



Estd. 1962
"A++" Accredited by
NAAC (2021)
With CGPA 3.52

SHIVAJI UNIVERSITY, KOLHAPUR - 416004,
MAHARASHTRA

PHONE:EPABX-2609000, www.unishivaji.ac.in, bos@unishivaji.ac.in

शिवाजी विद्यापीठ, कोल्हापूर - ४१६००४, महाराष्ट्र

दूरध्वनी-ईपीएबीएक्स -२६०९०००, अभ्यासमंडळे विभाग दुरध्वनी ०२३१-२६०९०९४



Ref./SU/BOS/Com & Mgt./ 214

Date : 10/04/2024

To,

The Principal
All Affiliated (Commerce & Management) Colleges/ Institutions,
Shivaji University, Kolhapur

Subject : Regarding syllabi of B. Com. Part-III (CBCS) Information Technology (IT) (Sem. V & VI) degree programme under the Faculty of Commerce & Management as per National Education Policy, 2020

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi of **B. Com. Part-III Information Technology (IT) (Sem. V & VI) (CBCS)** under the Faculty of Commerce & Management as per National Education Policy, 2020

This syllabi shall be implemented from the academic year **2024-2025** onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

(Dr. S. M. Kubal)

Dy. Registrar

Encl : As above

Copy to,

1. Dean, Faculty of Commerce & Management
2. Chairman, BOS under Faculty of Commerce & Management
3. Director, BOEE
4. Appointment Section
5. P. G. Admission Section
6. B. Com. Section
7. Affiliation Section (U.G./P.G.)
8. Computer Center/I.T.
9. Eligibility Section
10. Distance Education
11. P.G. Seminar Section

for information

for information and necessary action.

SHIVAJI UNIVERSITY, KOLHAPUR.



Estd. 1962

NAAC "A++" Grade

Faculty of Commerce and Management

Syllabus For

B. Com. Part III (CBCS)

Information Technology (IT) (Sem V & VI) NEP 2020

(To be implemented from June 2024 onwards)

(Subject to the modifications that will be made from time to time)

SHIVAJI UNIVERSITY, KOLHAPUR

National Education Policy (NEP 1.0)

BACHELOR OF COMMERCE (Information Technology)

Course Structure for Semester V and VI under Choice Based Credit System (CBCS)

Note:

- Exit option with Diploma in Commerce (IT). (With the completion of courses equal to 112 credits).

B. Com. (IT) Part-III (Sem-V)

Course Code	Title of Paper	Credit	Internal	External	Total
DSC15	Cost Accounting	4	20	80	100
DSC16	Computer Networking	4	20	80	100
DSC17	Java Programing	4	20	80	100
DSC18	Lab Course based on DSC17 & DSE2	4	--	100	100
DSE1	Bank Management	4	20	80	100
	Management of Insurance Services				
	Tourism and Hospitality Management				
DSE2	Advanced Excel	4	20	80	100
	Python Programing				
	Operating System with Linux				
SEC-V	Skill5	2	50	--	50
VEC-III	Constitution of India	--	--	--	--
		26	150	500	650

B. Com. (IT) Part-III (Sem-VI)

Course Code	Title of Paper	Credit	Internal	External	Total
DSC19	Entrepreneurship Development	4	20	80	100
DSC20	R Programing	4	20	80	100
DSC21	Software Engineering	4	20	80	100
DSC22	Project	4	20	80	100
DSE3	Organizational Behavior	4	20	80	100
	Management Accounting				
	Cooperative Management and Administration				
DSE4	Strategic IT Management	4	20	80	100
	E-Commerce				
	ERP				
DSC23	Lab Course based on DSC20	2	50	--	50
		26	170	480	650

Note:

- Exit option with Bachelors in Commerce (IT). (With the completion of courses equal to 164 credits)

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSC 15 Advanced Cost Accounting

Course Code: DSC 15	Advanced Cost Accounting	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1) To know the applications of marginal costing technique in decision making. 2) To understand the concept of standard costing and variance analysis. 3) To know the concept of budgets as well as budgetary control. 4) To understand application of cost accounting standards.		
Unit No.	Description	No. of Periods	
1	Marginal Costing: Meaning and Importance of Marginal Costing, Cost Volume Profit Analysis, Profit – Volume Ratio, Break Even Point, Margin of Safety, Break Even Point (BEP) Interpretation of BEP Analysis., Problems	15	
2	Standard Costing: Meaning, Objectives, Features; Types of Standards, Variance Analysis – Material Cost Variance, Labour Cost Variance and Overhead Variance and Interpretation of Variance Analysis, Problems	15	
3	Budgeting and Budgetary Control: Meaning, Objectives, Types of Budgets; Preparation of Cash Budget, Fixed and Flexible Budget; Budgetary Control System, Problems	15	
4	Cost Audit and Cost Accounting Standards: Meaning of cost audit, Features and benefits of cost audit, Legal Requirements, Objectives; Setting Process, List and Applicability of Cost Accounting Standards	15	
	Reference Books: 1) Practical Problems in Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi 2) Cost Accounting Methods and Problems – B. K. Bhar, Academic publishers Kolkatta 3) Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi 4)Principles and Practices of Costing - Lal and Nigam, Himalaya publishing house. 5) Cost Accounting - Lal and Nigam, Himalaya publishing house 6)Cost Management : Ravi M Kishore, Taxmann Publications		

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSC 16 Computer Networking

Course Code:DSC16	Computer Networking	Credit: 4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Understand the basics of Computer Network and Data Communication 2. Identify different components used in Computer Network 3. Understand Layered communication through Network models. 4. Identify different layers and their services in Computer Network. 		
Unit No	Descriptions	No of Lecture	
1	Basics of Computer Network and Data communication Computer Network: Definition, Advantages and disadvantages; Categories of Networks- LAN, WAN. MAN; Data Communications: Concept, Components-sender, receiver, message, transmission media; Data Representation, Data Flow-simplex, half-duplex, or full-duplex; Network Architecture-Client-Server and Peer to peer; Network Protocols: Concept, Services, Standards; Network Models: Overview of OSI model, TCP/IP model	15	
2	Physical and Data link Layer Physical layer: Transmission Media, Guided Media: Twisted-Pair Cable, Coaxial Cable, Fiber-Optic Cable; Unguided Media: Wireless, Radio Waves, Microwaves, Infrared; Transmission Modes: Parallel, Serial, Asynchronous, Synchronous; Data link layer: Design issues, Framing, Error detection and correction, Switching, Circuit switching- data gram and virtual switching, Packet Switching, Message Switching	15	
3	Network and Transport layer Network layer: Services: Concept of routing, Routing algorithm (shortest path, Flooding, distance vector), Congestion control algorithms (Leaking bucket, Token Bucket), Transport layer: connection oriented and connection less services, Protocols: TCP, UDP, Multiplexing, Frequency-Division Multiplexing: Wavelength, Division Multiplexing, Time-Division Multiplexing	15	
4	Session, Presentation layer and Application layer Session layer: Services: dialog management, synchronization, activity management, exception handling, Remote procedure calls, Presentation layer: Services: Translation, compression, Cryptography: symmetric key & asymmetric key cryptography concept, Application layer: Domain name system (DNS), Hypertext Transfer Protocol (HTTP), Simple Mail Transfer Protocol (SMTP), Telnet, File Transfer Protocol (FTP)	15	
	References:		

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

	<ol style="list-style-type: none">1. Computer Networking: A Top Down Approach Featuring in Internet by James F. Kurose & K. W. Ross2. Behrouz A. Forouzan- Data Communications And Networking - (4th edition) McGraw-Hill3. Tanenbaum A.S. “computer Network”, 3rd Edition, Prentice Hall of India4. Stalling W, “computer communication Network”.(4th edition). Prentice hall of India 1993	
--	---	--

B.Com. IT Part- III (Semester – V)
B. Com. (IT) Part-III (Sem-V) DSC 17 Java Programming

Course Code:DSC17	Java Programming	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Understand the basics of Java Programming. 2. Identify the Object Oriented Structure of Java Programming. 3. Implement the built in collections for data manipulation in Java programming. 4. Analyze the error handling and multithreading mechanism of Java programming 		
Unit No	Descriptions	No of Lecture	
1	Basics of Java Language: History of Java, Features of java, Java Virtual Machine (JVM), JDK Concept, Installation steps, Folder structure, Compilation and execution of java program, Java Keywords and Data types- Integer (byte, short, int, long), Floating point (Float, double), character (char), Boolean, Type conversion, Implicit Conversion, Explicit conversion, Operators- Assignment, Arithmetic, Bit-wise, Relational etc.	15	
2	Control structure and Classes: Branching statements- If, if ..else, if ..elseif and switch statement, Iterative statements- For loop, Do while, While loop, Break and continue statement Classes – definition. Syntax, field variable and local variables, Accessing private variables, methods, Use of methods , static variables and methods, method overloading and overriding, Difference between method overloading and overriding, This keyword, Destructor and constructor, Access control and concept of a package, class path and package hierarchy	15	
3	Inheritance and Collections: Concept and member access/visibility (Default, Public, Protected, Private, Private protected), Types- Single, multi-level, Hierarchical With example, Final and Super keyword, Interfaces and abstract classes. Collections- Vectors, methods of vector class, array list, Hash table and its methods, List, Iterator, stack.	15	
4	Exception Handling and Multithreading Exception Handling- Concept, types- Checked and unchecked, try and catch block, multiple catch, throws clause, finally clause. Multithreading- Concept, difference between process and thread, methods of thread class, runnable interface, isAlive() and join() methods, thread priority, synchronization, wait() and notify() methods, thread life cycle.	15	
References:			
<ol style="list-style-type: none"> 1. Programming with JAVA, A Primer by E Balagurusamy 2. Herbert Schildt, Java2: The Complete Reference, Tata McGraw-Hill 			

3. The Java Tutorials: <http://docs.oracle.com/javase/tutorial/>)
4. The Java Tutorials of Sun Microsystems Inc
5. Java Complete Reference by Patric Norton
6. Core Java Vol. I (Addison- Wesley) Sun Press ISBN – 981-405-861-0 2. Core Java Vol. II (Addison- Wesley) Sun Press ISBN – 981-4058-50-5
7. Thinking in Java, Bruce Eckel,, Addison – Wesley, ISBN: 9814035750
8. Java 2 Programming Black Book by Steven Holzner, Dream Tech Publication

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSC 18 Lab Course based on DSC17 and DSC2

Course Code:DSC18	Lab Course based on DSC17 and DSC2	Credits:4	Marks:100
			External:100
Course Outcomes:	After completion of this course students will be able to – 1. Design and implement the Java programs. 2. Implement the programs on Advanced Excel. 3. Demonstrate the programs in Python. 4. Design and implement programs using Shell Scripts.		
	Descriptions	No of Lecture	
	List Of Programs based on DSC17		
1	Java programs based on branching and looping statements.		
2	Java programs based Type Casting		
3	Java programs based on command line arguments		
4	Java programs based on constructors		
5	Java programs based on inheritance		
6	Java programs based on method overloading		
7	Java programs based on method overriding		
8	Java programs based on interfaces		
9	Java programs based on packages		
10	Java programs based on multithreading		
11	Java programs based on exception handling		

	List Of Programs based on DSC2(Advanced Excel)	
--	---	--

1. HLOOKUP Function – Exercise

Data

Employee ID	101	102	103	104	105	106	107
Employee Name	John Doe	Jane Smith	Bob Johnson	Sarah Lee	Tom Davis	David Martin	Rachel Green
Department	HR	Marketing	IT	Finance	HR	HR	Marketing
Salary	50000	55000	60000	65000	70000	90000	95000
Bonus	2000	2500	3000	3500	4000	6000	6500
Total Pay	52000	57500	63000	685000	74000	96000	101500

Q.1 What is the department of employee with ID 102?

Q.2 What is the salary of employee with ID 105?

Q.3 What is the total pay of employee with ID 107?

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

Prepare pivot table and pivot chart from following data and give the answers for following

SALES DATA

Date	Region	Product ID	Units	Channel	Interval
02-Jan-11	North	BS-TEMP	3	Promotional	Seasonal
02-Jan-11	West	FS-EBK	3	Promotional	Seasonal
03-Jan-11	North	BMC-COURSE	4	Promotional	Seasonal
03-Jan-11	West	FFCHARTS-TEMP	3	Affiliate	Off Season
04-Jan-11	West	FS-EBK	5	Affiliate	Off Season
06-Jan-11	West	FS-EBK	1	Promotional	Seasonal
06-Jan-11	North	BS-TEMP	4	Organic	Off Season
06-Jan-11	West	CFM-COURSE	3	Affiliate	Off Season
07-Jan-11	North	FFCHARTS-TEMP	4	Promotional	Off Season
08-Jan-11	North	RE-TEMP	4	Affiliate	Seasonal
09-Jan-11	West	RE-TEMP	4	Affiliate	Seasonal
10-Jan-11	North	BS-TEMP	3	Affiliate	Seasonal
12-Jan-11	West	CF-TEMP	1	Promotional	Seasonal
12-Jan-11	West	PFSCH-TEMP	4	Affiliate	Seasonal
13-Jan-11	West	FFCHARTS-TEMP	2	Affiliate	Seasonal
14-Jan-11	North	P&L-TEMP	1	Promotional	Seasonal
15-Jan-11	West	CF-TEMP	3	Promotional	Seasonal
17-Jan-11	North	R&M-EBK	1	Affiliate	Seasonal
17-Jan-11	North	BS-TEMP	4	Promotional	Seasonal

Q. 4. Show Maximum Selling Product Name.

Q. 5. Identify total units sold in each region

Q. 6. Identify the date with maximum units sold.

Q. 7. Goal Seek What-if Analysis

Guest Budget	
Reservation fee	\$230.00
Price per person	\$14.50
Number of guests	
Budget	\$230.00

Identify the tentative number of guests using Goal Seek Analysis using What-if analysis

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

Q. 8. Create a waterfall chart for following data

	A	B
1	Revenue	23,201
2	Cost of goods	(8,273)
3	Gross margin	14,928
4	Administrative expense	(1,151)
5	Net income	13,777

Exercise: Prepare the following structure using excel and do as instructed using VBA macros

	A	B	C	D
1	Favourite Cheeses Data			
2				
3	Cheese Type	Number of People	% People	
4				
5	Brie	9	9.0%	
6	Cheddar	23	23.0%	
7	Cheshire	7	7.0%	
8	Dairylea	9	9.0%	
9	Lancashire	8	8.0%	
10	Other	7	7.0%	
11	Red Leicester	14	14.0%	
12	Stilton	11	11.0%	
13	Wensleydale	12	12.0%	
14				

Q. 9 Highlight Columns A-C and centre the text within each column.

Q. 10 Change the Font of the main header to Bold and Size 14pt.

	List Of Programs based on DSC2(Python Programming)	
1	Program to display name and address.	
2	Program to Accept two number and display addition, subtraction, multiplication, division and modules.	
3	Program to calculate factorial of given number.	
4	Program to create a list of 100 numbers and separate those numbers in two different list one includes odd number other even.	
5	Program to display maximum number and minimum number from given list	
6	Program to demonstrate slicing.	
7	Program to demonstrate set operators(union ,intersection, minus)	
8	Program to print current date and time.	
9	Program to Today's Year, Month, and Date	
10	Program to convert Date to String	
11	Program to display the Calendar of a given month.	
12	Program to display calendar of the given year.	
13	Program to demonstrate File input.	
14	Program to demonstrate file output	
15	Program two add two numbers using GUI.	

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

	List Of Programs based on DSC2(Linux Operating System)	
1.	Demonstration of General Purpose	
2.	Write a shell script using if statements to check file exists or not.	
3.	Write a shell script to copy a file.	
4.	Write a shell script to check the given number is odd or even.	
5.	Write a shell script to check file permission.	
6.	Write a shell script to calculate the grade of student.	
7.	Write a shell script to find out given word contains vowel and also the entered vowel is small case or capital.	
8.	Write a shell script to display given year is leap year or not.	
9.	Write a shell script to greeting message according to time.	
10.	Write a shell script to print the Fibonacci series.	
11.	Write a shell script to print the numbers between 1 to10.	
12.	Write a shell script to read name, sex and marital status and display the same.	

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSE 1 Bank Management

Course Code: DSE 1	Bank Management	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1. Understand bank management system and practices 2. Understand the nature of Bank Management 3. Aware about recent technologies required for efficient Banking and Marketing. 4. Analyse legal provisions for customer services and banking frauds		
Unit No.	Description	No. of Periods	
1	Administrative Structure of the Banks 1.1. Administrative Structure of Commercial Bank- Committees and Departments 1.2. Administrative Structure of Cooperative Bank –Committees and Authorities 1.3. Important departments in the Head office of the Bank and its nature 1.4. Duties and Responsibilities of CEO of the Bank	15	
2	Bank Branch Management 2.1. Structure and Staffing Pattern of the Bank Branch 2.2. Control on Cash , Strong room and Lockers 2.3. Role and Responsibilities of Branch Manager 2.4. Importance and Techniques of Customer Relationship Management at branch	15	
3	Bank Management Practices 3.1. Allocation of duties and monitoring and Branch office 3.2. Target allocation and Planning – Deposit and Loans 3.3. Sources of Deposits - Factors influencing the mobilization of deposits 3.4. Fund Management – Structure and Functioning of Treasury Department of	15	
4	Bank Administration 4.1. Board of Directors-Commercial and Cooperative Banks – Responsibilities and Code of conduct 4.2. Bank Audit – Importance, Internal Audit System, Statutory Audit and its compliance 4.3. Information System Audit – Importance, Process and its compliance 4.4. Contains and Process of Preparation of Budget	15	
	Reference Books: 1. Francis Buttle (2004): Customer Relationship Management: Concepts and Tools, Customer relationship management: concepts and tools, Elsevier Butterworth Heinemann, Volume 13, 2004 2. George H. Hempel, Donald G. Simonson (2018). Bank Management: Text and Cases, Wiley, 2020 ISBN 0471410918 3. Kanhaiya Singh (2013). Commercial Bank Management, Tata McGraw-Hill Education, 2013 4. Peter S. Rose, Sylvia C. Hudgins (2008). Bank Management and Financial Services, McGraw-Hill Education, 2008 5. V.S.P. Rao (1999). Bank Management, Discovery Publishing House, 1999 ISBN 8171415105		

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSE 1 Management of Insurance Services

Course Code: DSE 1	Management of Insurance Services	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1) Understand the Insurance services with different product. 2) learn about different types of insurances and their procedures. 3) know about the risk management under different types of insurance services like-Life, General etc. 4) Analyse the Claim settlement procedure in life and General insurance services.		
Unit No.	Description	No. of Periods	
1	Introduction- Insurance - Definition – Insurable risk – Principles of insurance – Kinds of insurance – Costs and benefits of insurance – Pooling in insurance – Factors that limit the insurability of risk – Reinsurance Insurance business in India – Framework of insurance business – privatization of insurance business – Insurance Regulatory and Development Authority (IRDA) – Govt. Policy on insurance sector.	15	
2	Life Insurance - Meaning – The Evolution and Growth of Life Insurance – Basic Principles of Insurance – Life Insurance Organizations in India– Competition and Regulation of Life Insurance, Types of Life Insurance Policies –Computation of Premiums and Settlement of claims: Premium defined – Premium Calculation Including Rebates – Mode of Rebates – Large sum assured Rebates – Premium Loading – Rider Premiums – Computation of Benefits – Surrender value – Paid up value – Settlement of claims: Intimation procedure, documents and settlement procedures	15	
3	General Insurance: – The Evolution and Growth of General Insurance – Types of General Insurance – Fundamentals of General Insurance –Recent innovations. Organization and Management of General Insurance Companies – Regulatory Framework for General Insurance in India - Fire Insurance coverage – Consequential loss (fire) Insurance policies – Declaration policies, Marine Insurance: Marine Cargo policies – Motor Insurance: Types of policies – Third party Insurance – Comprehensive coverage – Conditions and Exclusions – premium.	15	
4	Underwriting and Settlement of Claims: Proposal forms – Cover notes –certificates of Insurance – Endorsements – Moral and Physical Hazards – Statistics – Spreading of Risks – Premium Rating –Premium Loading – Claim procedure – TPAs – Claim forms – Investigation / Assessment – Essential Claim Documents – Settlement Limitation, Arbitration, Loss Minimization and Salvage.	15	
	Reference Books: 1. Indian Institute of Insurance – IC 24 – Legal Aspects of Life Assurance K.C.Mishra and M.Bakshi , 2. LEGAL AND REGULATORY ASPECTS OF INSURANCE, M. N Srinivasan,		

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

	<p>3. PRINCIPLES OF INSURANCE LAW KSN Murthy & Dr KVS Sarma, 4.MODERN LAW OF INSURANCE' Vijayaraghavan. NC & Pradeep – General Insurance Claims through arbitration.</p> <p>5. George E. Rejda, PRINCIPLES OF RISK MANAGEMENT & INSURANCE, Pearson: Delhi. Harrington.</p> <p>6. Niehaus, RISK MANAGEMENT & INSURANCE, McGraw Hill: New York. 7. P.K. Gupta, INSURANCE & RISK MANAGEMENT, Himalaya Publishing House: Mumbai.</p>	
--	--	--

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSE 1 Tourism and Hospitality Management

Course Code: DSE 1	Tourism and Hospitality Management	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1) Understand basics of Tourism and hospitality industry. 2. Understand different sectors of Tourism industry 3. Learn the effective planning of Tour operations and Hotel service with food and beverages. 4. know about the need of organisation of event management for tourist.		
Unit No.	Description	No. of Periods	
1	INTRODUCTION TO TOURISM 1.1 Definition of Tourism, nature, importance, Components, objectives of the tourism 1.2 TOURISM TERMINOLOGY, Tourist excursionist definition, Concepts of tourism. Domestic & International tourism, tourism related terminologies, Types of tourism.	15	
2	Constituents of tourism (primary & secondary) 2.1 Eco Tourism, Mass tourism, Urban tourism, Rural tourism, Farm tourism, Cultural tourism, definition, characteristics. Culture & tourism, 2.2 THE RELATIONSHIP BETWEEN TOURISM PROJECTS, Relationship between tour operators, travel agents and hotels/restaurants-advantages in representing local. 2.3 Regional tourist organization-tourist attractions and its effect on volume of trade for hotels/restaurants. Integration of airlines, hotels, restaurants, and tour operators.	15	
3	HOTEL INDUSTRY PROMOTION STRATEGY 3.1 Concept, features, modification of product, failure of product. 3.2 Launching new product, product screening & branding. 3.3 Formulation of hotel product mix & travel mix. 3.4 TOURISM & HOTEL PROMOTION STRATEGY - Promote, selling the product, sales techniques, advertising selection of medium sales promotion. 3.5 Key tools of sales promotion in hotel & travel organization, TOURIST PACKAGES & HOTEL PRICING STRATEGY, Package tariffs, discount given, additional facilities given, room tariffs.	15	
4	ORGANISING EVENTS 4.1 Organizing the event, Purpose venue timing guest listing invitations 4.2 Food & drink room dressing equipment guest of honor -speakers - media - photographers - podium - exhibition., 4.3 ADVERTISING EVENTS - Media tools Media invitations - photo-calls - press releases - TV opportunities radio interviews, Promotional tools, Flyers -posters.	15	

	<p>Reference Books:</p> <ol style="list-style-type: none">1. Marketing for Hospitality & Tourism – Philip Kotler2. Tourism and Hospitality Marketing – S.M. Jha3. Tourism Transport & Travel Mgmt – by P.C. Sinha4. Theory of cookery by Krishna Arora,5. Food Production operations by Parvinder Balli6. Fundamentals of Tourism and Hotel Mgmt by Sudheer Andrews.7. Event Management by Dognais, 2014	
--	---	--

B.Com. IT Part- III (Semester – V)
B. Com. (IT) Part-III (Sem-V) DSE 2 Advanced Excel

Course Code:DSC2	Advanced Excel	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – 1] Mastery of Advanced Excel Functions 2] Proficiency in Data Analysis and Visualization 3] Competency in Pivot Tables and Power Query 4] Proficiency in Automation with Macros and VBA		
Unit No	Descriptions	No of Lecture	
1	Advanced Functions and Formulas: Understanding complex functions (e.g., VLOOKUP, HLOOKUP, INDEX, MATCH), Nested functions and array formulas, Logical and text functions Date and time functions, Statistical functions for data analysis, Error handling techniques	15	
2	Data Analysis and Visualization: Sorting and filtering data, Conditional formatting for data visualization, Advanced charting techniques (e.g., combo charts, waterfall charts), Sparklines for in-cell data visualization, Data validation and what-if analysis, Scenario Manager for multiple scenario analysis	15	
3	Pivot Tables and Power Query: Creating pivot tables for data summarization and analysis, Pivot table customization and formatting, Slicers and timelines for interactive filtering, Introduction to Power Query for data transformation, Combining data from multiple sources using Power Query, Data cleansing and shaping techniques	15	
4	Automation with Macros and VBA: Introduction to Excel Macros, Recording and editing macros, Writing and debugging VBA code, Automating repetitive tasks with macros, Creating user-defined functions (UDFs), Security considerations and best practices for macros	15	
	References: 1. "Excel 2019 Bible" by Michael Alexander and Richard Kusleika 2. "Advanced Excel Essentials" by Jordan Goldmeier and John Michaloudis 3. "Excel 2019 Power Programming with VBA" by Michael Alexander and Richard Kusleika 4. "Data Smart: Using Data Science to Transform Information into Insight" by John W. Foreman" 5. Dashboarding and Reporting with Power Pivot and Excel: How to Design and Create a Financial Dashboard with PowerPivot" by Kasper de Jonge		

B.Com. IT Part- III (Semester – V)
B. Com. (IT) Part-III (Sem-V) DSE 2 Python Programming

Course Code:DSC2	Python Programming	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Acquire programming skills in core Python. 2. Develop Python programs with conditionals and loops. 3. Understand advance datatypes in Python Programming. 4. Develop problem solving skills and their implementation through Python. 		
Unit No	Descriptions	No of Lecture	
1	INTRODUCTION TO PYTHON Installation, Spyder IDE, Python Interpreter, History Of Python, Python Features, Applications Of Python, Data Types, Types Of Operators, Operators Precedence, Expressions, Statements, Functions, Comment, Strings - Accessing Values In Strings, Updating Strings, Escape Characters, Built-In String Methods, User Input	15	
2	CONTROL FLOW AND LOOPS Conditionals: Boolean Values And Operators, Conditional (If), Alternative (If-Else) ,Chained Conditional (If-Elif-Else) Looping-While Loop, The Infinite Loop, For Loop, Iterating By Sequence Index, Using Else Statement With Loops, Nested Loops, Break, Continue & Pass Statement. Functions: Function With Arguments, Lambda Functions	15	
3	LISTS, TUPLES, DICTIONARIES AND SET Lists-Create a List, Get and Set Items ,Add and Remove Items, List Slices, Different List Methods TUPLES - Creation and Accessing Values, Updating Tuples, Deleting Tuple Elements, Basic Tuples Operations, Indexing, Slicing DICTIONARY- Accessing Values in Dictionary, Updating Dictionary, Delete Dictionary Elements, Properties of Dictionary Keys, Built-In Dictionary Functions and Methods. SETS -Concept of Sets, Creating, Initializing and Accessing the Elements, Sets Operation.	15	
4	MODULES, FILES I/O,GUI The Import Statement, Modules (Datetime, Calendar, Math Module) Files I/O: Text Files, Reading And Writing Files Introduction To GUI In Python	15	
	References: <ol style="list-style-type: none"> 1. R. Nageswara Rao, “Core Python Programming”, Dreamtech 2. Practical Programming: An introduction to Computer Science Using Python, second edition, Paul Gries, Jennifer Campbell, Jason Montojo, The Pragmatic Bookshelf. 3. Programming with python, A users Book, Michael Dawson, Cengage Learning 		

B.Com. IT Part- III (Semester – V)

B. Com. (IT) Part-III (Sem-V) DSE 2 Operating System with Linux

Course Code:DSC2	Operating System with Linux	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Understand the knowledge of Linux. 2. Design the File system and system calls. 3. Understand the Process creation and transitions. 4. Implement the shell scripting on the editors. 		
Unit No	Descriptions	No of Lecture	
1	Introduction to Linux: History of Linux • Architecture of Linux • Operating System Services • Shell • Types of Shell • Kernel • Login, Logout • General Purpose Utilities (banner, cal, date, calendar, who, tty, uname, password, lock, echo, tput, bc, clear, script, wc, head, tail, echo, test, expr)	15	
2	File System and System Calls: Basic file system management • Files Types, Boot block, Super block, Inod table • Storage and Accessibility of files • Finding Information of commands • File and Directory Commands • File and Directory Manipulation commands • File ownership and permission • Open, Read, Write, Close • Mounting and Un-mounting File System •	15	
3	Process Creation • Signal: Process States and Transitions • Process Termination • Awaiting Process Termination • Invoking Other Programs • Process Management (ps, kill, background processing, no hang up, SPOOL, job scheduling using at command)	15	
4	Editors and Shell Scripting: Types of editors • Modes of Operation 9 • Editing Text Files • Block Commands • Set Commands • Command Line Options • Choosing a Shell • Invoking the Shell Variables • Getting input from keyboard • Special Variables • Control Statement- Conditional • Iterative Statements • Regular expression	15	
	References: <ol style="list-style-type: none"> 1. Linux Commands- Instant Reference by Bryan PF affenberge 2. The Design of the Unix Operating System- Bach 3. Unix Shell Programming- Yashwant Kanetkar 4. Unix Concepts and Application – Sumitabhadas 1. Linux : The Complete Reference- Richard Peterson 		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSC 19 Entrepreneurship Development

Course Code:DSC19	Entrepreneurship Development	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: <ol style="list-style-type: none"> 1. Understand the theoretical knowledge of Entrepreneurship. 2. To develop Entrepreneurship qualities and skills. 3. To analyze the process and problems of Entrepreneurship development. 4. To learn about the project management in case of new entrepreneur. 		
Unit No.	Description	No. of Periods	
1	Entrepreneur: Concept-classification–Functions–Qualities of successful Entrepreneur– Concept of Intreprenuer and Netprenneur, challenges before entrepreneurs in modern Era.	15	
2	Entrepreneurship: Concept- Importance, Theories of Entrepreneurship (Josheph Schumpeter’s Innovation Theory, McClelland’s Theory of need of Achievement, Hegan’s Theory of status withdrawal) Entrepreneurship in service Industry- factors stimulating Entrepreneurship obstacles in Entrepreneurial growth.	15	
3	Entrepreneurship Development: Concept-objective-Process-Problems and measures in Entrepreneurship development– Institutional support for Entrepreneurship development Entrepreneurship Development Institute of India (EDI) Ahmadabad, National Institutes of Entrepreneurship and small Business Development (NIESBUD), New Delhi, National Institutes of small Industry Extension Training (NISJET), Hyderabad, small Industries Development organizations (SIDO), small Industry Development Bank of India (SIDBI), Technical consultancy organization (TCOs), District Industry centres(DIC).	15	
4	Project Management: Concept of project-classification of project-stages of project management – Reasons for failure for project. Project for call centre, Retail stores, Hotel, Hospital, Dairy.	15	
	Reference Books <ol style="list-style-type: none"> 1. Dynamics of Entrepreneurship Development & Management –By Vasant Desai 2. Entrepreneurship Development in India –By C.B.Gupta and N.P.Srinivasan 3. Entrepreneurial Development –By S. S. Khanka 4. Entrepreneurial Development –By Godron E.and Natarajan K. 5. Udyojakata- By Prabhakar Deshmukh. 6. Project Preparation Appraisal, Implementation- By Prasanna Chandra. 7. Entrepreneurship Development –By S.C. Gupta & Arun Mittal. B.Com. Part-III (Information Technology) (Entire)		

B.Com. IT Part- III (Semester – VI)
B. Com. (IT) Part-III (Sem-VI) DSC 20 R Programming

Course Code:DSC20	R Programming	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Understand the fundamental syntax of R through practice exercises. 2. Understand the control statements and functions in R. 3. Analyze a data set in R and represent findings using the appropriate R packages. 4. Learn R programming skills for effective data analysis and visualization. 		
Unit No	Descriptions	No of Lecture	
1	Introduction to R: Installation of R & RStudio, Features of R, Variables, Constants, Operators in R, Datatypes and R Objects, Accepting Input, Important Built-in functions, Creating Vectors, Accessing elements of a Vector, Operations on Vectors, Vector Arithmetic.	15	
2	Control statements and functions: Control statements: if...else, if else() function, switch() function, repeat loop, while loop, for loop, break statement, next statement, Formal and Actual arguments, Named arguments, Global and local variables, Argument and lazy evaluation of functions, Recursive functions. Creating strings, paste(), Formatting numbers and string using format(), String manipulation	15	
3	Matrices, Arrays and Data frames: Creating matrices, Accessing elements of a Matrix, Operations on Matrices, Matrix transpose, Creating arrays, Accessing array elements, Calculations across array elements, Introduction to data frames and basic operations on data frames.	15	
4	Introduction to Data Visualization: Data visualization basics, Installing and loading packages, importing data, Working with missing data, Extracting a subset of a data frame, Scatter Plot, Box Plot, Bar plot, Plotting categorical data, Stacked bar plot, Histogram, plot() function and line plot, pie chart / 3D pie chart.	15	
	References: <ol style="list-style-type: none"> 1. R Programming for Data Science Peng, R.D. (2020) Bookdown: New York. 2. An Introduction to Statistical Learning by Gareth James (2017) Publisher: Springer 3. R for Data Science by Garrett Golemund and Hadley Wickham, Publisher: O'Reilly Media, Inc. 2017. 4. R Fundamentals by Sosulski, K. (2018) Bookdown: New York. 5. Discovering Statistics Using R by Andy P. Field, SAGE Publications. 		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSC 21 Software Engineering

Course Code:DSC21	Software Engineering	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – <ol style="list-style-type: none"> 1. Understand life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software. 2. Develop SRS document. 3. Use of analysis and design tools for system development. 4. Apply software engineering concepts in software development to develop quality software. 		
Unit No	Descriptions	No of Lecture	
1	Introduction to Software Engineering: Introduction to system, Characteristics of system, types of system, Programs Software, Definition of Software Engineering, importance, principles of software engineering, Difference between software engineering and software programming, Members involved in software development. SDLC (General software development life cycle with all phases), Software process models: Overview of software models (Waterfall, Prototyping and Spiral model).	15	
2	Requirement Engineering: What is Requirement Engineering, Types of requirements, Requirement elicitation techniques- Traditional methods and Modern methods, Verification and validation process, Formal technical review, Principles of Requirement Specification, Software Requirement Specification document, Characteristics of good SRS.	15	
3	Analysis and System Design tools: Data Flow Diagrams (DFD), Data Dictionary, Entity-Relationship Diagrams, Decision Tree and Decision Table. Input and Output Design- I/O design considerations, Structured Chart, HIPO chart, Characteristics of Good Design, CASE STUDIES – Library Management System, Inventory Management System.	15	
4	Software Testing and Software Quality Assurance Software Testing: Definition, Test characteristics, Types of testing: Black-Box Testing, White-Box Testing, Unit testing, Integration testing, Validation testing, System testing. Software Quality Assurance: Introduction- Quality, and its attributes, quality control, quality assurance, cost of quality, SQA activities, SQA plan.	15	
	References: 1. Software Engineering a Practitioners Approach by S. Pressman & Roger, Seventh Edition, McGraw Hill International Edition.		

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

	<ol style="list-style-type: none">2. Software Engineering by Sommerville, , 7th edition, Pearson Publication3. Software Engineering by K.K. Aggarwal & Yogesh Singh, New Age International Publishers.4. Web sites of NPTEL / Swayam5. www. edx.com	
--	---	--

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSC 22 Project

DSC22 Project

A) Guidelines for Project Work :

Number of Copies: The student should submit two Hard-bound copies of the Project Report.

Acceptance/Rejection of Project Report:

The student must submit an outline of the project report to the college for approval. The college holds the right to accept the project or suggest modifications for resubmission. Only on acceptance of draft project report, the student should make the final copies.

Format of the Project Report:

The student must adhere strictly to the following format for the submission of the Project Report.

a. Paper:

The Report shall be typed on white paper, A4 size, for the final submission. The Report to be submitted to the must be original and subsequent copies may be photocopied on any paper.

b. Typing:

The typing shall be of standard letter size, 1.5 spaced and on one side of the paper only. (Normal text should have Arial Font size 11 or 12. Headings can have bigger size).

c. Margins:

The typing must be done in the following margins:

Left -----1.5 inch, Right ----- 1 inch

Top ----- 1 inch, Bottom ----- 1 inch

d. Front Cover:

The front cover should contain the following details:

TOP : The title in block capitals of 6mm to 15mm letters.

CENTRE: Full name in block capitals of 6mm to 10mm letters.

BOTTOM: Name of the University, Course, Year of submission -all in block capitals of 6mm to 10mm letters on separate lines with proper spacing and centering.

f. Blank Sheets:

At the beginning and end of the report, two white black bound papers should be provided, one for the purpose of binding and other to be left blank.

Appendix - 2

- Input Design
- Report Design
- Implementation
- Testing

B) Standard Project Report Documentation Format

- a) Covering Page
- b) Institute/College certificate
- c) Guide Certificate
- d) Student declaration
- e) Acknowledgement
- f) Index (Chapter Scheme)
- g) Chapter Scheme (Index)
 - 1) Introduction to Project
 - Introduction
 - Existing System
 - Need and scope of System
 - Organization Profile
 - 2) Proposed System
 - Objectives
 - Requirement Engineering.
 - Requirement Gathering.
 - SRS
 - 3) System Diagrams
 - DFD
 - ERD
 - UML(if applicable)
- System Requirements
 - Hardware
 - Software
- 4) System Design
 - Database Design
 - Input Design
 - Output Design
- 5) User Guideline
 - Installation process
- 6) Source Code
- 7) Outputs-
Input screens and Reports (with valid Data)
- 7) Conclusion and Suggestions
 - Conclusion and suggestions
 - Future enhancement

Bibliography:

Note : Minimum 5 reports are essential as outputs of the project work done by the student..

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 3 ORGANISATION BEHAVIOUR

Course Code: DSE 3	ORGANISATION BEHAVIOUR	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1. Describe theoretical concepts of organizational Behaviour. 2. Classify types of personalities Summarize types of conflicts. 3. Summarize adoption of organizational culture. 4. Understand the Organizational culture and quality of work life.		
Unit No.	Description	No. of Periods	
1	Introduction to Organizational Behaviour: Concept, significance, Nature and scope of OB, contributing disciplines to OB, relationship between management and organizational Behaviour, Ethical issues in OB, Historical Development of OB, Models of OB.	15	
2	Individual and Group Behaviour: A. Foundations of Individual Behaviour – Personality (Concepts, Determinants and types), Perception (meaning, process, factors affecting perception), Attitude (Concept, formation and types), Values (Concept, types and formation) and Job Satisfaction (Concept, Determinants and Measurements), Learning (Meaning, determinants, principles) B. Foundations of Group Behaviour: Definition and importance of group, Types of group, Process of group development, Group Behaviour (Norms, Cohesion, Role intergroup Conflicts), Group performance factors, Quality Circle and Work Teams.	15	
3	Individual and Group Behaviour: A. Foundations of Individual Behaviour – Personality (Concepts, Determinants and types), Perception (meaning, process, factors affecting perception), Attitude (Concept, formation and types), Values (Concept, types and formation) and Job Satisfaction (Concept, Determinants and Measurements), Learning (Meaning, determinants, principles) B. Foundations of Group Behaviour: Definition and importance of group, Types of group, Process of group development, Group Behaviour (Norms, Cohesion, Role intergroup Conflicts), Group performance factors, Quality Circle and Work Teams.	15	
4	Organizational Culture and Work Life Balance: A. Organizational culture: Definition, types, functions, creating, sustaining and changing culture a culture. B. Quality of Work life: concept, constituents of QWL, QWL in Indian context. Managing work life conflicts in organizations.	15	
	Reference Books: 1. Management and Organizational Behaviour – P. Subbarao 2. Organizational Behaviour – Keith davis 3. Organizational Behaviour – Stephen Ronnins 4. Organizational Behaviour – Dr. Anjali Ghanekar 5. Organizational Behaviour – Dr. C.B.Gupta 6. Organizational Behaviour – Dr. S.S.Khanka 7. Organizational Behaviour – Stephen Robbins & Timothy Judge, 15th Edition, Pearson, Prentice Hall.		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 3 Management Accounting

Course Code: DSE 3	Management Accounting	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After studying this course, students shall be able to: 1. Understand the fundamentals of Management Accounting. 2. Explain the analysis and interpretation of financial statements. 3. Demonstrate the estimation of working capital requirements. 4. Practice to analyze the changes in financial position.		
Unit No.	Description	No. of Periods	
1	Management Accounting -An Introduction: Nature & Scope, Financial Accounting vs. Cost Accounting vs. Management Accounting; Functions, Techniques, Principles; Scope; Utility; Limitations; Essentials for Success. Management Accountant: Position, Role and Responsibility;	15	
2	Working capital management: Meaning, Significance, type and determinants of working Operating cycle and estimation of working capital, requirement, Sources and application of working capital. Calculation of working capital	15	
3	Cash Flow Statement: Meaning of Cash Flow Statement, Utility of Cash Flow Statement and Preparation of Cash Flow Statement(AS-3), Difference between Funds Flow Statement and Cash Flow Statement	15	
4	Analysis of Financial Statements: Meaning and Types of Financial Statements, Analysis of financial statements: Comparative Statement Analysis, Common-size Statement Analysis, Trend Analysis and Ratio Analysis, Classification of Ratios, Advantages and Limitations of Accounting ratios	15	
	Reference Books: <ol style="list-style-type: none"> 1. Khan M.Y. and Jain P.K. Management accounting, Tata McGraw Hill, New Delhi 2. Charles T.Horngren, Introduction to management Accounting, Prentice Hall of India, New Delhi. 3. Horngren, Charles T. George Foster and Shrikant M. Daliar. 4. Cost Accounting : A Managerial Emphasis, Prentice Hall, Delhi 5. Pandey I. M.: Management Accounting, Vikas Publication, Delhi. 6. Budgeting, Profit Planning and control, Prentice Hall, New Delhi. 7. Maheshwari: Principles of Management Accounting 		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 3 COOPERATIVE MANAGEMENT AND ADMINISTRATION

Course Code: DSE 3	Cooperative Management and Administration	Credit: 4	Marks: 100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	At the end of this course, student will be able to: 1) Understand the basic concepts of cooperation and types of cooperatives. 2) Explain cooperative development models 3) Demonstrate cooperative development in abroad. 4) Analyze cooperative development in India and abroad		
Unit No.	Description	No. of Periods	
1	Concept of Cooperation: Definition – Cooperative Thought Process; History of cooperation, Principles of cooperation, Need and significance of cooperation Types of cooperatives: · 1) Retail Cooperatives · 2) Worker Cooperatives · 3) Producer Cooperatives · 4) Service Cooperatives · 5) Housing Cooperatives	15	
2	Cooperative Development Models: Self help and State aided Models – Integrated and Federal models – Unitary model – New Generation Cooperatives – Cooperation as a Social Movement – Socio-Cultural factors influencing cooperation.	15	
3	Cooperative Development in abroad: Working profile and problems of Consumers Cooperatives in Sweden and U.K; Cooperative Banking in Germany & Italy; milk producer cooperatives in Denmark; Cooperative farming societies in Israel; Industrial Cooperatives in Japan; Agricultural marketing Cooperatives in Philippines ; Reasons for their success in their performance and contribution to their national economy.	15	
4	Cooperative Development in India: Pre-independence period- Agricultural Cooperative credit societies Act-1904 – Cooperative Societies Act 1912- Sir Edward Maclagan Committee 1916 – Central Banking Enquiry Committee 1928- Cooperative planning committee 1945. Unit 5: Cooperative Development in India: Post –independence period- All India Rural Credit Survey Committee 1954- All India Rural Credit Review Committee 1969 – Schemes and programmes for cooperative Development during Plan Periods - recommendations of CRAFICARD-Kushroo committee on Agricultural credit Review 1980 – Assessment of cooperative development prior to globalization – Report of Task Force on Cooperative Credit (St structure) 2004.	15	
	Reference Books: 1. Dubhashi, P.R, Principles and Philosophy of Cooperation, VAMNICOM, Pune, 1970 2. Hajela T.N., Principles, Problems and Practices of Cooperation, Konark Publishers, New Delhi, 2000. 3. Ian Mac Pherson, Cooperative Principles for the 21st Century, ICA, Geneva 1995.		

	<ol style="list-style-type: none">4. Krishnasamy O.R and Kulandaiswamy, V., Cooperation: Concept and Theory, Arudra Academy, Coimbatore,20005. Krishnasamy O.R., Fundamentals of Cooperation, S.Chand& Co., New Delhi,19856. Mathur B.S., Cooperation in India, SahithyaBhavan Publishers, Agra, 20007. Paul Lambert, Studies in social Philosophy of Cooperation, Cooperative Union Ltd., Manchester,1963. 8. Plunkett Foundation , The World of Cooperative Enterprises, 1996.8. Puri, S.S. Ends and Means of Cooperation, NCUI, New Delhi, 1979.9. Rajagopalan R., Rediscovering Cooperation (Vol.I,II,III), IRMA, Anand 1996.10. Ravichandran K and S. Nakkiran (2009), Cooperation: Theory and Practice, Abijit publication, New Delhi.	
--	--	--

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 4 Strategic IT Management

Course Code:DSC4	Strategic IT Management	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – 1. Understand business strategy and IT alignment. 2. Develop plan for IT strategy for any organization. 3. Understand IT sourcing strategy for the organization. 4. Understand and develop IT Governance framework for IT enabled organizations.		
Unit No	Descriptions	No of Lecture	
1	Business Strategy and IT: Introduction of business strategy-Challenges and opportunities, establishing principles. IT Strategy- Applications strategy, Data and Technology management strategy for IT, strategy for programs, project and portfolio management, IT service management strategy. Developing IT strategy for competitive advantage. Business and IT alignment, challenges of IT and business strategy alignment, Three-D framework for business and IT alignment, Achieving business and IT alignment, tools for business and IT alignment. Emerging trends in IT to device business strategies- web related technologies, mobile technologies.	15	
2	Strategic IT Planning (SITP): Introduction of strategic plan, process, difficulties in developing and executing SITP, SITP approaches, content of SITP, Resource planning, Change management issues in SITP development and implementation, monitoring and measuring SITP success. Strategies for managing IT Infrastructure, outsourcing strategies, guideline for outsourcing decisions.	15	
3	IT Sourcing Strategy: Introduction, concept of outsourcing, need of outsourcing, risks in outsourcing, minimizing risks, strategic vs, generic sourcing, variants of outsourcing, business process outsourcing, best-of breed consortium, insourcing, outsourcing joint venture, how to succeed with outsourcing, contract management and governance, managing outsourcing transaction.	15	
4	IT Governance: Definition and Purpose of IT Governance, Areas of IT Governance- strategic alignment, Value Delivery, Risk Management, Resource management, Performance measurement. Challenges in IT Governance. IT Governance Framework: concept, need of IT governance framework, Information criteria, Integrated IT Governance Framework –COBIT.	15	
	References: 1. IT strategy and Management by Sanjiva Dubey, Forth Edition, PHI Learning Private Limited, Delhi, 2018 2. ITGovernance, ,PeterWeill and Jeanne WRoss, Harward Business School Press 3.StrategiesforInformationTechnologyGovernance,WimVanGrembrgen,Ide aGr oupPublishing 4. IT Governance, Martin Frohlich and Kart Glasher, Gabler Publication 5. IT Governance, A Practical Guide by Christopher BGillies		

Bachelor of Commerce (Information Technology) Part- III Syllabus as per NEP 1.0

	<p>6. IT Governance: How Top managers manages IT decisions right for superior results--- by Peter Weill, Harward Business School Press</p> <p>7. Corporate Information strategy and Management by L M Applegate</p> <p>8. Information Technology Management by Raner, Potter and Turban.</p> <p>9. Strategic Technology Management by Betz</p> <p><u>Research Journals:</u></p> <p>1. The Journal of Strategic Information Systems</p> <p>2. International Journal of Strategic Information Technology and Applications (IJSITA)</p>	
--	--	--

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 4 E-Commerce

Course Code:DSC4	E-Commerce	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – 1. Understand Concept of E-commerce 2. Implement the technical Infrastructure for E-commerce. 3. Understand the concept of E-security. 4. Understand the concepts of Legal, ethical and Societal Issues of E-commerce.		
Unit No	Descriptions	No of Lecture	
1	Introduction to E-Commerce: Meaning and definition of E-Commerce and E-Business, characteristics and significance of E-Commerce. Key drivers of E-Commerce. Advantages and disadvantages of E-Commerce. Difference between Traditional and E-Commerce. Scope of E-Commerce - Macro Environmental perspective and transacting partner wise.	15	
2	Technical Infrastructure for E-Commerce: a) Network Infrastructure b) Multimedia- content and network publishing infrastructure. c) Messaging and information distribution Infrastructure d) Common business service Infrastructure e) Infrastructure for E-Commerce in India	15	
3	E-Commerce Security- Concept, need and significance of E-Commerce Security. Basic-security issues Types of forests and attacks Non -Technical and Technical attacks. Managing E-Commerce Security.	15	
4	Legal, Ethical and Societal Issues of E-Commerce: Legal Issues: Privacy, Intellectual property rights, patents, Electron contracts. Ethical Issues: Channel conflict, Internal conflicts, Dis-intermediation, Trust, Non work related use of internet and code of ethics. Societal Issues: Digital divide, Education, public safety and criminal justice, Health aspects and virtual communities.Future of E-Commerce in India	15	
	References: 1. Introduction to E-Commerce- SAGE Publication- New Delhi 2. Electronic Commerce -2004 (A managerial Perspective) Efraim Turban and others- PEARSON publication 3. E-Commerce : Kamlesh Bajaj & Debjani Nag.(TMH) 4. E-Commerce: S. Jaiswal 5. E-Commerce A Managers Guide. by Ravi Kalakota 6. E-Commerce By Kenneth C Laudon and Carol Guercio Traver, Pearson Edn. 7. E-Commerce By C.S.V Murthy, Himalaya Publication 8. E-Commerce Fundamentals and applications by Henry Chan, Raymond Lee, Tharan Dillon and Elizabeth Chang.		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 4 Enterprise Resource Planning

Course Code: DSC4	Enterprise Resource Planning	Credits:4	Marks:100
	Total Hours of Teaching: 60	External: 80	Internal: 20
Course Outcomes:	After completion of this course students will be able to – 1. Understand the concept of ERP and different ERP technologies 2. Understand ERP implementation life cycle. 3. Describe the ERP models. 4. Learn process model and apply it in the re-design of a process & understand the important role it plays in the development of a BPR.		
Unit No	Descriptions	No of Lecture	
1	Introduction to ERP: Defining ERP, Origin and Need for an ERP System, Evolution of ERP, Benefits of an ERP System, Reasons for the Growth of ERP Market, ERP models, Subsystems of ERP models. ERP related technologies-Business Intelligence (BI), Data Warehousing, Data Mining, On-Line Analytical Processing (OLAP), Geographical Information System (GIS).	15	
2	ERP Implementation: Prerequisites of ERP implementation, ERP implementation strategies, Phases in ERP implementation, ERP vendor selection criteria, Role of consultant in ERP implementation, Role of Users in ERP implementation, Role of Top management in ERP implementation	15	
3	ERP Business Models- Finance, Manufacturing (Production), Human Resources, Quality Management, Marketing, Sales, Distribution and service.	15	
4	Introduction to BPR Meaning, definition of BPR, History & development of BPR, Need of BPR, Concept of process, process management, process model Phases in BPR., Role of IT in BPR,BPR and ERP.	15	
	Reference Books: 1. Enterprise Resource Planning, Alexis Leon, (Second Edition), Tata McGraw Hill Education Private Limited, 2011 2.ERP DEMYSTIFIED, Alexis Leon, (Second Edition), Tata McGraw Hill Education Private Limited, 2008 3. ERP Plak, CarolA., Eli Schragenheim (St. LuciePress NY) 4. Reengineering Corporation – Mammer, Micheal , JamisChambey 5. Business Process Reengineering – Jayaraman M.S.(TMG) 6. Best Practices in Reengineering – Carr D.K. JohnansonH.J.(MGH) 7. Business Process Reengineering: Myth & Reality – Coulson ThomasC. 8. The Essence of Business Process Reengineering Peppard J,RowlandP.(PH) Suggested research Journals: 1. Business Process Reengineering & Management Journals 2. International Journals of Business and Management		

B.Com. IT Part- III (Semester – VI)

B. Com. (IT) Part-III (Sem-VI) DSE 23 Lab Course Based on DSC20

Course Code:DSC23	Lab Course Based on DSC20	Credits:2	Marks:50
			Internal: 50
Course Outcomes:	After completion of this course students will be able to – Upon completion of the practical assignments, students will demonstrate proficiency in installing and utilizing R and R Studio, effectively employing fundamental programming concepts, and will acquire the skills to visualize data through various plots and charts.		
Program List	Experiments		
1	Install R and R Studio on your computer and provide screenshots of the installation process.		
2	Create a variable called "age" and assign your age to it. Print the value of the variable.		
3	Write a program to accept two numbers from the user and perform addition, subtraction, multiplication, and division operations on them.		
4	Use the if...else statement to check if a given number is even or odd.		
5	Write a function called "calculate_circle_area" that takes the radius of a circle as input and returns its area.		
6	Create a vector containing the numbers 1 to 10. Print the vector and calculate its sum.		
7	Write a program to find the factorial of a given number using a recursive function.		
8	Create a matrix of size 3x3 with random integer values. Print the matrix and find its transpose.		
9	Import a dataset using the read.csv() function and display its structure using the str() function.		
10	Plot a scatter plot between two variables from the dataset and add appropriate labels and title to the plot.		
11	Create a bar plot showing the frequency of a categorical variable from the dataset.		
12	Generate a box plot for a numeric variable in the dataset and interpret its results.		
13	Plot a histogram for a numeric variable in the dataset and adjust the number of bins for better visualization.		
14	Use the paste() function to concatenate strings and format() function to format numbers in a desired way.		
15	Create a 3D pie chart using the pie3D() function from the plotrix package and customize its appearance.		