DEPARTMENT OF MANAGEMENT (UG)

RATHINAM COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

RathinamTechzone, Pollachi Road, Eachanari, Coimbatore – 641021

Syllabus for

BBA Logistics

(I to IISemester)

2020-2021 Batch on-wards

Vision and Mission of the Institution:

VISION
To emerge as a world renowned Institution that is integrated with industry to impart knowledge, skills, and research culture and values in young who can acceleratethe overall development of India.

MISSION
To impart superior quality education at affordable cost, nurture academic and research excellence, maintain eco-friendly and future-ready infrastructure and create a team of well qualified teaching professionals who can build global competency and employability.

MOTTO
Transfer the youth into National asset.

Vision and Mission of the Department:

Vision Statement
- ➢ To have global presence with innovation in business, accept challenges and imbibe values; a strong management education as a culture through-out the stay.

Mission Statement
- ➢ To create a culture of creativity and innovation that will help every student to face the challenge and tackle with the best education providing the best infrastructure to make all students a globally fit in business.

Program Educational Objectives (PEO)

PEO1	:	Graduates will demonstrate elevated learning for growth and development
PEO2	:	Graduates will be responsible leaders across the global
PEO3	:	Graduates will apply knowledge blended with appreciable leadership skills.
PEO4	:	Graduates will be a responsible citizen and provide innovative solutions for social problems.
PEO5	:	Graduates will be adaptable in use of computer technology and relevant skills to further pursue the advanced career in management.

Mapping of Institute Mission to PEO

Institute Mission	PEO's
To impart superior quality education at affordable cost, nurture academic and research excellence, maintain eco-friendly and future-ready infrastructure and create a team of well qualified teaching professionals who can build global competency and employability.	PEO1, PEO4 and PEO5

Mapping of Department Mission to PEO

Department Mission	PEO's
To create a culture of creativity and innovation.	PEO4
To Help every student to face the challenge and tackle with the best education.	PEO1
To provide a state of the art infrastructure in all means.	PEO3and PEO5
To make every student a globally fit in business	PEO2, PEO1and PEO4

Program Outcomes (PO):

PO1	:	Endow with advanced business insight that helps them to understand the key business functions and organizational resources for efficient business management.
PO2	:	Attain knowledge and skills in management, finance, accounting, marketing, Human resource, technology, organizational behaviour, economics, operations and business law.
PO3	:	Reveal the ability to analyze complex, unstructured qualitative and quantitative problems by collecting, analyzing data by using accounting, financial, mathematical, statistical tools, information and communication technologies to solve the complex business problems.
PO4	:	To extend organizational efficiency and create innovative business solutions.
PO5	:	Explore business-related behavioral skills including leadership, interpersonal, communication (written and oral), team, and lifelong learning skills.
PO6	:	To discover global market opportunities and their influence on strategic marketing decisions.
PO7	:	Exhibit critical thinking skills in understanding managerial issues and problems related to the global economy and international business.
PO8	:	Disseminate a sense of social responsibility that managers must address, including business ethics, cultural diversity, and environmental concerns.
PO9	:	Demonstrate entrepreneurial traits to start and manage their own innovative business successfully.

Correlation between the POs and the PEOs

Program Outcomes		PEO1	PEO2	PEO3	PEO4	PEO5
PO1	:	H	M	M	M	L
PO2	:	H	M	H	M	M
PO3	:	M	H	H	H	L
PO4	:	H	L	H	H	L
PO5	:	H	H	H	H	L
PO6	:	H	H	H	H	H
PO7	:	H	H	M	H	H
PO8	:	L	L	H	H	L
PO9	:	L	M	H	H	L

Components considered for Course Delivery is listed below:
1. Class room Lecture
2. Laboratory class and demo
3. Assignments
4. Mini Project
5. Project
6. Online Course
7. External Participation
8. Seminar
9. Internship

Mapping of POs with Course Delivery:

Program Outcomes	Course Delivery								
	1	2	3	4	5	6	7	8	9
PO1	✓	✓	✓	✓	✓	✓		✓	✓
PO2	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO3	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO4	✓	✓	✓	✓	✓	-	✓	✓	✓
PO5	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO6	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO7	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO8	✓	✓	✓	✓	✓	✓	✓	✓	✓
PO9	✓	✓	✓	✓	✓	✓	✓	✓	✓

RATHINAM COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)
Scheme of curriculum for
BBA Logistics for the students admitted in the Batch during 2020 - 2021
Board of Studies – Management Science (UG)

S. No	Sem	Part	Sub Type	Sub Code	Subject	Credit	Hours	INT	EXT	Total
					RATHINAM COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)					
					Scheme of Curriculum for BBA CA for the Batch admitted during 2019-2020 Onwards					
1	1	1	L1		Language – I	4	4	40	60	100
2	1	2	L2		English for Communication – I	4	4	40	60	100
3	1	3	Core		Core - Principles of Management	4	4	40	60	100
4	1	3	Core Practical		Core Practical - Principles of Management	2	4	20	30	50
5	1	3	DSC		DSC 1C Modern Office Management	4	4	40	60	100
6	1	3	DSC Practical		DSC Practical - 1C MOM Practical	2	4	20	30	50
7	1	3	Allied-I		DSA 1A Business Mathematics	4	4	40	60	100
8	1	4	AEC		Ability Enhancement Course I Environmental studies	2	2	50		50
9	1	6	VAC		Value Added Course - I	2	-	50		50
						28	**30**			
1	2	1	L1		Language – II Tamil - II	4	4	40	60	100
2	2	2	L2		English for Communication – II	4	4	40	60	100
3	2	3	Core		Core - Organizational Behavior	4	4	40	60	100
4	2	3	Core Practical		Core Practical – Organizational Behavior	2	4	20	30	50
5	2	3	DSC		DSC 2C- Forecasting and Inventory Management	4	4	40	60	100
6	2	3	DSC Practical		DSC Practical - 2C Forecasting and Inventory Management	2	4	20	30	50
7	2	3	Allied-II		DSA 2A-Quantitative Techniques	4	4	40	60	100
8	2	4	AEC		Ability Enhancement Course II	2	2	50		50
9	2	6	VAC		Value Added Course - II %	2	-	50		50
						28	**30**			

S. No.	Sem	Part	Sub Type	Sub Code	Subject	Credit	Hours	INT	EXT	Total
1	3	3	Core		Core – Surface Transportation	4	5	40	60	100
2	3	3	Core Practical		Core Practical – Surface Transportation	2	4	20	30	50
3	3	3	DSC		DSC 3C-Frieght Forwarding (ocean and Air Cargo)	4	5	40	60	100
4	3	3	DSC Practical		DSC Practical - 3C- Frieght Forwarding (ocean and Air Cargo)	2	4	20	30	50
5	3	3	Allied-III		DSA 3A- Business Law	4	5	40	60	100
6	3	4	SEC		Skill Enhancement Courses – I Communication Skills	2	5	20	30	50
7	3	4	AEC		Ability Enhancement Course III	2	2	50		50
8	3	6	VAC		Value Added Course - III %	2	-	50		50
9	3	6	IDL		Inter Department Learning – I# Digital Marketing	2	-	50		50
						24	**30**			

S. No.	Sem	Part	Sub Type	Sub Code	Subject	Credit	Hours	INT	EXT	Total
1	4	3	Core		Core – Human Resource Management	4	5	40	60	100
2	4	3	Core Practical		Core Practical - HR Practices	2	4	20	30	50
3	4	3	DSC		DSC 4C-International Logistics Management	4	5	40	60	100
4	4	3	DSC Practical		DSC Practical - 4C- MIS for logistics	2	4	20	30	50
5	4	3	Allied-IV		DSA 4A-Port and Terminal Logistics	4	5	40	60	100
6	4	4	SEC		Skill Enhancement Courses – II	2	5	20	30	50
7	4	4	AEC		Ability Enhancement Course IV	2	2	50		50
8	4	6	VAC		Value Added Course - IV %	2	-	50		50
9	4	6	IDL		Inter Department Learning – II#	2	-	50		50
						24	**30**			

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S. No.	Sem	Part	Sub Type	Sub Code	Subject	Credit	Hours	INT	EXT	Total
1	5	3	Core		Core – Cost and Management Accounting	4	4	40	60	100
2	5	3	Core Practical		Core Practical Financial Accounting Package	2	4	20	30	50
3	5	3	DSC		DSC 5C- Logistics Network Design	4	4	40	60	100
4	5	3	DSC Practical		DSC Practical - 5C- Logistics Network Design	2	4	20	30	50
5	5	3	DSE		Elective - I – DSE 1E	4	5	40	60	100
6	5	3	DSE		Elective - II – DSE 2E	4	5	40	60	100
7	5	4	SEC		Skill Enhancement Courses – III	2	4	20	30	50
8	5	6	VAC		Value Added Course - V%	2	-	50		50
						24	**30**			

S. No.	Sem	Part	Sub Type	Sub Code	Subject	Credit	Hours	INT	EXT	Total
1	6	3	Core		Core - International Logistics Management	4	6	40	60	100
2	6	3	Core Practical		Core Practical – Port Terminal Logistics	2	4	20	30	50
3	6	3	DSE		Elective – III – DSE 3E	4	6	40	60	100
4	6	3	DSE		Elective – IV – DSE 4E	4	6	40	60	100
5	6	3	Core Course - XI		Core Project	8	4	80	120	200
6	6	4	SEC		Skill Enhancement Courses – IV	2	4	20	30	50
7	6	5	EX		Extension Activity- EX %	2	-	50		50
						26	30			
								1900	1950	3850
					Total credit	154				

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		Discipline Specific Core			
S.No	Course Code	Course	Pre-requisite	Offering Department	Mandatory
1		Modern Office Management		BBA	NO
2		Modern Office Management Lab		BBA	NO
3		Forecasting and Inventory Management		BBA	NO
4		Frieght Forwarding (ocean and Air Cargo)		BBA	NO
5		International Logistics Management		BBA	NO
6		Logistics Network Design		BBA	NO
7		Financial Accounting		Commerce II	NO
8		Executive Communication		English	NO
9		Production and Materials Management		BBA	YES
10		Financial Management		BBA	NO
11		Services Marketing		BBA	NO
12		Industrial Training Report		BBA	NO
13		Research Methodology		BBA	NO
14		Marketing Research		BBA	NO
15		Training & Development		BBA	NO
16		Business Ethics		BBA	NO
17		Banking Theory		Commerce II	NO
18		Corporate Governance		BBA	NO
19		Sales and Distribution		BBA	NO
20		Total Quality Management		BBA	NO
21		Stock Exchange & Practice		Commerce II	NO

		Allied			
S.No	Course Code	Course	Pre-requisite	Offering Department	Mandatory
1		Business Mathematics		Maths	YES
2		Quantitative Techniques		Maths	YES
3		Business Economics		Commerce II	NO
4		Cost and Management Accounting		Commerce II	NO
5		E-Business		BBA	NO
6		Event Management		Viscom	NO
7		Company Law		Commerce II	NO
8		Corporate Accounting		Commerce II	NO
9		Stress Management		Psychology	NO

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		Skill Based Subject			
S.No	Course Code	Course	Pre-requisite	Offering Department	Mandatory
1		Taxation		BBA	YES
2		Direct Taxes		BBA	NO
3		Indirect Taxes		BBA	NO
4		Rural Marketing		BBA	NO
5		Entrepreneurship		BBA	YES
6		Management Information System		BBA	NO
7		Export and Import Documentation		Commerce II	NO
8		Fundamentals of Insurance		Commerce II	NO
9		Digital marketing with Practical		BBA	NO
10		Business Law		BBA	NO

		Discipline Specific Elective			
S.No	Course Code	Course	Pre-requisite	Offering Department	Mandatory
1		Supply Chain Management		BBA	YES
2		Principles of Logistics Information		BBA	NO
3		E-Logistics		Commerce II	NO
4		Dry Cargo Chartering		BBA	NO
5		International Marketing for Logistics and Supply chain Management		BBA	YES
6		Global Supply chain Integration and International Sourcing		BBA	NO
7		Retail Supply Chain Management		BBA	YES
8		Logistical Operation Integration		BBA	NO

	Ability Enhancement Course				
S.No	Course Code	Course	Pre-requisite	Offering Department	Mandatory
1		Environmental Studies	-	General	YES
2		Women Studies	-	Commerce II	NO
3		Constitution of India	-	Commerce I	NO
4		Human Rights	-	General	YES
5		Yoga	-	Tamil	NO
6		NCC	-	Viscom	NO
7		Communicative English	-	English	NO
8		Quantitative Aptitude	-	Mathematics	NO

Mapping of Courses and POs:

Course Code	Course Name	Program Outcomes											
		P01	PO2	P03	P04	P05	P06	P07	P08	P09			
19BBA1CA	Principles of Management	S	S	S	S	S	M	S	M	M			
19BBA2CA	OrganisationalBehaviour	S	S	S	S	M	S	S	M	S			
19BBA3CA	Marketing Management	M	M	M	M	M	M	M		M			
19BBA4CA	Human Resource Management	M	M	S	M	M	M	M		M			
19BBA5CA	Strategic Management	S	S	S	S	S	S	S		M			
19BBA6CA	International Business Management	S	S	S	S	S	S	S		M			

Inter Department Learning Courses:

Semester – III	1. Digital Marketing 2. Investment Management 3. Event Management 4. Basics of Business Ethics
Semester - IV	1. Talent Management 2. Career planning & Guidance 3. Consumer Behavior 4. Entrepreneurial Development

SEMESTER I

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core - II – Principles of Management	4	4	-	0	Theory

Introduction:

To enable the students to learn principles, concepts and functions of Management. Identify the key competencies needed to be an effective manager. Provide the students with the capability to apply theoretical knowledge in simulated and real-life settings. Develop the students' ability to work in teams.

Course Outcomes:

CO1	:	Discuss and communicate the management evolution and how it will affect future managers
CO2	:	Observe and evaluate the influence of Historical forces on the current practice of management
CO3	:	Identify and evaluate social responsibility and ethical issues involved in business situations and logically articulate own position on such issues.
CO4	:	Practice the process of management's four functions: planning, organizing, leading, and controlling.
CO5	:	Identify and properly use vocabularies within the field of management to articulate one's own position on a specific management issue and communicate effectively with varied audiences.

UNIT I
Introduction- Definition of management, nature and scope of management - Management as a science and art, Management as a profession, Management and Administration-Managerial roles and Skills; Development of Management through; Classical and neo – classical systems; Contingency approaches: - Robert Owen, Taylor Fayol, and Elton Mayo.
UNIT-II
Planning – Nature – Importance – Forms – Types – Steps in Planning – Objectives – Policies – Procedures and Methods – Nature and Types of Policies – Decision Making – Process of Decision making – Types of Decisions – Problems involved in Decision – making.
UNIT-III
Organizing – Types of Organization (Line and Staff, Committees, Projects, Matrix) – Organizational structure – Span of Control – Departmentalization – Informal Organization-Meaning and functions of Staffing.
UNIT IV
Authority – Delegation – Decentralization – Difference between authority and power – Uses of authority – Distinction between Centralization decentralization – Responsibility –Nature, Purpose and Scope of Directing. - Controlling – Meaning, importance and Types of Control -

Control Process.
UNIT V
Co-ordination – Need for Co-ordination – Types – Techniques – hierarchy of control-Co-operation-meaning- Distinction between co-ordination and co-operation – Requisites for excellent Co-ordination.

Textbook:

1. P.C. Tripathy, "Principles of Management," Tata McGraw hill publishing Company ltd, 5th Edition, 2012, New Delhi.

2. T. Ramasamy, "Principles of Management," Himalaya Publishing House, First Edition, 2014.

Reference

1. R.K.Sharma&ShashiK.Gupta, Principles of Management

2. Bhushan Y.K, "Business Organization," Sultan Chand & Sons, Nineteenth Edition -2013.

3. L.M. Prasad, Principles of Management, 5th Edition, Himalaya publication, Mumbai – 2006.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes											
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**	**P10**	**P11**	**P12**
CO1	H	H	H	H	H	H	H	H	H	M	H	H
CO2	H	H	H	H	H	H	H	H	M	H	H	H
CO3	H	H	H	H	H		H	H	H	M	H	M
CO4	H	H	H	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H		H	H	M

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core Practical I - Principles of Management	**4**	**-**		**4**	**Practical**

Course outcomes:

CO1	:	To relate the theory and real business situations.
CO2	:	To ascertain the various techniques and employ in real situations
CO3	:	To critically evaluate the problems and to prepare innovative solutions

Practical Exercise

1. Describe the functions of a manager as applicable to an Industry, also amplify coordination as a task of the manager.
2. Henry Fayol is regarded as "Father of modern management theory." What are various groups, in which Industrial activities can be divided, support your answer be the figure diagram.

3. Planning in an Industry occupies an important place for all managers, write types of Plans as applicable to various industries.

4. The principle of efficiency of plans states "The efficiency of a plan is measured by the amount it contributes to purpose and objectives as offset by the costs required to formulate and operate it and by unsought consequences."

5. What do you understand by Matrix Organization, mention advantages and disadvantages of Matrix Organization?

6. "Informal organization is detrimental to the interests of formal organization and, therefore, it is an evil to be nipped in the bud itself.
7. "Decentralization is not necessarily good, nor centralization necessarily bad".
8. Explain Leadership & Management – Relationship and Differences.
9. Discuss Qualities of a Leader in an Organization.
10. Is Management a Science or an Art?
11. Suppose you are the CEO of a shoe-making firm. Your company is about to launch a new product in the market. Which type of teams would you build and what responsibilities would you allot them?
12. "Leadership is the driving force which gets thing done by others". Discuss
13. Suppose you have inherited a business of your father who nurtured employees like a family, thus turning the organisation into an informal type. How will you ensure commitment to your plans of fast growth and profit maximization?
14. Assuming that the trend toward robotics and artificial intelligence continues into the next century, how might managers and HR departments be affected?

15. "Management involves coordination and integration of all resources, to accomplish specific results". Explain.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	H	H	H	H
CO2	H	H	H	H	H	H	H	H	M
CO3	H	H	H	H	H		H	H	H
CO4	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H	

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Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core - II – Modern office Management	4	4	-	0	Theory

Course Outcomes:

CO1	:	Able to gain knowledge about basic office
CO2	:	Identify the characteristics of office environment
CO3	:	Apply the techniques of filing and maintain the records
CO4	:	State the basic of word formatting
CO5	:	Equip the creating presentations

Unit –I

Office Management and organization Basic concepts of office – Importance – Functions – size of the office – office management – relations with other departments – scientific office management – office manager - principles of office organization – types / systems of organization – charts – centralization Vs. decentralization.

Unit- II

Office Environment & Communication Office location – characteristics / Qualities of office building – Environment – Physical – hazards in office safety – security – secrecy – communication – meaning – essential features – classification – barriers to communication.

Unit –III

Office correspondence & Record management Centralized Vs Departmental correspondence – depart mental typing and typing pools – classification of records – principles of record keeping – filling – methods.

Unit- IV

MS Word:– Word basics, formatting text and documents, working with headers, footers and footnotes, tabs, tables and sorting, Working with graphics, templates, and introduction to mail merge.

MS Excel:- Excel basics, rearranging worksheets, excel formatting tips and techniques, Introduction to functions; Excel chart features, working with graphics, Using worksheet as a Database.

Unit-V

MS Power Point:- Power Point basics, creating presentation the easy way, working with graphics, Inserting various objects (Picture, Organizational Chart, Audio, Video etc) in slide, Adding Animation effects in slide.

Reference Books:
1. Modern office management – Dr. I.M.SAHAI –SathiyaBhawan Agra
2. Office organization And Management – S.P Arora – Vikas publishing House Pvt Ltd.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes											
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**	**P10**	**P11**	**P12**
CO1	H	H	H	H	H	H	H	H	H	M	H	H
CO2	H	H	H	H	H	H	H	H	M	H	H	H
CO3	H	H	H	H	H		H	H	H	M	H	M
CO4	H	H	H	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H		H	H	M

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core Practical II – Modern office Management	**4**	**-**		**4**	**Practical**

Course Outcomes:

CO1	:	Demonstrates correct keyboard fingering techniques independently
CO2	:	Acquire the basic mechanics of creating Word documents for office use
CO3	:	Demonstrate working knowledge of organizing and displaying large amounts and complex data.
CO4	:	Comprehend to secure information in an Excel workbook
CO5	:	Familiar working knowledge of integrating information from other Microsoft programs into a PowerPoint presentation

PC Software Suggested List of Practical Exercises : QP for practical should have two exercises one necessarily from MS Word, and the other one from any of the three – MS Excel or MS Access or MS PowerPoint. On execution, examiners need to interact with the candidate individually to ensure the depth of the understanding in order to apply these concepts in their work-life.
 MS Word:

1. Type a simple two-page matter (A4 page 12 size font). Save your document in a specified location. (say, D:\BBA\MSOffice\.docx). Save the same file with other name in different location using Save As dialogue box.

2. Design E-book cover pages / Magazine / books front/back page using cover page option   in Insert Menu. You can assume your college or department in-house magazines.

3. Create Business Cards using Shapes, text, and colors. Assume your own company and simply try out a logo too for the same.

4. Use smart art and create organization charts with at least 3 levels and more realistic of an organization known to you.

5. Make books content page or index page (first line indent, hanging indent and the perfect use of ruler bar in Microsoft Word)

6. Insert Image into the shape. Type a title for the page and apply Styles to the same.

7. Type at least two page of A4 page in 12 size font. Select a sentence in the same and bring the same in the text box. Place the text box inside the text and wrap the main text around the text box.

8. Write at least dozen mathematical/ statistical formulae known to you (Areas of a circle (A) = where r is the radius of the circle) and key in the same in MS word.

9. Take a double column newspaper and design or create similar paragraph style in the word document.

10. Write 10 lines or 10 sentences and then change the font, style, color and size of each sentence. Make each one different than previous and next.

11. Type at least one A4 page with relevant matter to demonstrate superscript, subscript, special characters (such as temp °C, rupee symbol `, Etc.,)

12. Type two pages of textual matter about your college (A4 page, 12 size font). You can use spell check, autocorrect, auto text features. Select the words ‗college‘ in the typed passage and change them in to ‗institution‘ by using ‗Find & Replace option.

13. List any five friends and describe about them in a paragraph. Use Numbering and Bulleting to format this page.

14. Type out your bio-data with neat alignment and using tab setting. Also make a covering letter enclosing the same to a company of your choice.

15. Create a table in MS Excel with an address list containing Designation, Name of the Company, Address1, Place, PIN. Let it have ten addresses. Use this list for mail merges in a letter developed using MS Word. Save the merged letter in a different file.

MS-Excel:

1. Enter your classmates name and register number in a workbook, and as like your class teacher add CIA test1 and 2 marks; add final model exam marks. Using various functions in Excel, take the best out of the former two and model exam mark after converting them for a max of 10. Make the total for each student which will be out of twenty.

2. As a student in charge of library books in your department, prepare a worksheet of books borrowed from library by your department.

3. Make a shopping list of at least dozen commodities. Based on the quantity and price of each unit, prepare an invoice for the whole basket using MS Excel worksheet.

4. Enter the name, relationship and date of birth of your family members and relatives in a MS Excel worksheet. Calculate their age as of today and arrange them either in descending or ascending order. (ensure to have at least ten entries). Assuming their weight (kg) and height (cm), find out their BMI by using formula.

5. Prepare a list of ‗Plus 2‘ classmates with their school marks out of 1200. Find the percentage. Count how many scored more than 60%. Also count the number of students secured between 50% and 60%.

6. Create a table of your friends with their mobile number and mail id. Also add their date of birth. Find out the number of days left to celebrate their birthday and arrange their

names in this order. Create a pie chart indicating the number of birth days in each month.

MS-PowerPoint:
1. Create at least ten slides for a new product launch campaign. Assuming that your company with an umbrella brand launches a new product for a specific niche market segment.
2. Have a PowerPoint presentation for a seminar which you are handling for your classmates.
3. Prepare slides with various features such as charts from Excel, clip arts from hard disc, and animated themes to demonstrate your expertise in using various features included in MS PowerPoint.
4. Prepare slides to argue out your stand on —Are girls more intelligent than boys?
5. Prepare slides to explain your position on —Indian Villages: Strengths and Weakness‖
6. Why Android is the most popular mobile operating system in the world?

Prepare a PowerPoint show to validate your point of view.

Text Books:
1. Sanjay Saxena; "A First Course in Computers", 2013 Edition, Vikas Publishing House Pvt. Ltd., (2013).
2. Steffen Moffat, The Mouse Training Company, Excel 2010 Introduction Part II, Stephen Moffat&Ventus Publishing APS (2010).

Reference:
1. Gerald Joyce, Moon, Marianne; "Microsoft word-2000- At a glance", Microsoft press, (1999).
2. Kathy Ivens, Carleberg, Conrad; "The Complete Reference- Excel 2000", Tata Mc-Graw Hill pub., (2001).
3. Sanjay Saxena; "MS Office 2000 for everyone", Vikas Publishing House Pvt. Ltd, (2010).

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes											
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**	**P010**	**P011**	**P012**
CO1	H	H	H	H	M	H	M		M	M	H	H
CO2	H	H	H	H	M	H	M		M	M	H	H
CO3	H	H	H	H	M	H	M		M	M	H	H
CO4	H	H	H	H	M	H	M	H	M	M	H	H
CO5	H	H	H	H	M	H	M		M	M	H	H

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Business Mathematics	4	6	0	0	Allied – I

Introduction: To enable the students to learn the Application of Mathematics with respect to business application.

Objectives: To make the students learn the basic mathematics used for the business purposes

CO1	:	To understand the basics pricing concepts in marketing and Profit and Loss
CO2	:	To understand the calculation of Interest and EMI
CO3	:	To understand the shares and its values
CO4	:	To understand the matrix and its components
CO5	:	To understand the calculatethe LPP

Unit - I

Profit and Loss - Cost Price, Selling Price, Marked price, Loss, Trade discount and Cash discount, Commission, Brokerage, Problems on these topics

Unit - II

Interest - Concept of present value, Simple Interest, Compound interest, Amount at the end of period, Equated Monthly Installment (EMI) by reducing and flat interest system, problems.

Unit - III

Shares - Concept of share, Stock Exchange, Face value, Market Value, Dividend, Equity shares, Preference shares, Bonus shares, Examples.

Unit - IV

Matrices and Determinants -Definition of a Matrix, Types of Matrix, Finding inverse of a matrix by Adjoint method. Solution of a system of linear equations having unique solution and involving not more than three variables problems.

Unit - V

Linear Programming Problems - Graph of linear equation, Graph of linear inequality, Formulation of LPP, Solution by Graphical method, Problems relating to two variables

Recommended Text Books:

1. Business Mathematics - V. K. Kapoor (S. Chand and Sons, Delhi)

2. Business Mathematics - Bari

Books for Reference:

1. Problems in Operation Research - P. K. Gupta andMan Mohan

Approved in the BOS Meeting held on 09-07-2020

2. Qualitative Methods and Operation Research - G. Gopikuttan (Himalaya Publishing House)

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes											
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**	**P10**	**P11**	**P12**
CO1	H	H	H	H	H	H	H	H	H	M	H	H
CO2	H	H	H	H	H	H	H	H	M	H	H	H
CO3	H	H	H	H	H		H	H	H	M	H	M
CO4	H	H	H	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H		H	H	M

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SEMESTER II

,uz;lhk; gUtk;
(gf;jp ,yf;fpak;>rpw;wpyf;fpak;> mw ,yf;fpak;>rpWfijfs;> ,yf;fpatuyhW)

myF I gf;jp ,yf;fpak;   **[12 Periods]**

    1. Mz;lhs; jpUg;ghit - 10 ghly;fs;
2. ts;syhu;   - ,uz;lhk; jpUKiw - 10 ghly;fs;
3. Njk;ghtzp   - igjpuePq;Fglyk;
4. rPwhg;Guhzk;   - cLk;GNgrpaglyk;

myF II rpw;wpyf;fpak;   **[12 Periods]**

1. kPdhl;rppak;ikgps;isj;jkpo; - 2 ghly;fs;
2. fypq;fj;Jg;guzp – Nfhapy; ghbaJ
3. kJiuf;fyk;gfk;
4. fps;istpL J}J

myF III mw ,yf;fpak;   **[12 Periods]**
    1. jpUf;Fws;   - mwj;Jg;ghy; - nrhy;yhik
                - nghUl;ghy;   - rpw;wpdQ;Nruhik
       - ,d;gj;Jg;ghy; - gphpthw;wik
2. ehybahh;   -5 ghly;fs;
3. gonkhopehD}W -5 ghly;fs;
4. Mrhuf;Nfhit   -5 ghly;fs;

myF IV rpWfijfs;   **[12 Periods]**

1. rpWfijfs;;- 6 fijs;

myFV ,yf;fpatuyhW   **[12 Periods]**
1. ePjp ,yf;fpak;
2. rpw;wpyf;fpak;
3. gf;jp ,yf;fpak; - irtk;>itztk;>ngsj;jk;>rkzk;> ,];yhkpak;>fpwpj;Jtk; - Njhw;wKk;
    tsh;r;rpAk;   (K.t. jkpo; ,yf;fpatuyhW)

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	English For Management	**5**	**6**	**-**	**-**	**Theory**

Introduction:
To enable the students to be familiar with management and business terms and develop writing, reading, listening and vocabulary skills.

Course Outcomes:

CO1	:	To be familiar with management terms, phonetics.
CO2	:	To develop listening skills.
CO3	:	To develop writing skills.
CO4	:	To develop vocabulary skills like formation of word and expansion of words.
CO5	:	To develop the reading skills.

UNIT I [12 Periods]

LISTENING – Introduction to Management - Listening to audio (Sounds, Phonetics) - Listening to video lectures, talks - Listening to audio files & answering questions – SPEAKING – Speaking about Management, Business Concepts - Article/Speech and Writing summary related to Accounting . WRITING - Free writing on any given topic (commerce) - Sentence completion VOCABULARY - Word formation - Word expansion (Banking Terms / Business Terms).

UNIT II [12 Periods]

Writing – Introduction to Concepts of Marketing, Sales, - Listening to audio (Sounds, Phonetics) - Listening to video lectures, talks on Marketing - Listening to audio files on Selling process – SPEAKING – Speaking about selling a product - Article/Speech and Writing summary related to Advertisement . WRITING – Expository /Free writing on any given topic on Sales letter, Product launch Letter, compliant letter, reminder letter, create an advertisement- Sentence completion VOCABULARY -Word formation - Word expansion (Marketing Terms / Business Terms). READING – Organizing / Features / Marketing concepts– Picture based activities.

UNIT III [12 Periods]

LISTENING – Introduction to Human Resource Management (HRM) - - Listening to audio (Sounds, Phonetics) - Listening to video lectures, talks on HRM Concepts- Listening to

audio files on HRM concepts– SPEAKING – Speaking - Giving impromptu talks on HRM - Speaking about HRM concepts - Article/Speech and Writing summary related to Lease. WRITING – Expository /Free writing on any given topic on Preparation of resume, manpower requirement, Writing to social media, websites - Sentence completion VOCABULARY -Word formation - Word expansion (root words / etymology – related Peripherals). READING – Skimming and scanning information on HRM – Picture based activities.

UNIT IV   **[12 Periods]**

LISTENING – Introduction to Finance - Listening to audio (Sounds, Phonetics) - Listening to video lectures, talks on Finance - Listening to audio files on Marketing – SPEAKING – Speaking - Giving impromptu talks on Budget Preparation - Speaking about Financial Statements - Article/Speech and Writing summary related to Marketing.   WRITING – Expository /Free writing on any given topic on finance- Sentence completion VOCABULARY -Word formation - Word expansion (root words / etymology – related Finance). READING – Skimming and scanning information on Finance – Picture based activities

UNIT V   **[12 Periods]**

LISTENING – Introduction to Entrepreneurship development   - Listening to audio (Sounds, Phonetics) - Listening to video lectures, talks on Entrepreneurs- Listening to audio files on HRM– SPEAKING – Speaking - Giving impromptu talks on Start-ups - Speaking about Project management - Article/Speech and Writing summary related to Entrepreneurship .WRITING – Expository /Free writing on any given topic on Business plan - Sentence completion VOCABULARY -Word formation - Word expansion (root words / etymology – related project management READING – Skimming and scanning information on Entrepreneurs– Picture based activities

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	M	H	M		M
CO2	H	H	H	H	M	H	M		M
CO3	H	H	H	H	M	H	M		M
CO4	H	H	H	H	M	H	M	H	M
CO5	H	H	H	H	M	H	M		M

Approved in the BOS Meeting held on 09-07-2020

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core – Organisational Behaviour	**4**	**4**	**-**	**0**	**Theory**

Course Outcomes:

CO1	:	Students came to know the need, scope and theories of organization
CO2	:	Students achieve knowledge on various motivational techniques of employees
CO3	:	Students learned knowledge on work environment and leadership styles
CO4	:	Students acquired knowledge on group dynamics in an organization
CO5	:	Students understood the climate and culture in an organization

Introduction:

To enable the students to acquire knowledge about organizational behavior in industry**,** tofamiliarize the students with the basic concepts of the organizational behavior and to enhance their understanding of the interaction between the individuals and the organizations**.**

UNIT I   **[12 Periods]**

Importance And Scope Of Organizational Behaviour – Individual Differences - Intelligence Tests - Measurement Of Intelligence - Personality Tests - Nature, Types And Uses.- Importance - Group Dynamics – Cohesiveness.

UNIT II   **[12 Periods]**

Perception - Factors affecting perception - Motivation - theories - financial and non-financial motivation - techniques of motivation - Transactional Analysis - Brain storming.

UNIT III   **[12 Periods]**

Job satisfaction - meaning – factors, Morale - importance - Employee attitude and behaviourand their significance to employee productivity - Job enrichment - job enlargement.

UNIT IV   **[12 Periods]**

Conflict - Types of Conflict – Resolution of conflict - Sociometry - Group norms – supervision - style - Training for supervisor   Leadership - types - theories – Trait, Managerial Grid, Fiddler's - contingency

UNIT V   **[12 Periods]**

Stress management—meaning, types of stress- consequences of work stress. Counselling - meaning - Importance of counsellor - types of counselling - merits of counselling.

Text Books:

1. K. Ashwathappa, "Organizational BeHaviour", Himalaya Publishing House – 6th Edition(Unit I to V)

Reference

1. L.M. Prasad, "Organizational Behaviour", Sultan Chand & Sons, Fifth Edition 2014.

2. Keith Davis, "Human Behaviour at Work", McGraw-Hill HigHer Education – 11^{tH} Edition, 2015.

3. Keith Davis, "Human Behaviour at Work, McGraw Hill, Higher Education, 7tH Edition,
4. Ghos, "Industrial Psychology", Himalaya Publishing House, First Edition, 2015.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	H	H	M	
CO2	H	H	H	H	H	H	H	M	H
CO3	M	H	H	H	H	H	H	M	H
CO4	M	H	H	H	H	M		H	
CO5	H	H	H	H	H		H	M	M

Approved in the BOS Meeting held on 09-07-2020

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Core Practical – Organisational Behaviour	**2**	**4**		**4**	**Practical**

Course Outcomes:

CO1	:	Students came to know the need, scope and theories of organization
CO2	:	Students achieve knowledge on various motivational techniques of employees
CO3	:	Students learned knowledge on work environment and leadership styles
CO4	:	Students acquired knowledge on group dynamics in an organization
CO5	:	Students understood the climate and culture in an organization

1.   You are a CEO of a multi-unit company. In one of your units performance has been declining rapidly for the last six months. Although the unit head is committed manager, he cannot do much, because according to him, even though the managers individually are responsible, they lack some technical computer knowledge, and do not function as a team.

 Questions:

        What are the OB challenges involved in this and what will you do?

2. XYZ company follows a strict performance management system. The company's managers aim at retailing the good performers and making the not-so-good performers to leave the company. Some unrest situation was existing and the attrition rate was higher.

Questions:

        What organizational behaviour related challenges the company faces if its managers wanted to retain the good performers and allow not-so-good performers to leave? Discuss.

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3. In a factory, the male chief executive officer feels that women have an equal opportunity for advancement into top management, but the female assistant personnel manager feels there is no way she can break into top management's good old boy network. In another factory, the head engineer who tours the factory floor once a week in an electric cart feels this is a pleasant place to work, but a punch press operator thinks this place ranks right next to the State prison.

Questions:

1. Point out the reason for difference in perception in the first case?

2. Why does the engineer feel a pleasant place to work whereas the operator regards it next to prison? Explain the reason.

4. Rakesh Parashar, a former group leader, was become a supervisor about four months ago when Darshan Singh left the company. He recently had some problems with two of his people. Their output has been declining steadily, and by now is well below standard. In addition, his department's overall performance has been slipping.

   You noticed that the output of his section has dropped off from the last two months. You made a survey personally and found that there are two or three trouble makers in Rakesh's section. But Rakesh was not able to control them and keep them in line. When Rakesh asked he explained I talked with each one at least twice and tried to lay down the law.

   I even told them the consequences if they didn't do more and much better work. They have both been with the company a long time, but I suppose in time I could build up a case against them and get them fired. But I would probably wind up looking like an ass.

   Questions:

   1. What will you say to Rakesh who has a trouble in his section and who lacks communicating skill?

   2. What action will you suggest against the trouble maker employees?

5. In XYZ organisation, the members of a project management team used to report directly to the project manager. However, a change in the hierarchy was implemented, wherein the role of a team leader came into picture. The members of the team now had to report to that team leader directly. Some resistance was arising because of this new arrangement.

Questions:

1. As a manager how will you convince the team members by specifying the merits of the new arrangement to report to the team leader?

6. In a large office an employee named Rozy may feel like a mere payroll number, but her informal group gives her personal attachment and status. With the members of her group she is somebody, even though in the formal structure she is only one of a thousand employees. She may not look forward to monitoring 750 accounts daily, but the informal group gives more meaning to her day. When she thinks of meeting her friends, sharing their interests, and eating with them, her day takes on a new dimension that makes easier any difficulty or tedious routine in her work. Suddenly Rozy developed some interpersonal and intergroup conflicts with some powerful members of the group. The group did not accept her. Her work became more disagreeable and compelled her to a transfer, to absenteeism and to a resignation.

   Questions:

   1. Although informal groups may lead to several benefits, can these groups prove harmful?
   2. Suggest some measures for Rozy to check the dysfunctions of informal groups?

7. Many organizations offer flex-time programmes that allow associates to choose when they come to work and when they depart. Such programmes can help alleviate work-family role conflict and thereby reduce stress.

   A small manufacturing company held brainstorming sessions among its associates to uncover the cause of stress they were experiencing. The company used feedback from the meetings to change the nature of work rather than change how people responded. Changes included creating more realistic deadlines, generating more supervisory support and giving associates more involvement in making decisions related to matters affecting them.

   Questions:

   1. To remove stress, which policy will you prefer – change the employee or change the workplace. Why?

8. Microsoft has one of the lowest employee turnover rates in the IT industry; however, there is room for improvement. Top talent is currently leaving Microsoft to pursue Internet start-ups or jumping ship to Google. The loss of these key employees represents a serious threat to the

success of the company in the future. Recognizing this problem, Microsoft is actively identifying its top talent and developing ways to make jobs more attractive.

Employee engagement appears to be the buzz in corporate America/Studies show that employees who are engaged are more productive, profitable, and customer focused and less likely to leave the organization. According to Dr. Beverly Kaye, an expert on career issues in the workplace, what employees want is a relationship with their managers, so managers have to act more like coaches, not bosses. Some of the factors that always rank at the top with regard to what gets employees engaged and what they value in a job include career opportunities and development, great people to work with, and a great boss. Microsoft is meeting the challenge of improving worker morale head on to retain its employees.

My Microsoft is a program introduced by the company to provide some of the attractive amenities that other IT companies offer employees. This program will include a wide range of incentives focused on improving the working conditions and culture of the company, such as a set of lifestyle perks and a management development program. Microsoft's new program is an initial step to improve the morale of employees, but only time will tell if this program is attractive enough to retain employees.

Questions:

1. What are the factors causing the brain drain at Microsoft? Explain.

2. Is Microsoft's organizational structure having an impact on its organizational commitment levels? Explain.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	H	H	M	
CO2	H	H	H	H	H	H	H	M	H
CO3	M	H	H	H	H	H	H	M	H
CO4	M	H	H	H	H	M		H	
CO5	H	H	H	H	H		H	M	M

Approved in the BOS Meeting held on 09-07-2020

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	DSC – 2C - Forecasting and Inventory Management	**4**	**4**	**-**	**0**	**Theory**

Introduction: To enable the students to acquire knowledge of inventory processes and forecasting techniques. On successful completion of this course, the students should have understood the principles, functions and process of Inventory Management, Forecasting Techniques with application to E-Logistics.

Course Outcomes:

CO1	:	Acquired knowledge on Inventory Management in Ware housing
CO2	:	Gained knowledge on various Management Techniques
CO3	:	Students learnt the techniques of production and inventory control techniques
CO4	:	Students understood the various inventory management techniques
CO5	:	Ability to Forecast on the Inventory requirements

UNITI: **[12 Periods]**

Introduction to Inventory Management What is inventory management-Why is inventory management important-Role in inventory management in e-commerce supply chain-Inventory management terms-Types of inventory in e-commerce supply chain -Management of inventory in e-commerce supply chain.

UNITII: Basic Inventory Management Techniques and Relevance to E-Commerce Logistics **[12 Periods]**

Economic order quantity-Minimum order quantity –ABC, VED and FSN analysis. -Just-in-time inventory management. -Safety stock inventory. -FIFO and LIFO. -Batch tracking. -Consignment Inventory-Perpetual inventory management.

UNITIII: Key Inventory Management Metrics and Software **[12 Periods]**

Inventory turnover -Safety stock -Reorder point -Backorder rate-Carrying cost of inventory What is inventory management software? - Features of good quality software. -Choosing the correct warehousing management system

UNIT IV: **[12 Periods]**

Forecasting Techniques- Definitions- Qualitative Techniques- Delphi Method, Prediction Method, Historical Life cycle analogy, Executive Opinion. Quantitative Techniques- Time Series Model, Moving average, Casual Models, Seasonal Index.

UNITV: **[12 Periods]**

Quality Management –Fundamentals – Planning for Quantity – Quality Process – Statistical Process Control (SPC) – Quality Assurance – Total Quality management. Bench marking: Meaning - objectives – advantages. ISO: Features - Advantages - Procedure for obtaining ISO.

Text books:

 1. Paneerselvam: Production and Operation Management, Prentice Hall, 2003.**(Unit I to V)**

   2. N.J. Aquilano, R.B. Chase & F.R. Jacob: Operation Management for Competitive Advantage, Tata McGraw –Hill, 9thEdition.

   3.. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3rd edition, 2007

Reference

 1. S.N. Charry; Production and Operation Management, Tata McGraw-Hill, 2000.

2.D.D. Sharma; Total Quality Management, Sultan Chand & Sons, Edition. 2002

3. Simchi-Levi, David, "Designing and Managing Supply Chain", Tata McGraw Hill, 3rd Edition, 2007.

4.David E Mulcahy, "Warehouse Distribution and Operations Handbook, McGraw Hill,6thEdition, 1993.

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	M	H	M	M
CO2	H		H	M	H		H	M	H
CO3	H	H	H	H	H	M	H	M	M
CO4	H	H	H	H		H	H	H	M
CO5	H	H	H	M	M	H	M	H	H

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Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	DSC Practical -2C- Forecasting and Inventory Management	**2**	**4**		**4**	**Practical**

Introduction: this subjects helps students to understand the subject better and they can apply this in their real environment.

Course Outcomes:

CO1	:	Acquired knowledge on Inventory system
CO2	:	Understanding the basic concepts of ABS, XYZ and HML Inventory techniques
CO3	:	Understanding the VED and FSN Inventory control and its applications
CO4	:	Understanding the FSN Analysis
CO5	:	Understanding the FIFO and LIFO model of Inventory control

1. P System and Q System Applications working 2 examples

2. ABC Analysis examples Differences between ABC , XYZ and HML techniques working 2 examples

3. VED and FSN Model of Inventory control working 2 examples

4. EOQ Model of Inventory Control 2 examples without shortages

5. FIFO and LIFO Models and its applications (Understanding the concepts and its applications Theory Only)

H- High   M – Medium   B – Blank

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	M	H	M	M
CO2	H		H	M	H		H	M	H
CO3	H	H	H	H	H	M	H	M	M
CO4	H	H	H	H		H	H	H	M
CO5	H	H	H	M	M	H	M	H	H

Subject Code	Subject Title	Credit	Lecture	Tutorial	Practical	Type
	Allied –Quantitative Techniques	4	5	0	0	Theory

Introduction:

     This course presents a study that enable the students to acquire knowledge of mathematics & statistics and their use in business decision making.

Objective:

     On successful completion of this course, the students should have understood
 Set operations, matrix and Mathematics of Finance and Statistical tools and their applications

CO1	:	To formulate the LPP and solve the LPP
CO2	:	To arrive optimum solutions for transportation for Demand Vs supply
CO3	:	To solve the assignment problem and understanding the application
CO4	:	To know Queuing theory and application of the same
CO5	:	To analyse the net work and project work analysis

UNITI

     Introduction to O.R -Formulation of Linear Programming Problem – Graphical Solutions of LP.P : Feasible solution – Unbounded solution – Infeasible solution - Case study from the above topic.

UNIT II

     Transportation problem: Introduction– North West Corner Rule – Least Cost Method – Vogel's Approximation Method — Balanced and Unbalanced Transportation Problems - Case study from the above topic.

UNITIII

Assignment problem : Balanced Assignment Problems – Hungarian Assignment method - Unbalanced Assignment Problems – Maximization case in Assignment Problem- Case study from the above topic.

UNITIV

     Queuing Theory – Introduction – Queuing system – Characteristics of Queuing
system – symbols and Notation – Classifications of queues – Problems in (M/M/1) : (∞/FIFO);(M/M/1) : (N/FIFO) Models- Case study from the above topic.

UNIT V

     CPM : Basic Components – Rules of Network construction - Network representation - simple problems – Critical Path Analysis - Backward pass - Forward pass - Computation - PERT Network - Case study from the above topic .

Text Book:
 1.P.A.Navanitham, **"**Business Mathematics & Statistics" Jai Publishers,Trichy-21

Approved in the BOS Meeting held on 09-07-2020

2. Business Mathematics by V. K. Kapoor - Sultan chand& sons, Delhi

3. KantiSwarup, P.K. Gupta,Man Mohan-Operations Research, Sultan Chand & Sons, Educational Publishers, New Delhi-2008

ReferenceBooks

1. Sanchetti, D.C and Kapoor, V.K,"Business Mathematics" , Sultan chandCo&Ltd, New Delhi

2.KalavathyS,OperationsResearch,SecondEdition,VikasPublishingHouse,2004.

<div align="center">H – High, M- Medium and L - Low</div>

Course Outcomes	Program Outcomes								
	P01	**PO2**	**P03**	**P04**	**P05**	**P06**	**P07**	**P08**	**P09**
CO1	H	H	H	H	H	M	H	M	M
CO2	H		H	M	H		H	M	H
CO3	H	H	H	H	H	M	H	M	M
CO4	H	H	H	H		H	H	H	M
CO5	H	H	H	M	M	H	M	H	H

Approved in the BOS Meeting held on 09-07-2020