

The Academic Council has approved vide Resolution No 41 in its 9th meeting held on 5 July, 2018 and as per resolution 41E. The Competent Authority Master of Business Administration (MBA) Choice Based Credit System (CBCS) from Session 2018-19 has approved on the same on dated 27/10/18

# SYLLABUS AND SCHEME OF EXAMINATION

## for MASTER OF BUSINESS ADMINISTRATION

Under

Choice Based Credit System (CBCS)

Two-Year Four-Semester (Full-Time) Programme

w.e.f. Session-2018-19



With Amendment  
by Prof. Dr. P.S. Verma

08/10/18

DEPARTMENT OF MANAGEMENT

FACULTY OF COMMERCE AND MANAGEMENT

CHAUDHARY RANBIR SINGH UNIVERSITY, JIND

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### SCHEME AND INSTRUCTIONS FOR MBA EXAMINATION

1. This is an intensive programme of study for two academic sessions.
2. The programme is divided into four semesters and there shall be an examination at the end of each semester.
3. Each paper shall be of 4 Credits until and unless indicated otherwise in the scheme of examinations. Theory classes will be held 4 hours per subject per week. In case of practical papers, theory classes will be held 1 hour per week and one hour per week practical will be held.
4. Every theory course shall carry a total of 100 marks. There shall be 80 marks for semester end examination and 20 marks for internal examination until and unless indicated otherwise.
5. Every theory course shall carry a total of 100 marks. There shall be 80 marks for semester end examination and 20 marks for internal examination until and unless indicated otherwise.
6. In MBA 3<sup>rd</sup> and 4<sup>th</sup> Semester, dual (Major and Minor) specialization would be available to students in MBA and they can choose any two specializations out of Marketing, Finance, and Human Resources Management, The minimum number of students to opt a particular elective paper / specialization is 10.

### CRITERIA FOR INTERNAL ASSESSMENT

The internal assessment of the students (out of 20 marks) shall be as per the criteria given below:

Sr. No.	Components of Minors	Weightage
A)	<b>THEORY COURSES:</b>	
1.	Sessional Test – I	50% = 10 marks
2.	Individual Presentation/Group Discussion/Quiz/Case Study Discussion/ Class Participation	25% = 5 marks
3.	Attendance	
	Less than 65%	0 marks
	Up to 70%	2 marks
	Up to 75%	3 marks
	Up to 80%	4 marks
	Above 80%	5 marks
B)	<b>LAB COURSES:</b>	

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1.	Objective test/MCQ	20 %
2.	Lab. Work / Project	60 %
3.	Viva Voce/Test	20 %

**Note:**

- a) Case study discussion and participation is compulsory in the subjects wherever possible. Concerned Teacher will discuss at least 03 (Three) cases maximum Eight (08) cases in each course.
- b) To the extent possible, sessional test should include the case analysis.

**EXTERNAL EVALUATION**

There shall be a semester-end external examination of 80 marks for all theory courses until and unless indicated otherwise. The external examiner will set ten questions selecting two questions from each unit. The candidate has to attempt five questions in all selecting one question from each unit.

**PRACTICAL EXAMINATIONS**

Practical Examinations shall be conducted jointly by the external and Internal Examiners. Internal examiner will be appointed by Chairman of the concern department of the institute and external examiner will be appointed by the Controller of Examinations on the recommendation of Chairman, Postgraduate Board of Studies and Research (PGBOS&R).

**SUMMER INTERNSHIP REPORT EVALUATION**

All the students will submit their Summer Internship Report in a format as prescribed in the "Detailed Guidelines for Summer Internship" within a period of one month in the concerned department of their institute; this period shall be counted from the last date of completion of their Summer Internship. Students will have to give a presentation on the work done during the internship and his/her performance out of 50 marks will be evaluated on the basis of this presentation by a committee constituted by the Chairman of the Department. The evaluation of the remaining 50 marks shall be made by external examiner appointed by the Controller of Examinations on the recommendation of Chairman, Postgraduate Board of Studies and Research (PGBOS&R).

**PROJECT REPORT**

Every student will be required to submit a research proposal by the end of the Fourth Semester and it will be pursued by him/her under the supervision of an internal supervisor. The completed Project Report in the format as prescribed in the "Detailed Guidelines for Project Report" will be submitted by the students prior to the date of the commencement of the Final Examinations for the Fourth Semester and this date will be notified by the Controller of Examinations, CRSU, Jind.

### PROJECT REPORT EVALUATION

The Project shall be evaluated by External [Project Report evaluation (80 marks)] and Internal (20 marks) Examiners. The internal assessment shall be done by the concern supervisor of the candidate. The external assessment shall be done on the basis of evaluation and comprehensive viva- voce of the project report by an external expert appointed by the University on the recommendations of Chairman, Postgraduate Board of Studies and Research.

### CONDITIONS IN SPECIALIZATION

- The minimum number of students to opt a particular elective paper/specialization is 10.
- During 3<sup>rd</sup> semester and 4<sup>th</sup> semester, dual (Major and Minor) specialization will be available to students and they can opt for any two specializations out of Marketing, Finance, and Human Resources Management. However, combination of specializations once opted in the 3<sup>rd</sup> semester will not be changed in 4<sup>th</sup> semester under any condition.
- Students should opt elective papers in such a way that no paper is repeated. Choosing same paper from different specializations is strictly prohibited.

### ABBREVIATION USED

DSC	Discipline Specific Core Course
DSE	Discipline Specific Elective Course
AECC	Academic Enhancement Compulsory Course
SEEC	Skill Enhancement Elective Course



**SCHEME OF EXAMINATION FOR TWO YEAR MBA PROGRAMME FROM THE SESSION 2018-2019**

**FIRST YEAR  
First Semester**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAC-101	DSC	Principles of Management	5	1	-	4	80	20	-	100
MBAC-102	DSC	Statistical Analysis	5	1	-	4	80	2	-	100
MBAC-103	DSC	Managerial Economics	5	1	-	4	80	20	-	100
MBAC-104	DSC	Financial Accounting	5	1	-	4	80	20	-	100
MBAF-105	DSC	Business Environment	5	1	-	4	80	20	-	100
MBAE-106	SEEC	Business Communication	4	1	-	3	80	20	-	100
MBAE-107	AECC	Computer Applications for Business*	3	1	2	3	60	20	20	100

\* Note: Each question paper shall have six questions. Question no. 1 shall have 10 short-answer type questions, covering all the five units, all of which shall be compulsory and each question shall carry two marks. Question no. 2 to 6 shall have internal choice and shall carry 12 marks each.

**FIRST YEAR****Second Semester**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAC-201	DSC	Organisational Behaviour	5	1	-	4	80	20	-	100
MBAC-202	DSC	Operations Research	5	1	-	4	80	20	-	100
MBAC-203	DSC	Management Accounting	5	1	-	4	80	20	-	100
MBAC-204	DSC	Financial Management	5	1	-	4	80	20	-	100
MBAC-205	DSC	Marketing Management	5	1	-	4	80	20	-	100
MBAC-206	DSC	Human Resource Management	5	1	-	4	80	20	-	100
MBAC-207	DSC	Production and Operations Management	5	1	-	4	80	20	-	100

**SUMMER INTERNSHIP**

Immediately after the completion of the Second semester, the students shall proceed for their Summer Internship (SI) of 6-8 weeks duration. The Summer Internship Report (SIR) prepared after the completion of SI shall be assessed in the third Semester as a Skill Enhancement Elective course (SEEC). The SIR will be submitted by the candidates in the manner as specified in the Ordinance.

**Note:** Each question paper shall have six questions. Question no. 1 shall have 10 short-answer type questions, covering all the five units, all of which shall be compulsory and each question shall carry two marks. Question no. 2 to 6 shall have internal choice and shall carry 12 marks each.



Second Year

Third Semester

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAC-301	DSC	Strategic Management	5	1	-	4	80	20	-	100
MBAC-302	DSC	Business Laws	5	1	-	4	80	20	-	100
MBAC-303	DSC	Business Research Methods	5	1	-					
MBAC-304	SEEC	Summer Training Report*	-	-	-	2	50	50	-	100
		Open Elective Under CBCS								
	DSE	Major Specialisation - Elective paper-I	5	1	-	4	80	20	-	100
	DSE	Major Specialisation - Elective paper-II	5	1	-	4	80	20	-	100
	DSE	Major Specialisation Elective paper-III	5	1	-	4	80	20	-	100
	DSE	Minor Specialisation - Elective paper-I	5	1	-	4	80	20	-	100

**Note:** Each question paper shall have six questions. Question no. 1 shall have 10 short-answer type questions, covering all the five units, all of which shall be compulsory and each question shall carry two marks. Question no. 2 to 6 shall have internal choice and shall carry 12 marks each.

# Summer Internship Report will be evaluated on the basis on presentation & viva-voce taken by a committee constituted by the Chairman of the Department while for external evaluation, it be evaluated by an external examiner(s) appointed by Controller of Examinations on the recommendation of Postgraduate Board of Studies and Research.





Second Year

Fourth Semester

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAC-401	DSC	Entrepreneurship Development	5	1	-	4	80	20	-	100
MBAC-402	DSC	Indian Ethos and Business Ethics	5	1	-	4	80	20	-	100
MBAC-403	DSC	Supply chain Management	5	1	-	4	80	20	-	100
MBAC-404	DSE	Project Report	5	1	-	4	80	20	-	100
MBAC-405	DSE	Comprehensive Viva-Voce	2	-	-	2	100	-	-	100
		Open Elective Under CBCS								
	DSE	Major Specialisation - Elective paper-I	5	1	-	4	80	20	-	100
	DSE	Major Specialisation - Elective paper-II	5	1	-	4	80	20	-	100
	DSE	Major Specialisation Elective paper-III	5	1	-	4	80	20	-	100
	DSE	Minor Specialisation - Elective paper-I	5	1	-	4	80	20	-	100

Students are required to choose any three optional courses from form major specialisation and one optional course from minor specialisation. The specialization area opted in 3<sup>rd</sup> Semester would remain same in 4<sup>th</sup> semester also.

Project Report (MBAC-404) is elective course for major specialisation in 4<sup>th</sup> semester. The student can opt MBAC - 404 as a elective paper for major specialisation. The topic of the Project Report (Code MBAC-404) shall be finalized in 3<sup>rd</sup> semester by a Committee of the faculty members to be constituted by Chairperson of the department after presentation by candidate before the Committee. Project Report will be evaluated by an external examiner appointed by the University on the recommendation of the Postgraduate Board of Studies and Research.

Note: Each question paper shall have six questions. Question no. 1 shall have 10 short-answer type questions, covering all the five units, all of which shall be compulsory and each question shall carry two marks. Question no. 2 to 6 shall have internal choice and shall carry 12 marks each.





**SPECIALISATIONS OFFERED IN THIRD AND FOURTH SEMESTERS**

**FINANCE:**

**Third Semester:**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAFNE-311	DSE	Financial Institutions and Markets	5	1	-	4	80	20	-	100
MBAFNE-312	DSE	Security Analysis and Portfolio Management	5	1	-	4	80	20	-	100
MBAFNE-313	DSE	Project Appraisal and Valuation	5	1	-	4	80	20	-	100
MBAFNE-314	DSE	Corporate Tax Planning	5	1	-	4	80	20	-	100

**Fourth Semester**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAFNE-411	DSE	Financial Derivatives	5	1	-	4	80	20	-	100
MBAFNE-412	DSE	Insurance and Risk Management	5	1	-	4	80	20	-	100
MBAFNE-413	DSE	Corporate Restructuring	5	1	-	4	80	20	-	100
MBAFNE-414	DSE	International finance	5	1	-	4	80	20	-	100

**MARKETING**

**Third Semester:**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAME-321	DSE	Consumer Behavior	5	1	-	4	80	20	-	100
MBAME-322	DSE	Retail Management	5	1	-	4	80	20	-	100
MBAME-323	DSE	Marketing Research	5	1	-	4	80	20	-	100
MBAME-324	DSE	Rural Marketing	5	1	-	4	80	20	-	100

**Fourth Semester:**

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAME-421	DSE	Product & Brand Management	5	1	-	4	80	20	-	100
MBAME-422	DSE	Services Marketing	5	1	-	4	80	20	-	100
MBAME-423	DSE	International Marketing	5	1	-	4	80	20	-	100
MBAME-424	DSE	Integrated Marketing Communications	5	1	-	4	80	20	-	100

**HUMAN RESOURCE MANAGEMENT (HRM):**

Third Semester:

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAHRE-331	DSE	Organizational Change and Development	5	1	-	4	80	20	-	100
MBAHRE-332	DSE	Cross Cultural Management	5	1	-	4	80	20	-	100
MBAHRE-333	DSE	Performance Management	5	1	-	4	80	20	-	100
MBAHRE-334	DSE	Strategic HRM	5	1	-	4	80	20	-	100

Fourth Semester

Course Code	Nature	Title of Course	Periods			Total Credits	External Marks	Internal Marks	Practical marks	Total Marks
			Lecture	Tutorial	Practical					
MBAHRE-431	DSE	Human Resource Development: Strategies and Systems	5	1	-	4	80	20	-	100
MBAHRE-432	DSE	Industrial Relations and Labor Laws	5	1	-	4	80	20	-	100
MBAHRE-433	DSE	Compensation Management	5	1	-	4	80	20	-	100
MBAHRE-434	DSE	Corporate Leadership	5	1	-	4	80	20	-	100



**Instructions for the conduct of Practical, Comprehensive Viva-Voce, Workshop etc. for Two Year MBA Programme**

Conduct of Computer practical, Comprehensive Viva-voce, Workshop etc. wherever applicable, shall be done by a Board of examiners as per provisions in the concerned Ordinances of all programmes of MBA on invitation of the Chairperson of the Department. The external examiner in the concerned course only shall be invited , who is at present working as faculty on permanent basis against sanctioned post, approved by the University having experience of not less than FIVE years in the University or a Institute/ College affiliated to University for the conduct of computer practical, comprehensive viva-voce, workshop etc.

The concerned Chairperson of the Department shall request the examiner at his own level and shall make necessary arrangements for the smooth conduct of the examinations as stipulated in the Ordinances. The Chairperson shall ensure to upload the marks awarded by the examiner(s) on the University website and also submit the hard copy of the award list along with attendance of the candidates and eligibility proof of examiner duly signed by both the examiner and Chairperson to the office of the Controller of Examinations within 15 days of the conduct of examinations.

The concerned Chairperson is also required to make payment of TA/DA and examination remuneration to the examiner on the spot as per University norms and the same will be reimbursed by the University after submitting the bills to the Controller of Examinations duly verified by the concerned Chairperson of the Department.



# SEMESTER- I

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## Principles of Management

### MBAC-101

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** *The objective of this paper is to familiarize the students with the basic management concepts, and process in the organization.*

**Unit I-Introduction:** Concept, Need for Study, Managerial Functions – An overview; Co-ordination: Essence of Managership; Evolution of the Management Thought: Classical Approach-Taylor, Fayol, Neo-Classical and Human Relations Approaches – Mayo, Hawthorne Experiments, Behavioural Approach, Systems Approach, Contingency Approach – Lawrence & Lorsch, MBO - Peter F. Drucker, Re-engineering - Hammer and Champy.

**Unit II- Planning:** Types of Plan: An overview to highlight the differences.; Strategic planning: Concept, process, Importance and limitations.; Environmental Analysis and diagnosis (Internal and external environment): Importance and Techniques, Business environment; Concept and Components ;Decision-making: concept, importance; Committee and Group Decision-making, Process, Perfect rationality and bounded rationality, Techniques.

**Unit III Organising:** Concept and process of organising – An overview, Span of management, Different types of authority (line, staff and functional), Decentralisation, Delegation of authority; Formal and Informal Structure; Network Organisation Structure

**Unit IV-Staffing and Leading:** Staffing, Motivation, Leadership and Communication.

**Unit V- Control:** Concept, Process, Limitations, Principles of Effective Control, Major Techniques of control - Ratio Analysis, ROI, Budgetary Control.; Emerging issues in Management

#### Suggested Readings:

1. Mark V. Cannice, Heinz Wehrich, and Harold Koontz, *Management: An International and Leadership Perspective*, McGraw Hill Education.
2. Stephen P Robbins and Madhushree Nanda Agrawal, *Fundamentals of Management: Essential Concepts and Applications*, Pearson Education.
3. Griffin, *Management Principles and Application*, Cengage Learning
4. Robert Kreitner, *Management Theory and Application*, Cengage Learning
5. Peter F Drucker, *Practice of Management*, Mercury Books, London

**Note:** Latest edition of text books may be used.





**Statistical Analysis**  
**MBAC-102**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

*Objective: The objective of the course is to acquaint students with some of the important statistical techniques for managerial decision making. The emphasis will be on their applications to business and economic situations.*

**Unit I- Statistical Data and Descriptive Statistics:**

- a) Nature and Classification of data: univariate, bivariate and multivariate data; time-series and cross-sectional data;
- b) Measures of Central Tendency; Mathematical averages including arithmetic mean, geometric mean and harmonic mean. Properties and applications, Positional Averages: Mode and Median (and other partition values including quartiles, deciles, and percentiles) (including graphic determination);
- c) Measures of Variation: absolute and relative, Range, quartile deviation, mean deviation, standard deviation, and their coefficients, Properties of standard deviation/variance;
- d) Skewness: Meaning, Measurement using Karl Pearson and Bowley's measures; Concept of Kurtosis

**Unit II-Probability and Probability Distributions:**

- a) Theory of Probability. Approaches to the calculation of probability; Calculation of event probabilities. Addition and multiplication laws of probability (Proof not required); Conditional probability and Bayes' Theorem (Proof not required).
- b) Expectation and variance of a random variable;
- c) Probability distributions:
  - i. Binomial distribution: Probability distribution function, Constants, Shape, Fitting of binomial distribution
  - ii. Poisson distribution: Probability function, (including Poisson approximation to binomial distribution), Constants, Fitting of Poisson distribution
  - iii. Normal distribution: Probability distribution function, Properties of normal curve, Calculation of probabilities

**Unit III- Simple Correlation and Regression Analysis:**

- a) Correlation Analysis: Meaning of Correlation: simple, multiple and partial; linear and non-linear, Correlation and Causation, Scatter diagram, Pearson's co-efficient of correlation; calculation and properties (Proof not required). Correlation and Probable error; Rank Correlation;
- b) Regression Analysis: Principle of least squares and regression lines, Regression equations and estimation; Properties of regression coefficients; Relationship between Correlation and Regression coefficients; Standard Error of Estimate and its use in interpreting the results.

**Unit IV- Index Numbers and Time Series Analysis:**

- a) **Index Numbers:** Meaning and uses of index numbers; Construction of index numbers: fixed and chain base: univariate and composite. Aggregative and average of relatives – simple and weighted Tests of adequacy of index numbers, Base shifting, splicing and deflating. Problems in

- the construction of index numbers; Construction of consumer price indices: Important share price indices, including BSE SENSEX and NSE NIFTY.;
- b) **Time Series Analysis:** Components of time series; Additive and multiplicative models; Trend analysis: Fitting of trend line using principle of least squares – linear, second degree parabola and exponential. Conversion of annual linear trend equation to quarterly/monthly basis and vice-versa; Moving averages;
  - c) **Seasonal variations:** Calculation of Seasonal Indices using Simple averages, Ratio-to-trend, and Ratio-to-moving averages methods. Uses of Seasonal Indices

#### UNIT V-

a) **Statistical Inference:** Test of Hypotheses: Sampling tests – Large and small Sample tests – Z-Test, T-Test;

b) **Analysis of Variance:** Introduction, assumptions, Techniques of Analysis of Variance- one way classification and two way classifications. F-Test. Non-Parametric Tests: Sign-Test, Wilcoxon Sign – Rank test, Wald – Wolfowitz test, Kruskal Wallis – H Test and The Mann Whitney – U-Test, Median Test, Run Test.

**Practical Lab:** The students will be familiarized with software (Spreadsheet and/or SPSS) and the statistical and other functions contained therein related to formation of frequency distributions and Calculation of averages, measures of Dispersion and variation, correlation and regression coefficient.

#### Suggested Readings:

1. Vohra N. D., *Business Statistics*, McGraw Hill Education.
2. Heinz, Kohler: *Statistics for Business & Economics*, Harper Collins.
3. Levin, Richard, David S. Rubin, Sanjay Rastogi, and HM Siddiqui. *Statistics for Management*. 7th ed., Pearson Education.
4. David M. Levine, Mark L. Berenson, Timothy C. Krehbiel, P. K. Viswanathan, *Business Statistics: A First Course*, Pearson Education.
5. Siegel Andrew F. *Practical Business Statistics*. McGraw Hill Education.
6. Murray R Spiegel, Larry J. Stephens, Narinder Kumar., *Statistics (Schaum's Outline Series)*, McGraw Hill Education.
7. Gupta, S.C. *Fundamentals of Statistics*. Himalaya Publishing House.
8. Anderson, Sweeney, and Williams, *Statistics for Students of Economics and Business*, Cengage Learning

**Note:** Latest edition of the readings may be used



**Managerial Economics**  
**MBAC-103**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

*Objective: The objective of this course is to acquaint the students with the application of economics principles, tools and techniques in managerial decision making.*

**Unit I: Introduction:** Nature, Scope and Significance of Managerial Economics, its Relationship with other Disciplines, Role of Managerial Economics in Decision Making. Fundamental economics concepts: Theory of demand and consumer equilibrium-utility and indifference curve approach;

**Unit II: Demand Analysis:** Demand function; Elasticity of demand and its significance in managerial decision making; Demand forecasting and its techniques.

**Unit III: Production Function:** Short Run and Long Run Production Analysis, Iso-quant, Optimal Combination of Inputs, Empirical Estimation of Production Functions; Theory of Cost: Traditional and Modern Theory of Cost in Short and Long Runs, Economics of Scale and Economies of Scope, Empirical Estimation of Cost Function; Behaviour of Firm under various market situations: Prisoner's Dilemma – Price ad Non-price Competition.

**Unit IV: Market Structure:** Price and output determination under perfect competition, monopoly, monopolistic competition and oligopoly.

**Unit V: Pricing Practices:** Pricing of multiple Products, Price Discrimination, International Price Discrimination and Dumping, Transfer Pricing.

**Suggested Readings:**

1. *Craig H. Peterson, W. Cris Lewis, and Sudhir K. Jain's: Managerial Economics – Fourth Edition, Pearson.*
2. *Gupta G.S.: Managerial Economics, 2<sup>nd</sup> Edition.*
3. *Salvatore, Managerial Economics in Global Economy, Thomson Learning.*
4. *Dean, Joel: Managerial Economics, Prentice Hall, Delhi.*
5. *Koutsoyiannis A., Modern Micro Economics, MacMillan, 2000*

**Note: Latest edition of the readings may be used.**



**Financial Accounting**  
**MBAC-104**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objectives:** *The objective of this paper is to help students to acquire conceptual knowledge of the financial accounting and to impart skills for recording various kinds of business transactions.*

**Unit I- Theoretical Framework:** Accounting as an information system, the users of financial accounting information and their needs. Qualitative characteristics of accounting, information, Functions, advantages and limitations of accounting, Branches of accounting and bases of accounting. The nature of financial accounting principles – Basic concepts and conventions; Financial accounting standards: Concept, benefits, procedure for issuing accounting standards in India. International Financial Reporting Standards (IFRS): - Need and procedures: An overview.

**Unit II- Business Income:** Measurement of business income-Net income: the accounting period, the continuity doctrine and matching concept. Objectives of measurement. Revenue recognition: Recognition of expenses.

**The nature of depreciation:** The accounting concept of depreciation. Factors in the measurement of depreciation. Methods of computing depreciation: straight line method and diminishing balance method; Disposal of depreciable assets-change of method.

**Inventories:** Meaning, significance of inventory valuation. Inventory Record Systems: periodic and perpetual. Methods: FIFO, LIFO and Weighted Average. Capital and revenue expenditures and receipts, Preparation of final accounts with adjustments.

**Unit III-Accounting for Hire-Purchase and Installment Systems:** Transactions, Journal entries and ledger accounts in the books of Hire Vendors and Hire purchaser for large value items including Default and repossession.

**Unit IV-Accounting for Branches:** Concept of dependent branches; accounting aspects; debtors system, stock and debtors system, branch final accounts system and whole sale basis system. Independent branches: concept of accounting.

**Unit V-Accounting for Dissolution of Partnership Firm:** Accounting of Dissolution of the Partnership Firm Including Insolvency of partners, sale to a limited company and piecemeal distribution.

**Note:**

1. The relevant Indian Accounting Standards in line with the IFRS for all the above topics should be covered.
2. Any revision of relevant Indian Accounting Standard would become applicable immediately.

**Suggested Readings:**

1. Robert N Anthony, David Hawkins, Kenneth A. Merchant, *Accounting: Text and Cases*. McGraw-Hill Education, 13th Ed. 2013.
2. Charles T. Horngren and Donna Philbrick, *Introduction to Financial Accounting*, Pearson Education.
3. J.R. Monga, *Financial Accounting: Concepts and Applications*. Mayur Paper Backs, New Delhi.
4. M.C.Shukla, T.S. Grewal and S.C.Gupta. *Advanced Accounts. Vol.-I*. S. Chand & Co., New Delhi.
5. S.N. Maheshwari, and. S. K. Maheshwari. *Financial Accounting*. Vikas Publishing House, New Delhi.
6. Deepak Sehgal. *Financial Accounting*. Vikas Publishing H House, New Delhi.
7. Goldwin, Alderman and Sanyal, *Financial Accounting*, Cengage Learning.
8. *Compendium of Statements and Standards of Accounting*. The Institute of Chartered Accountants of India, New Delhi

**Note:** Latest edition of text books may be used.

**Business Environment MBAC-105**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** *The main objective of this course work is to find out changing pattern of business and make strategy accordingly.*

**Unit I- Business Environment:** Concept of Business Environment and its significance, Elements of environment internal and external; Techniques of environmental scanning and monitoring. Consumerism in India; Consumer Protection Act.1986, Competition Policy and Competition Act. 2002; Business environment challenges.

**Unit II- Economic Reforms in India:** (LPG)-Liberalization, Privatization and Disinvestment of Public Enterprises, Globalization. Fiscal Policy; Monetary Policy; Problem of NPA in the Banking Sector; SEBI functions, Objectives and Powers;

**Unit III- Government Business Relationship:** Roles of government in business; Economic Implications of Indian Constitution- Preamble, Directive Principles of State Policy, Fundamental Rights, Centre-state relationship; Foreign Investment Policy; FEMA 1999.

**Unit IV- Small Scale Industries :** Importance, Problems and Policies; Multinational Corporations and its role; EXIM Policy (Latest) RTI Act. 2005 and its salient features.

**Unit V- WTO:** Origin, Objectives, Organization Structure and Functioning – WTO India. Prominent Economic Groupings and their relevance.

**Suggested Readings:-**

1. Justin Paul, *Business Environment*, McGraw Hill Education (India) Private Limited
2. Puri and Mishra, *Indian Economy*, Himalaya Publishing House, Mumbai
3. Fransis Cherunilam – *Business Environment* – Himalya Publishing House.
4. Aswathappa, K: *Legal environment of Business*, Himalaya Publication, delhi.
5. Chakravarty, S: *Development Planning*, Oxford University Press, Delhi.
6. Ghosh, Biswanath: *Economic environment of Business*, Vikas Pub., New Delhi.

**Note:** Latest edition of the readings may be used.



**Business Communication**  
**MBAE-106**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** The main objective of the course to equipping the students with the necessary techniques and skills of communication to inform others inspire them and enlist their activity and willing cooperation in the performance of their jobs.

**Unit I-Introduction-** Meaning, role, functions and importance of communication in Business Organisations; Communication Process; Principles of Business Communication; Barriers to Communication and strategies to overcome the barriers; Reading skills; Listening skills.

**Unit II- Types of Communication-** Formal and Informal communication, Verbal and Non-verbal communication, Oral and Written communication.

**Unit III- Business Letters-** Format and layout of business letter, Types of business letters; Internal Communication- Circulars, Memos, Office notes, Representations, Reminders, Employee Newsletters,

**Unit IV-Interactive Communication-** Meetings, Conferences, Interview & Group Discussion, Public Speech; Presentation skills; Cross cultural communication- Problems of cultural differences; Techniques of communicating across cultures; Role of technology in communication, Electronic communication.

**Unit V-Report Writing-** Types of reports, Essentials of good report writing, steps in report writing, Synopsis writing, preparing a resume.

**Suggested Readings:**

1. Courtland L. Bovee, John V. Thill & Roshan Lal Raina. Schatzman, *Business Communication Today*, Pearson Education.
2. Shirley Taylor, *Communication for Business: A Practical Approach*, 4<sup>th</sup> Ed. Pearson Education
3. Raymond V. Lesikar & Marie E. Flatley, *Basic Business Communication*, Tata McGraw- Hill Publishing Co. Ltd.
4. Herta A. Murphy , Herbert W. Hildebrandt, Jane P. Thomas. *Effective Business Communications*, 7<sup>th</sup> Ed. McGraw-Hill.

**Note:** Latest edition of the readings may be used.





**MBAE-107**

**Computer Applications for Business**

Theory Exam: 60  
Practical Exam: 20  
Internal Assessment: 20  
Total Marks: 100

**Objective:** *The main objective of this course work is to provide basic knowledge of computer with its practical application in business.*

**Unit I- Introduction:**

- a) **Personal Computer:** PC and its main components, hardware configuration, CPU and clock speed, RAM and secondary storage devices, other peripherals used with PC; factors influencing PC performance; PC as a virtual office.;
- b) **Computer Hardware:** computer system as information processing system; Computer system differences- types of computer systems, hardware options CPU, input devices, output devices, storage devices, communication devices, configuration of hardware devices and their applications.

**Unit II- Word Processing:** Introduction and working with MS-Word in MS Office; basic commands in word: formatting, section break, header footer, page border, handling picture, automatic table content, automatic list of tables and figures, footnote and endnote, comment and track changes, bibliography.

**Unit III-**

- a) **Modern Information Technology:** Basic idea of Local Area Networks (LAN) and Wide Area Networks (WAN); E-mail; Internet technologies, access devices, concept of a World Wide Web and Internet browsing; Multimedia;
- b) **MS Excel:** Working with excel- data entry in MS excel, making pivot table, charts and graphs, functions- mean, median, mode, standard deviation in excel, correlation and regression, ANOVA.

**Unit IV- Introduction to Operating systems:** Software needs, operating systems, application software's, programming languages; DOS; Windows- window explorer, print manager., control panel, paintbrush, calculator, desk top, my computer, settings, find, run; UNLX.

**Unit V-Presentation with Power-Point:** creating presentations the easy way, inserting chart and tables, inserting hyperlink, Introduction to Statistical Packages (SPSS): Managing data, Graphs, Frequencies and descriptive Statistics.

**Practical**

- Solving business problems using MS-Word, MS-Excel, MS-Access.
- Making pivot table, charts and graphs, functions- mean, median, mode, standard deviation in excel, correlation and regression, ANOVA.

**Suggested Readings:**

1. Pradeep K Sinha, (2010) *Computer Fundamentals*, Bpb Publications



2. Bajaj, Kamlesh K and Debjani Nag: *E-commerce – The Cutting Edge of Business*, Tata McGraw Hill (P) Ltd., New Delhi.
3. Greenstein, *Electronic Commerce*, Tata McGraw Hill, New Delhi
4. Leon, Alexis, *Fundamental of Information Technology*, Vikas Publication House (P) Ltd., New Delhi
5. Mansfield, Ron, *The Compact Guide to Microsoft Office*, BPB Publication, Delhi.
6. Norton, Peter: *Introduction to Computer 4/E*, Tata McGraw Hill (P) Ltd., New Delhi.

**Note:** Latest edition of the readings may be used.



# SEMESTER- II



**Organizational Behaviour**  
**MBAC-201**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** The main objective of this paper is to make the students familiarize with the human behavior in an organization.

**Unit I- Organisational Behaviour:** Concepts and Significance; Human Relations and Organisational Behaviour – Historical Development of Organisational Behaviour; Meaning and of Organisational Behaviour; Features of OB; Contributing Disciplines to OB; Emergence of HR and OB, Approaches to Organisational Behaviour; Scope of OB; Basic concepts of OB; Determinants of Organisational Behaviour; Significance of OB.

**Unit II-**

- a) **Personality:** Concept of personality; Major Determinants of Personality; Biological Contribution; Socialization; Culture; Situational Factors; Major Personality Attributes influencing Organisational Behaviour; Theories of Personality;
- b) **Attitude:** Meaning, components, functions, formation, changing of attitude, prejudice and attitude.

**Unit III-**

- a) **Perception:** Nature and Importance of Perception, Meaning, and process of Perception Perceptual Selectivity; Factor affecting Perception Distortion in Perception; Managerial Implications of Perception;
- b) **Learning:** Theories of Learning; Modeling; Shaping Behaviour; Learning and Organisational Behaviour.

**Unit IV-**

- a) **Group Dynamics:** Meaning; Components of Group Dynamics; Group Norms; Group Role; Group Status; Group Size; Group Leadership; Group Composition; Proxemics and Group Dynamics;
- b) **Group Cohesiveness:** Determinants and Consequences of Group Cohesiveness; Relationship between Group Cohesiveness and Productivity.

**Unit V-**

- a) **Transactional Analysis:** Introduction; Concept of T.A.; Scope of Transactional Analysis; Analysis of Self-awareness; Analysis of Ego States; Analysis of Life Positions; Analysis of Games; Analysis of Stroking, Benefits of Transactional Analysis;
- b) **Organisational Conflict:** types of conflict Dynamics and management; sources patterns.

**Suggested Readings:**

1. Robbins, Stephen P., Tim Judge, and Katherine Breward. *Essentials of organizational behavior*, Pearson, Prentice Hall.
2. Luthans, Fred, *Organizational Behaviour*, Irwin McGraw-Hill International edition, 8th ed.
3. Newstrom, J.W., *Organizational Behavior*, New Delhi: McGraw-Hill.
4. McShane, L., & Gilnow, M. V., *Organizational Behaviour*, New Delhi: McGraw-Hill.
5. Greenberg, Jerald and Baron, Robert A., *Behaviour in Organizations*, Prentice-Hall of India Private Ltd., New Delhi, 2003, 8<sup>th</sup> Ed.
6. Paul Hersey, Kenneth H. Blanchard, Dewey E. Johnson. *Management of Organizational Behavior*, 10th Ed.

**Note:** Latest edition of the readings may be used.

## Operation Research

### MBAC-202

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** To familiarize the students with major operation research techniques and to equip them to make optimal managerial decisions.

#### Unit I

- a) **Operations Research:** Nature, scope, and applications;
- b) **Linear Programming:** Mathematical formulation, Graphical Method and Simplex Method of Solving LP problem; Special cases: Infeasible Solution, Degeneracy, Unboundedness, and Multiple-Optimal Solutions; Sensitivity analysis; Duality; Business applications of linear programming

#### Unit II

- a) **Transportation Technique:** Major methods of finding initial basic feasible solution, Stepping-stone and MODI methods for finding optimal solution; Special cases of transportation problem;
- b) **Assignment Problem:** Algorithm, Special cases,

**Unit III- Inventory Control:** Concept, functions, and significance of inventory; major decisions; relevant costs; Classical EOQ Model: limitations, extensions of the classical EOQ model; gradual receipt; application of EOQ model in production process; quantity discount; Planned stock-out; Re-order level; ABC analysis.

#### Unit IV

- a) **Queuing Theory:** Introduction; Structure of queuing system; characteristics of M/M/1 queuing model; Applications of queuing theory;
- b) **Game Theory:** Concept of game; 'two-person', 'zero-sum' games; pure and mixed strategy games; rule of dominance; major methods of solving game theory problems; Limitations and applications of game theory.

#### Unit V Project Management:

PERT and CPM and their applications, PERT/Cost; Resource leveling.

#### Suggested Readings:

1. Vohra, N.D; *Quantitative Techniques in Management*; MacGraw hill., New Delhi.
2. Anderson, Sweeny and Williams, *Quantitative Methods for Business*, Thomson learning.
3. Frederick Hiller and Gerald Lieberman, *Operations Research*, Tata MacGraw Hill, New Delhi.
4. Hamdy A. Taha, *Operations Research: An Introduction*, 10<sup>th</sup> Ed, Pearson Education.

**Note:** Latest edition of text books may be used.



## Management Accounting

### MBAC-203

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** The objective of the course is to enable students to acquire Knowledge of concepts, and techniques of management accounting and to make the students develop competence for their usage in managerial decision making and control.

**Unit I- Introduction:** Meaning, Objectives, Nature and Scope of management accounting, Difference between cost accounting and management accounting, Cost control and Cost reduction, Cost management; Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control, objectives, merits, and limitations. Budget administration. Functional budgets. Fixed and flexible budgets. Zero base budgeting. Programme and performance budgeting.

**Unit II- Standard Costing:** Standard Costing and Variance Analysis: Meaning of standard cost and standard costing, advantages, limitations and applications. Variance Analysis – material, labour, overheads and sales variances, Disposition of Variances, Control Ratios.

**Unit III-Marginal Costing:** Absorption versus Variable Costing: Distinctive features and income determination. Cost-Volume Profit Analysis, Profit / Volume ratio. Break-even analysis-algebraic and graphic methods. Angle of incidence, margin of safety, Key factor, determination of cost indifference point.

**Unit IV- Decision Making:** Steps in Decision Making Process, Concept of Relevant Costs and Benefits, Various short term decision making situations – profitable product mix, Acceptance or Rejection of special/ export offers, Make or buy. Addition or Elimination of a product line, sell or process further, operate or shut down. Pricing Decisions: Major factors influencing pricing decisions, various methods of pricing

**Unit V- Contemporary issues:** Responsibility Accounting: Concept, Significance, Different Responsibility Centres, Divisional Performance Measurement: Financial and Non-Financial measures. Transfer Pricing Value Chain analysis; Activity Based Accounting; Target and Life Cycle Costing.

#### Suggested Readings:

1. Charles T. Horngren, Gary L. Sundem, Dave Burgstahler, Jeff O. Schatzberg. *Introduction to Management Accounting*, Pearson Education.
2. Anthony A. Atkinson, Robert S. Kaplan, Ella Mae Matsumura, S. Mark Young. *Management Accounting*. Dorling Kindersley (India) Pvt. Ltd.
3. Ronald W. Hilton and David E. Platt. *Managerial Accounting: Creating Value in a Global Business Environment*, McGraw Hill Education.
4. Arora, M.N. *Management Accounting*. Vikas Publishing House, New Delhi.
5. Maheshwari, S.N. and S.N. Mittal. *Management Accounting*. Shree Mahavir Book Depot, New Delhi.

**Note:** Latest edition of text books may be used.



## Financial Management

### MBAC-204

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objective:** The objective of this paper is to familiarize and acquaint the students with the analytical techniques that are used for taking decisions regarding financial matters in business.

**Unit I- Introduction:** An Overview and Goals of financial Management, Finance Functions, Interface between Finance and Other Business Functions, Financial Planning: Introduction, Objectives, Benefits, Guidelines, Steps in Financial Planning, Factors Affecting Financial Planning, Estimation of Financial Requirements of Firm, Capitalization. Time Value of Money: Future Value, Present Value.

**Unit II- Cost of Capital and Leverage:** Meaning of Cost of Capital, Cost of Different Sources of Finance Weighted Average Cost of Capital. Leverage: Introduction, Operating Leverage, Application of operating leverage, Financial Leverage, Combined Leverage.

**Unit III- Capital Structure and Dividend Policy:** Introduction Features of an Ideal Capital Structure, Factors Affecting Capital Structure, Theories of Capital Structure. Dividend Decisions: Introduction, Traditional Approach, Dividend Relevance Model, Miller and Modigliani Model, Stability of Dividends, Forms of Dividends; Legal, taxes and procedural aspects of dividends.

**Unit IV- Capital Budgeting:** Introduction, Importance of Capital Budgeting, Complexities Involved in Capital Budgeting Decisions, Phases of Capital Expenditure Decisions, Identification of Investment Opportunities, Proposals, Capital Budgeting Process, Investment evaluation, Appraisal Criteria. Risk Analysis in Capital Budgeting, Capital Rationing.

**Unit V-Corporate Restructuring:** Mergers and Acquisitions, Take-overs, Amalgamation, Leverage Buy-outs, Management Buy Out Financial Restructuring: Share Split, Consolidation, Cancellation of Paid Up Capital, Corporate Failures and Liquidations.

**Note:** Question paper will contain 50% Numerical questions and 50% Theoretical questions.

#### Suggested Readings:

1. Van Horne, James C., *Financial Management and Policy*, Prentice Hall of India 12th Ed, 2008.
2. Ross S.A., R.W. Westerfield and J. Jaffe, *Corporate Finance*, Tata, McGraw Hill.
3. Brealey R.A. and S.C. Myers, *Principles of Corporate Finance*, McGraw Hill, 6 th Ed.
4. Damodaran, A, "*Corporate Finance: Theory and Practice*". John Wiley & Sons, 2 nd Ed., 2001
5. Prashna Chandra: *Financial Management*. Tata, McGraw Hill.
6. Pandey, I.M: *Financial Management*, Vikas Publication.
7. Khan, M.Y. and P.K.Jain, *Financial Management: Text and Problems*, Tata McGraw Hill

**Note:** Latest edition of the readings may be used

**Marketing Management**  
**MBAC-205**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Objectives:** The objective of this paper is to familiarize with marketing management concepts and components of marketing.

**Unit I-Introduction:** Nature and significance of marketing, marketing management, evolution marketing. Marketing management orientation "the production concept, product concept, selling concept, selling v/s marketing, societal marketing concept and holistic marketing. Marketing mix. Marketing environment in India.

**Unit II- Identifying and selecting market:**

- a) Consumer Behaviour: determinants of consumer behavior. Consumer buying decision making process;
- b) Market segmentation: basic of market segmentation, Market targeting and positioning;
- c) Marketing research and Marketing information.

**Unit III-Product Decision:** Product Classification, Product mix strategy. Branding, packaging and labeling Product support services, New product development process. Product life cycle. Marketing of services

**Unit IV-Pricing and distribution decision:**

- a) Pricing decision: Price determination Method pricing strategies, free determination;
- b) Distribution channels and physical distribution decision. Selecting, management of distribution channels, distribution logistics. Retailing and wholeselling.

**Unit V- Production:**

- a) **Production decision:** Production mix. Advertising, Personal selling, public relation and publicity, and sales promotion;
- b) **Contemporary issues in marketing:** consumer protection, social marketing, Rural marketing, Online marketing, Social and Ethical aspects of marketing.

**Reading Suggestion:**

1. Philip Kotler, Gary Armstrong, and Professr Agnihotri, *Principle of Marketing*, 17<sup>th</sup> ed. (2018) Pearson Education, Inc. (USA), Indian edition by Pearson India Educational Services, Noida.
2. Michael J. Etzel, Bruce J. Walker, William J. Stanton, and Ajay Pandit, *Marketing*, 14<sup>th</sup> ed. (2007) Spl. Indian edition, 10<sup>th</sup> reprint (2015), McGraw Hill Education, New Delhi.
3. William D, Perreault, Jr., and E. Jerome McCarthy, *Basic Marketing: A Global- Managerial Approach*, 15<sup>th</sup> ed. (2006), Special Indian edition, 8<sup>th</sup> reprint (2015), McGraw Hill Education, New Delhi.
4. Dhruv Grewal and Michael Boker, *Marketing*, 5<sup>th</sup> ed. (2017), McGraw Hill Education, New Delhi.
5. William G Zikmund and Michael D. Amico, *Marketing*, 7<sup>th</sup> ed. (2001).
6. Louis E Boone and David L. Kurtz, *Contemporary Marketing*, 15<sup>th</sup> ed., Cengage Learning, Delhi.

**Note:** Latest edition of text books may be used.

**Human Resources Management**  
**MBAC-206**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

*Objectives: The objective of this paper is to acquaint the students with Human Resource Management concepts and terms.*

**Unit I-Introduction:** Human Resource Management: Concept and Functions, Role, Status and competencies of HR Manager, HR Policies, Evolution of HRM, HRM vs HRD. Emerging Challenges of Human Resource Management; Workforce diversity; Empowerment; Downsizing; VRS; Human Resource Information System

**Unit II- Acquisition of Human Resource:** Human Resource Planning- Quantitative and Qualitative dimensions; job analysis – job description and job specification; Recruitment – Concept and sources; Selection – Concept and process; test and interview; placement and induction

**Unit III- Training and Development:** Concept and Importance; Identifying Training and Development Needs; Designing Training Programs; Role-Specific and Competency-Based Training; Evaluating Training Effectiveness; Training Process Outsourcing; Management Development; Career Development.

**Unit IV- Performance Appraisal:** Nature, objectives and importance; Modern techniques of performance appraisal; potential appraisal and employee counseling; job changes - transfers and promotions; compensation: concept and policies; job evaluation; methods of wage payments and incentive plans; fringe benefits; performance linked compensation.

**Unit V- Maintenance of Human Resource:** Employee health and safety; employee welfare; social security; Employer-Employee relations- an overview; grievance-handling and redressal; Industrial Disputes: causes and settlement machinery.

**Suggested Readings: -**

1. Robins A. David, *Human Resource Management*, Prentice Hall of India, New Delhi.
2. Flippo, Edwin B, *Principles of Personnel Management*, McGraw Hill Book Co. New York,
3. Ganguli, H.C., *Industrial Productivity and Motivation*, Asia Publishing House, Bombay.
4. Yoler, Dale, *Personnel Management and Industrial Relations*, Prentice Hall of India, New Delhi.
5. Bowley, AM Handbook, *Salary and Wage System*, Grover press, Esses.
6. Tracy, W.R., *Designing, Training and Development Systems*, American Management Association, New York.
7. Yoder, D. Maheman, H.G. Turnbule J.G. and Stone, C. Handbook, *Personnel Management and Industrial Relations*, McGraw Hill Book Co. New York.
8. Rao. P. Subba, *Essentials of Human Resource Management*, Himalaya Publishing House, Bombay.
9. Memoria, C.B. *Personnel Management*, Himalaya Publishing House, Bombay.
10. Indian Journal of *Industrial Relations*, Shri Ram Center for Industrial Relations, New Delhi.
11. *Industrial Relations*, Institute of Industrial Relations, University of California, Berkley, California.

**Note: Latest edition of the readings may be used.**

**Production and Operations Management**  
**MBAC-207**

Theory Exam: 80  
Internal Assessment: 20  
Total Marks: 100

**Course objective:** The objective is to get the students acquainted with the design aspects of operations and material management and to develop relevant skill.

**Course Contents:**

**Unit-I:** Introduction: Objectives, Functions & Scope, types of production systems, operations strategy; Facility Planning, Factors Affecting Plant location & plant layout; Tools and Techniques used for Plant Layout Plannings. Types of characteristics of manufacturing, service system and operation strategies.

**Unit-II:** Production Planning and Control Process Planning, Aggregate Production Planning, Capacity Planning: Introduction, Capacity Planning; Product Design, and Development; Project Scheduling: Critical Path Method (CPM), and PERT, Sales forecasting, Forecasting system- Qualitative & Quantitative methods.

**Unit-III:** Materials Management - Concepts, Objectives, Functions, Materials Requirement Planning (MRP)-I, Materials Requirement Planning (MRP)-II Purchasing Management - Objectives; Functions; Methods; Procedure Management - Types of Stores; Functions; Coding Methods. Value Analysis – Concepts

**Unit-IV:** Inventory Management – Objectives, Factors, Process, Inventory control techniques- ABC, VED, EOQ, SED, FSN analysis. Maintenance Management - Concepts; Objectives; Functions; Types of Maintenance, Kanban System, Enterprise Resource Planning (ERP), TOC, Lean/ Green Manufacturing, WCM etc. and safety concepts.

**Unit- V:** Quality management: Introduction; Meaning, Concept of Quality, Total Quality Management (TQM), Total Productive Maintenance (TPM), Statistical Quality Control (SQC), concept of Six Sigma and its application; Advanced Manufacturing Technologies: Just in Time (JIT),

**Recommended Books:**

1. R. Paneerselvam, Production & Operations Management; PHI; New Delhi.
2. Mahadevan, B.; Operations Management – Theory and Practice; Pearson Education; New Delhi
3. Bedi, Production & Operations Management, 2/e, Oxford University Press.

**Reference Books:**

1. R.S. Russell, and B.W. Taylor, Operations Management, Pearson Education
2. Gaither, Norman & Frazier, Greg; Operations Management; Thomson Learning; New Delhi
3. Krajewski, Lee J. & Ritzman, Larry P.; Operations Management – Processes and Value Chains; Pearson Education; New Delhi
4. K. N. Dervitsiotis, Operation Management, McGraw-Hill International Company.
5. Bedi, kanishka, Production and operation management, Oxford University press.