudhury and Shail Jain (2003). Linear Integrated Circuits, New Age Internation (P) Ltd.
2. I.J. Nagrath (1999). Electronics - Analog and Digital, Prentice Hall of India, New Delhi.

WEB LINKS:

Digital Electronics videos created by our alumni
https://youtu.be/JLz7qASICYU

https://youtu.be/u6m4lI-qZ58

https://youtu.be/C0HsQykDdKg

Other sources
https://youtu.be/-paFaxtTCkI
https://youtu.be/s1DSZEaCX_g

ELECTIVE II b. GEOPHYSICS

Course Code :	**Credits 4**
L: T: P: S : 5:0:0:0	**CIA Marks : 40**
Exam Hours : 03	**ESE Marks : 60**

Learning Objectives:

To make the students understand the basic principles of geophysics, geomagnetism and concepts of earthquakes.

Course delivery plan

III-B.SC PHYSICS/V|SEMESTER (2020-21)

Digital Electronics

Lecture #	Module #	Topics	Instructional hours	Date of completion	Faculty sign	Remarks	Hod sign
1	1	Review of various number system	1	20/1/21			
2		Binary to decimal and decimal to binary conversion	1	20/1/21	VS		
3		Hexa decimal to binary,octal and decimal conversion	1	21/1/21		V Sanjeeva	
4		Octal to binary, decimal and hexadecimal conversion	2	21/1/21			
5		Binary addition and subraction	1	22/1/21			
6		Binary multiplication and division	1	22/1/21			
7		1's complement	1	23/1/21			
8		2's complement	2	23/1/21			
9		Binary codes	1	25/1/21			
10		Bcd system	1	25/1/21			
11	2	combinational logic design boolean algebra	1	14/12/20			
12		De morgan's theorem	1	21/12/20 28/12/20			
13		Basic logic gates- nand and nor as universal gates	2	4/1/21 11/1/21			
14		Sop, pos- karnaugh map representation and simplification	1	18/1/21 8/2/21	DV		
15		Pair, quad, octet (limited to four variables).	1	22/8/21 3/2/21			
16		Problem solving using karnaugh map	2	1/3/21 23/21			
17		Arithmetic circuits - half and full adders,	1	29/3/21			
18		Half and full subtractors),	1	5/4/21			
19		Demultiplexers /decoders, multiplexers, encoders	1	12/4/21			

20		Code converters (bcd-to binary, binary to bcd converters).	1	13/1/21			
21	3	Latch nand latch	2	1/2/21			
22		Sr flip flop	2	2/2/21			
23		Clocked sr flipflop	2	3/2/21	VS	1	
24		D flip flop	1	4/2/21	V. Sanjeetha		
25		Jk flipflop	2	5/2/21			
26		Race around condition master slave flipflop	2	9/2/21			
27		T flipflop	1	10/2/21			
28							
29							
30							
31	4	Registers- shift register-right shift register	1	3/12/20			
32		Left shift register	1	5/12/20	SD		
33		Ring counter and johnson's counter	2	9/12/20		D. Lalitha	
34		Asynchrous counte rs	1	2/1/21			
35		Modulus 4,8 and 16 counters	2	7/1/21			
36		Up/down counter	1	21/1/21			
37		Decade counter	1	27/1/21			
38		Synchrounous counters	2	4/2/21			
39		Design of synchrous counters	1	6/2/21			
40					D. Lalitha		
41	5	Introduction to ic technology basic fabrication steps	2	13/2/21	SD.		
42		Epitaxial growth, oxidation	1	17/2/21			
43		Photolithography, etching	2	20/2/21			
44		Diffusion, ion implantation, film	2	27/2/21			

	5	deposition and metallisation					
45		Process integration for integrated circuits, diodes	2	1|3|21			
46		Transistors	1	4|3|21	D. Lali		
47		Integrated resistors	1	6|3|21			
48		Integrated capacitors	1	8|3|21			
49							
50							

Books for Study

1. Introduction to Integrated Electronics by V.Vijayendran, S. Viswanathan (Printers and Publishers) Pvt. Ltd., Chennai(2005).
2. Digital Electronics by Practice Using Integrated Circuits - R.P.Jain - Tata McGraw Hill(1996).
3. Integrated Electronics by J.Millman and C.Halkias, Tata McGraw Hill, New Delhi (2001) 4. Digital Principles and Application by Malvino Leach, Tata McGraw Hill, 4th Edition (1992).

Books for Reference

1. Linear Integrated Circuits by D. Roy Choudhury and Shail Jain - New Age Internation(P) Ltd.(2003)
2. Electronics - Analog and Digital by I.J. Nagrath - Prentice Hall of India, New Delhi(1999).

D. Lali

Course instructor dept. Iqac coordinator hod

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE

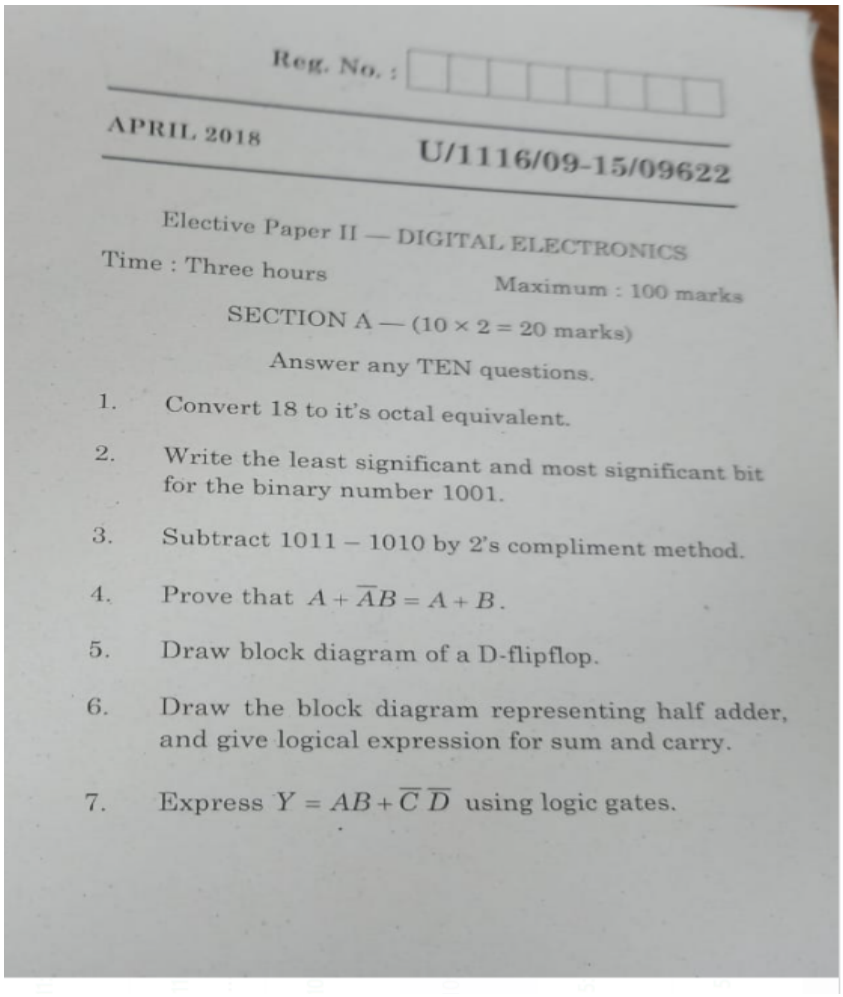
(Autonomous)

College with Potential for Excellence, Linguistic Minority Institution

Affiliated to University of Madras

Arumbakkam

Title of the Paper - DIGITAL ELECTRONICS



Reg. No. :

APRIL 2018 U/1116/09-15/09622

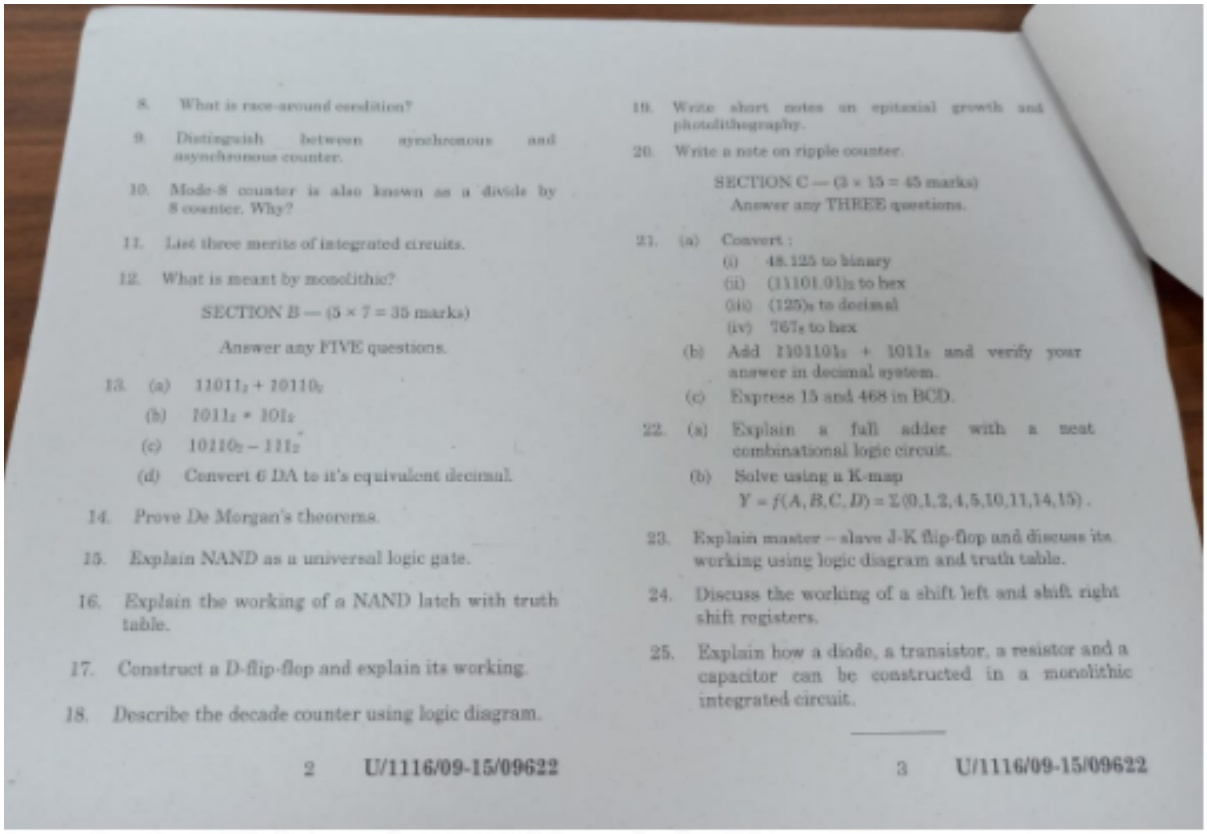
Elective Paper II — DIGITAL ELECTRONICS

Time : Three hours Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Convert 18 to it's octal equivalent.
2. Write the least significant and most significant bit for the binary number 1001.
3. Subtract 1011 – 1010 by 2's compliment method.
4. Prove that $A + \overline{A}B = A + B$.
5. Draw block diagram of a D-flipflop.
6. Draw the block diagram representing half adder, and give logical expression for sum and carry.
7. Express $Y = AB + \overline{C}\,\overline{D}$ using logic gates.



8. What is race-around condition?

9. Distinguish between synchronous and asynchronous counter.

10. Mode-8 counter is also known as a divide by 8 counter. Why?

11. List three merits of integrated circuits.

12. What is meant by monolithic?

SECTION B — (5 × 7 = 35 marks)

Answer any FIVE questions.

13. (a) $11011_2 + 10110_2$

(b) $1011_2 * 101_2$

(c) $10110_2 - 111_2$

(d) Convert 6 DA to it's equivalent decimal.

14. Prove De Morgan's theorems.

15. Explain NAND as a universal logic gate.

16. Explain the working of a NAND latch with truth table.

17. Construct a D-flip-flop and explain its working.

18. Describe the decade counter using logic diagram.

19. Write short notes on epitaxial growth and photolithography.

20. Write a note on ripple counter.

SECTION C — (3 × 15 = 45 marks)

Answer any THREE questions.

21. (a) Convert :

(i) 48.125 to binary

(ii) $(11101.01)_2$ to hex

(iii) $(125)_8$ to decimal

(iv) 767_8 to hex

(b) Add 1101101_2 + 1011_2 and verify your answer in decimal system.

(c) Express 15 and 468 in BCD.

22. (a) Explain a full adder with a neat combinational logic circuit.

(b) Solve using a K-map

$Y = f(A,B,C,D) = \Sigma(0,1,2,4,5,10,11,14,15)$.

23. Explain master – slave J-K flip-flop and discuss its working using logic diagram and truth table.

24. Discuss the working of a shift left and shift right shift registers.

25. Explain how a diode, a transistor, a resistor and a capacitor can be constructed in a monolithic integrated circuit.

———

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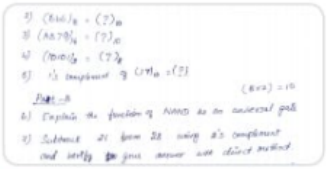
Instructions | Student work

Due 24 Feb 2021, 18:00

CIA I Digital Electronics

50 points

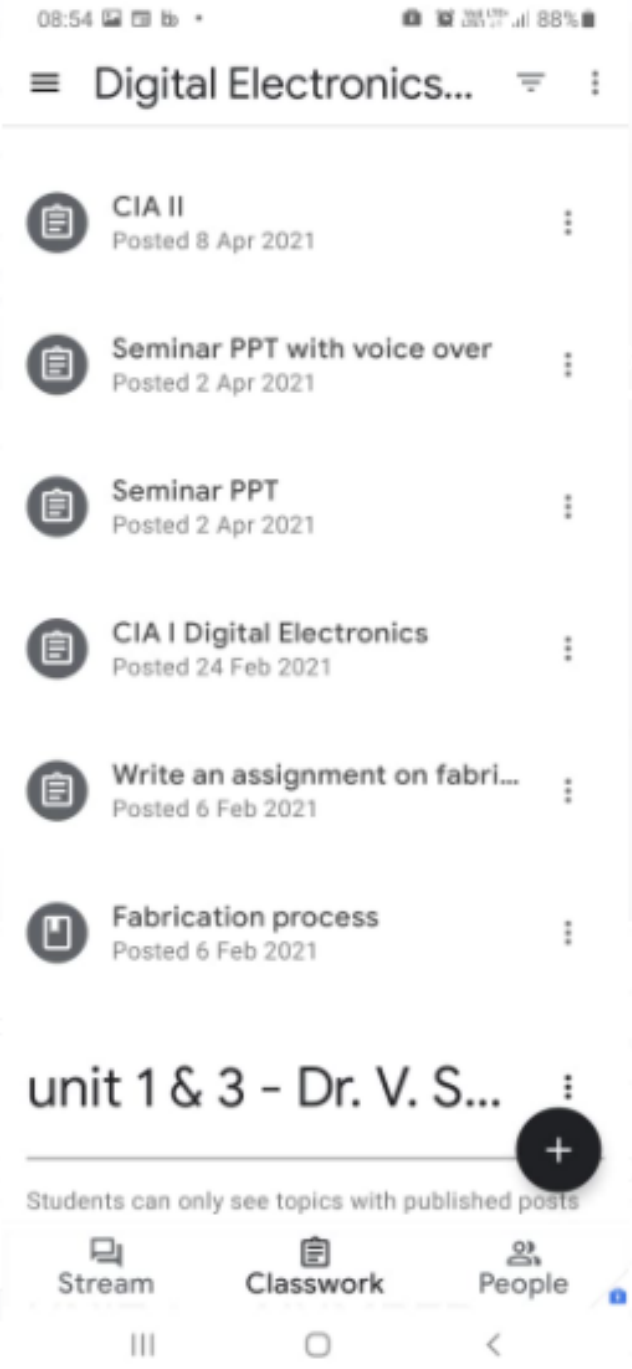
Attachments



Digital Electronics cia 1.pdf

Class comments

Add class comment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Digital Electronics...
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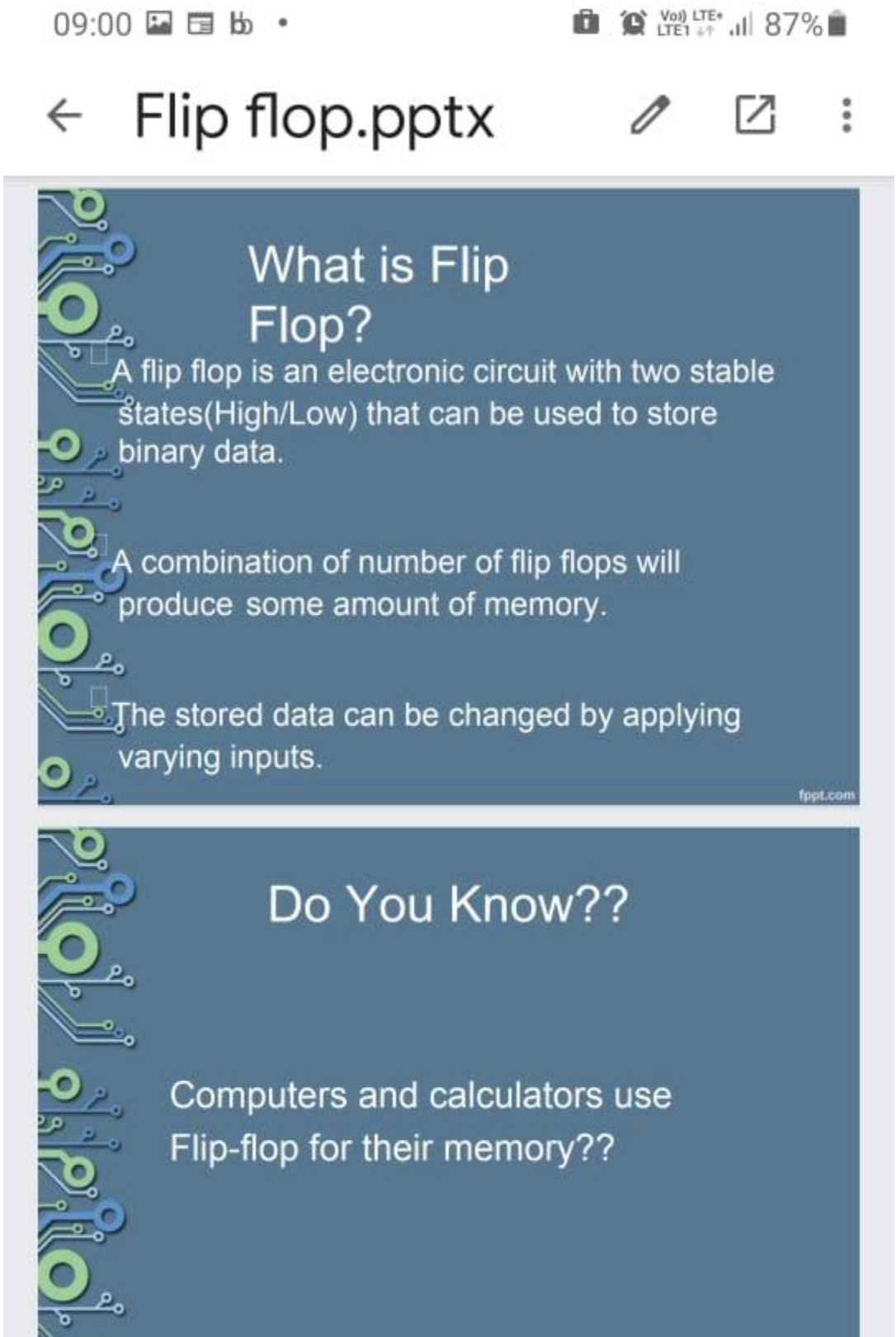
R-S FLIP FLOP...
R-S FLIP FLOPS???
R-S FLIP FLOP?
RS flip flops find uses in many applications in logic or digital electronic circuitry.
They provide a simple switching function whereby a pulse on one input line of the flip flop sets the circuit in one state.
Further pulses on this line have no effect until the R-S flip flop is reset.
This is accomplished by a pulse on the other input line.
In this way the R S flip flop is toggled between two states by pulses on different lines.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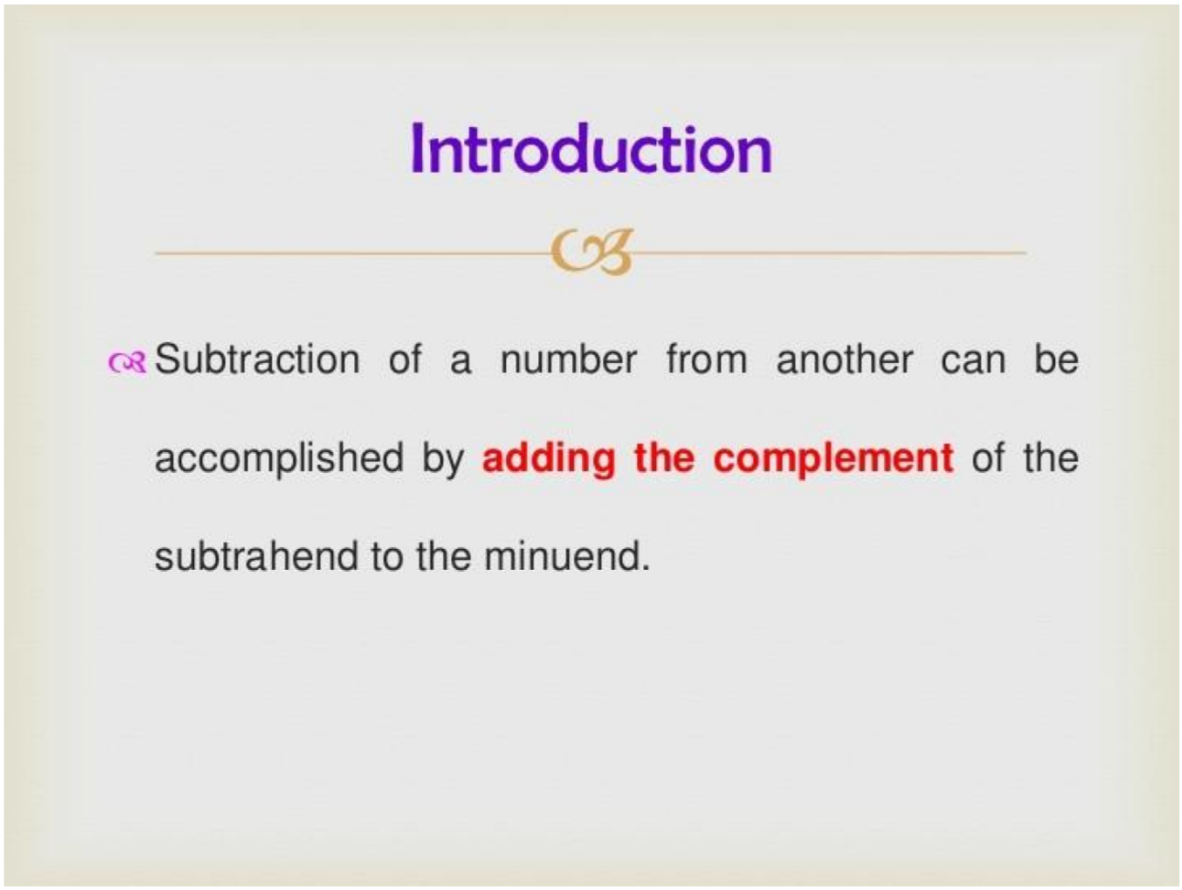
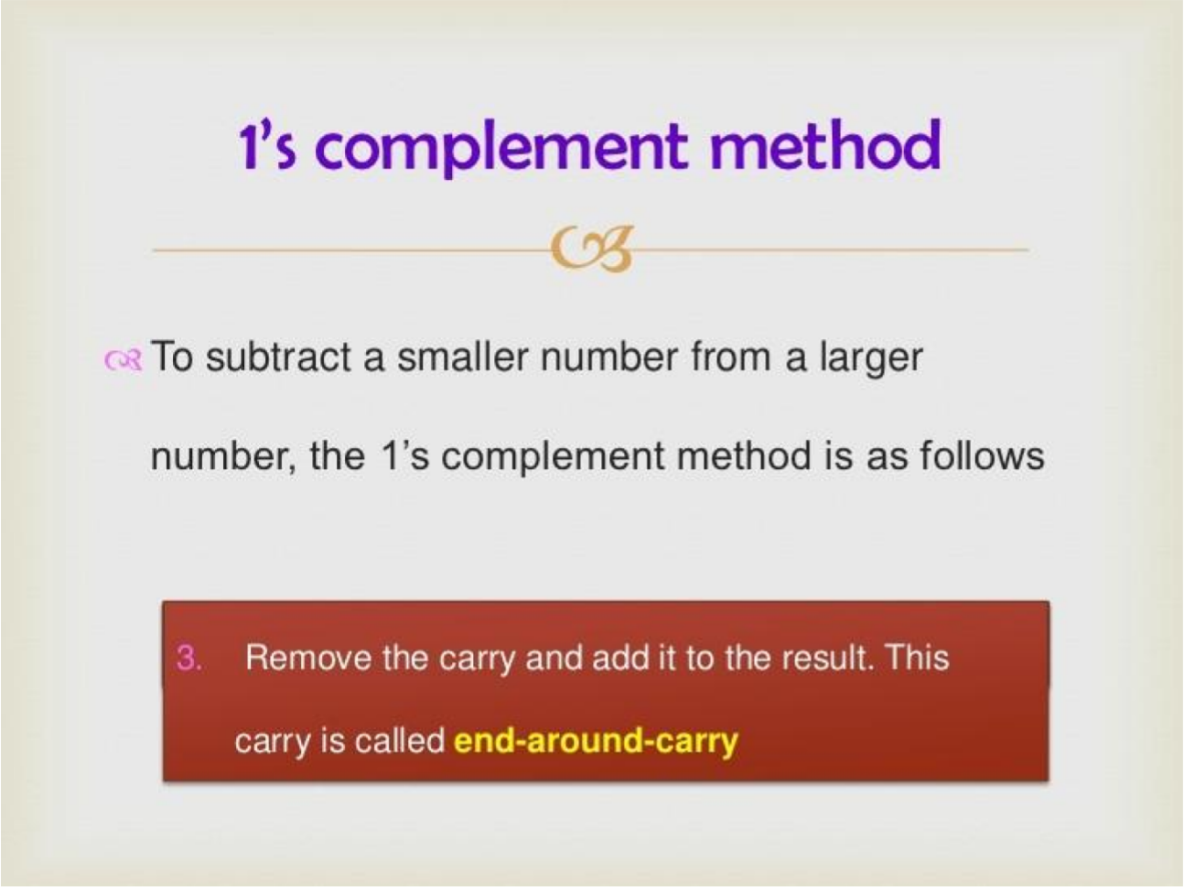
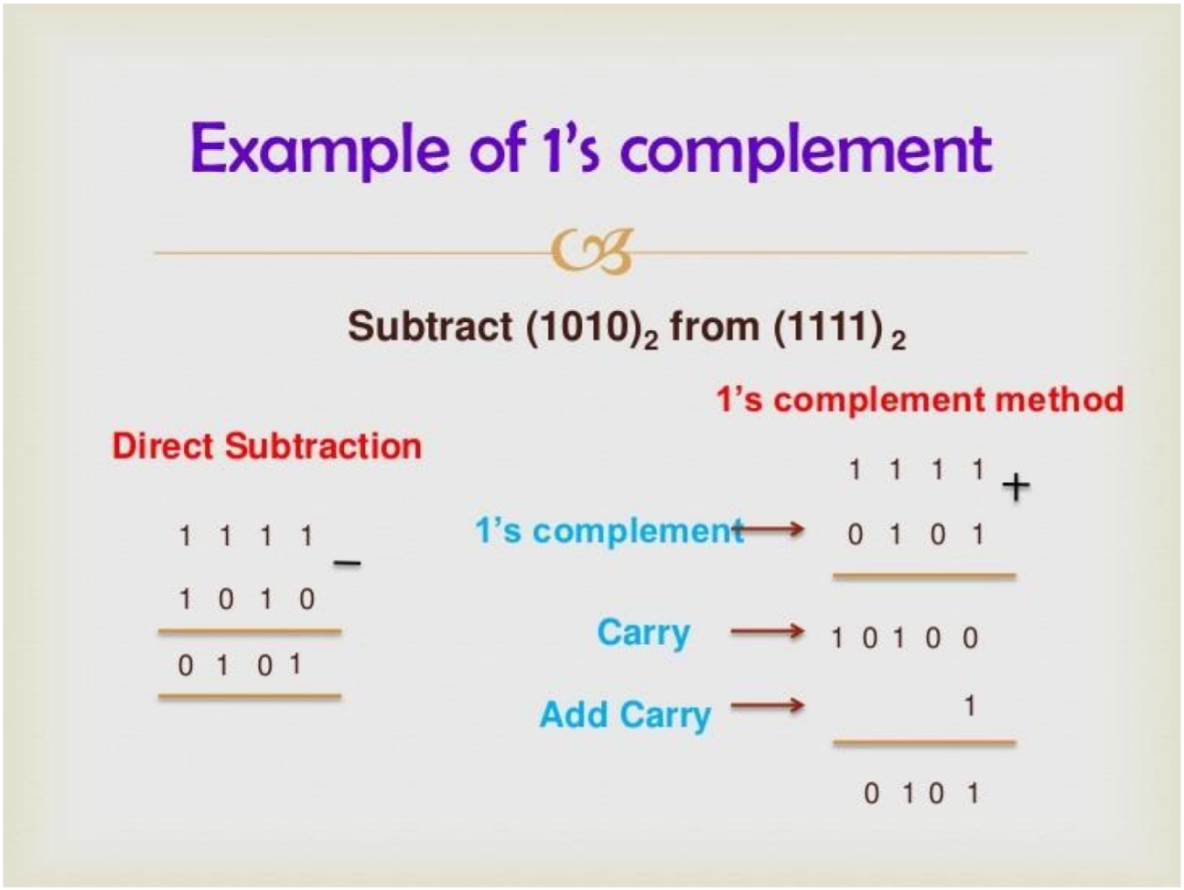
Flip flop.pptx
What is Flip Flop?
A flip flop is an electronic circuit with two stable states(High/Low) that can be used to store binary data.
A combination of number of flip flops will produce some amount of memory.
The stored data can be changed by applying varying inputs.
fppt.com
Do You Know??
Computers and calculators use Flip-flop for their memory??


Introduction
Subtraction of a number from another can be accomplished by adding the complement of the subtrahend to the minuend.


1's complement method
To subtract a smaller number from a larger number, the 1's complement method is as follows
3. Remove the carry and add it to the result. This carry is called end-around-carry


Example of 1's complement
Subtract (1010)2 from (1111)2
Direct Subtraction
1 1 1 1
1 0 1 0
0 1 0 1
1's complement method
1 1 1 1 +
1's complement → 0 1 0 1
Carry → 1 0 1 0 0
Add Carry → 1
0 1 0 1

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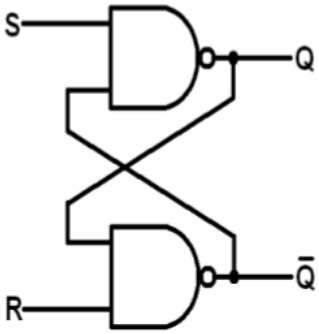
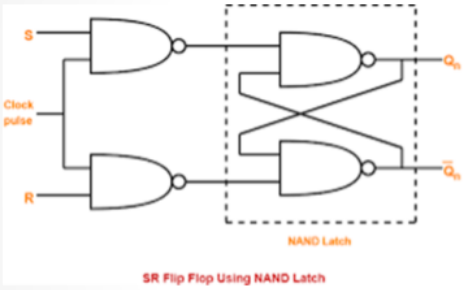
R-S FLIP FLOPS

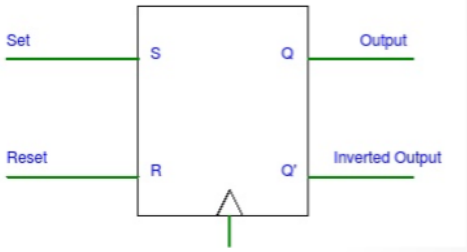


Sno	S	R	Q	Q'	State
1	1	0	1	0	Q is set to 1
2	1	1	1	0	No change
3	0	1	0	1	Q' is set to 1
4	1	1	0	1	No change
5	0	0	1	1	Invalid

USING NAND LATCH



SR Flip Flop Using NAND Latch



S	R	Q	MODE
0	0	Q	No Change
0	1	0	Reset
1	0	1	Set
1	1	?	Not

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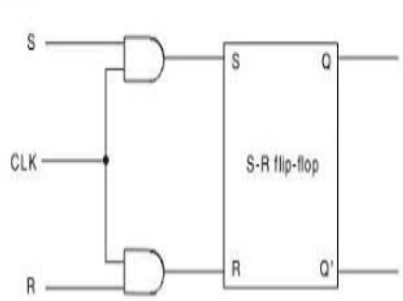
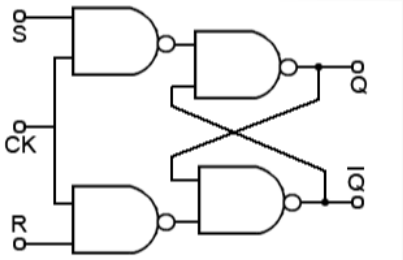
CLOCKED R-S FLIP FLOP





S_C	R_C	C	Q	$\bar{Q}$
x	x	0	no change	
0	0	1	no change	
0	1	1	0	1
1	0	1	1	0
1	1	1	undefined	
0	0	p	no change	
0	1	p	0	1
1	0	p	1	0
1	1	p	undefined	

Digital Electronics CIA-I (50 marks)

Part – A

(5 × 2 = 10)

1) $(14)_{10} = (?)_2$

2) $(666)_8 = (?)_{10}$

3) $(AB79)_{16} = (?)_{10}$

4) $(10101)_2 = (?)_8$

5) 1's complement of $(17)_{10} = (?)$.

(5 × 2) = 10

Part – B

6) Explain the function of NAND as an universal gate

7) Subtract 21 from 28 using 2's complement and verify your answer with direct method.

(15 × 2 = 30)

Part – C

8) What do you mean by Race around condition and how it can be solved in JK ff.

9) Explain in detail Right shift and Left Shift registers with neat diagram and Truth table.

SKN. SD PK

unit	E&EM	MP	SSP	SUBJECT BE	AE	ALLOCATION II	I	IIA	IA
1	PK	VR	VR	D.U	DS	DS	SKN	DU	DU
2	PK	VS	VR	SD	DS	SD	DU	SKN	SKN
3	VS	SD	VR	PK	DS	[illegible]	VR	PK	PK
4	VS	VS	SKN	SD	DS	DS	VR	PK	SKN
5	SKN	VS	SKN	SD	PK	D.U	DS	SD	D.U

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Approved Programme Outcome

&

Programme Specific Outcome

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PROGRAM OUTCOMES FOR UNDER GRADUATE

PO1	To undertake/ engage in employment oriented activities, development activities and allied activities particularly in response to the needs of the society.
PO2	To understand the needs and to acquire the required competencies to support local, regional and national development.
PO3	To develop conceptual understanding of the subject, problem solving and application of skills in practical orientation of the subjects.
PO4	To develop critical and analytical thinking.
PO5	To instill entrepreneurial spirits among the students along with ethics and business orientation.
PO6	To kindle curiosity to review upon the diverse environments for enhanced and innovative and best practices.
PO7	To engage in lifelong learning and continuing learning and enduring proficient progress

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PROGRAM OUTCOMES FOR POST GRADUATE

PO1	To attain suitable scientific knowledge and technical skills to realize, calibrate and develop innovative processes / skills for creation of inventive products which are beneficial to society.
PO2	To implement discipline, professionalism, team spirit, communication skills, social and ethical commitment in the post graduates in order to embellish leadership roles expediting perfection in different sector with a categorical professional distinctiveness, business savvy, international recognition and imperishable expansion
PO3	To be habituated with the emerging expanses of erudition and their applications in several domains of biological sciences and to enlighten the students of its relevance in forthcoming studies
PO4	To enhance the insight of research-oriented knowledge in conjunction with literature survey, design of experimental methodology, analysis and interpretation of results and draw valid conclusions.
PO5	To provoke entrepreneurship among the students along with strong ethics and communication skills

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DEPARTMENT OF BUSINESS ADMINISTRATION

PROGRAMME SECIFIC OUTCOMES

PSO 1: Students will be able to apply the knowledge of management concepts in business environment and describe the recent trends.

PSO2: Students will build proficiency in their area of specialization Marketing or Human Resource Management.

PSO3: Students undergo co-curricular activities to demonstrate practical knowledge in their domain area.

PSO4: Students acquire practical skills to identify & solve a problem/area of improvement.

PSO5: Students gain knowledge & skills to start their own enterprises, effectively contribute to the growth of the organization and/or pursue higher studies in management.

PSO6: Students will be able to identify the technology trends and its impact on business.

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PG & RESEARCH DEPARTMENT OF COMMERCE

PROGRAM SPECIFIC OUTCOMES - UG

PSO-1	Equip the Graduates to meet the industry expectations in the field of Accounting, Auditing, Legal Compliance, Marketing, Taxation, Banking and Financial Services
PSO-2	Students are being trained to adapt to Entrepreneurship and Engage in Entrepreneurial Ventures.
PSO-3	Graduates are skillfully trained in association with professional training institutions.
PSO-4	Students are inspired to pursue professional courses- CA, CMA, ACS, Law and Management Courses.

PROGRAM SPECIFIC OUTCOMES - PG

PSO-1	To enable the students to undertake teaching as a career after completion of the course
PSO-2	To cater to the industry expectations in the field of Accounting, Auditing, Legal Compliance, Marketing, Banking and financial Services, Taxation, Logistics & Supply Chain Management, Services Marketing, Security Analysis and Portfolio Management at Managerial Level
PSO-3	To inculcate Research Skills and pursue Ph.D in commerce and/ or to engage in the field of Research Analyst, Investment Manager and Portfolio Analyst.

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PG & RESEARCH DEPARTMENT OF ECONOMICS

Programme Specific Outcomes - UG

On successful completion of the programme the students will be able

PSO1 - To comprehend and critically analyse economic phenomena that happen at the National and Global level.

PSO2 - To apply the fundamental principles of economics for decision making at the professional and personal level.

PSO3 - To evaluate the economic eco system.

PSO4 - To compare theories of various economic thinkers, evaluate their relevance to present world situation and recommend modifications.

PSO5 - To weigh the strength and limitations of economic policies and formulate policies through data analysis.

PSO6 - To be able to pursue research in economics or in related disciplines and clear competitive examinations choosing economics as the main subject.

PSO7 - To obtain employment in financial sector, data analytics or turn into entrepreneurs.

Programme Specific Outcomes - PG

On successful completion of the programme the students will be able

PSO1 - To identify, understand and describe the various economic issues internally and internationally.

PSO2 - To explain and apply the underlying principles for economic decisions and policies at the micro and macro level.

PSO3 - To synthesize the functioning of the economic ecosystem.

PSO4 - To compare theories of various economic schools of thought and apprise their application to real world phenomenon.

PSO5 - To understand and analyze the potential and limits of various economic policies.

PSO6- To pursue a master's programme in Economics or a master's in an interdisciplinary subject like management or a professional programmee like CA,ACS.

PSO7- To obtain employment in the banking, financial services, insurance and HRM sectors.

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PG DEPARTMENT OF MATHEMATICS

PROGRAM SPECIFIC OUTCOMES (PSO's)

At the time of graduation, our post graduates would be able to:

PSO1	Create, Evaluate, analyze, interpret and effectively apply the basic laws, principles, phenomena, processes and mechanisms involved in the domain of Chemistry
PSO2	Apply the knowledge of chemistry in the domain of advanced research, education and perspective entrepreneurship
PSO3	Solve the complex problems in the field of chemical data analysis, scientific interpretation reaction mechanisms with an understanding on tools to be employed and analytical skills to be applied with proper insight on societal, environmental, safety, legal and cultural impacts of the solution
PSO4	Apply the knowledge of chemistry to appreciate, develop and test the theoretical aspects for applications in energy, environment, materials, medicines, and technology
PSO5	Use standard laboratory equipments, modern instrumentation and classical techniques to carry out experiments and develop skills to interpret and explain the validity of experimental data in terms of accuracy and underlying theory

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DEPARTMENT OF MICROBIOLOGY

PROGRAM SPECIFIC OUTCOMES

PSO1	To apply critical and contextual knowledge of Microbiology in inventive, energetic and inspiring milieu for design and development of new technology
PSO2	To reclaim, assess and practice microbiological data concerning current issues in the biosphere and pertinent to their day-to-day lives
PSO3	To comprehend the concepts of microbial infections in animals & plants and to implement the acquired knowledge for prevention and control of microbial diseases
PSO4	To capture knowledge in designing a route for the production of foods, therapeutic agents, metabolites, proteins and other beneficial products through micro-organisms
PSO5	To generate brilliant human resource, entailing with up-to-date requirements of biological sciences

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