

Registration No.:

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Total Number of Pages: 02

Course: MBA

Sub_Code: MBPC1004/18MBA201

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: CORPORATE FINANCE

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA(A&M), MBA (M&F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V356

Answer Question No.1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- Explain the objectives of financial management.
- A project requires an investment of ₹ 1,00,000 and generates ₹ 30,000 annually for 5 years. Calculate the Payback Period.
- A firm has EBIT of ₹ 2,00,000 and interest expenses of ₹ 50,000. Calculate Degree of Financial Leverage (DFL).
- Calculate Net Present Value (NPV) of a project costing ₹ 50,000 with annual cash inflows of ₹ 15,000 for 5 years at 10 % discount rate.
- State the concept of time value of money.
- Why is it important to find out the risk and return in financial decisions?
- Mention four important sources of short-term funds for a company.
- Mention four important sources of long-term funds for a company.
- What do you mean by credit policy decision?
- Explain the Agency problem.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- a) A company is evaluating two mutually exclusive projects:

Particulars	Project A	Project B
Initial Investment	₹ 1,50,000	₹ 1,50,000
Life (years)	5	5
Annual Cash Inflow	₹ 50,000	₹ 45,000

- Calculate NPV at 10 %
- Calculate Profitability Index
- Recommend the better project with justification.

- b) A company has equity capital of ₹ 10,00,000 and debt of ₹ 5,00,000 at 10 % interest. Calculate Weighted Average Cost of Capital (WACC) assuming cost of equity is 15 % and tax rate is 30 %.
- c) Discuss the features of an optimal capital structure.
- d) Explain the factors affecting capital structure decisions.
- e) Explain the importance of working capital management.
- f) Discuss and distinguish the dividend theories under relevance and irrelevance approaches.
- g) Explain when Finance Managers make use of Operating Leverage and Financial Leverage and Combined leverage.
- h) A firm is considering two financing plans:
Plan A: All Equity (₹ 10,00,000)
Plan B: ₹ 5,00,000 Equity + ₹ 5,00,000 Debt @ 12 %
 EBIT is expected to be ₹ 2,00,000.
- Calculate EPS under both plans
 - Calculate Degree of Financial Leverage
 - Suggest the better plan with reasoning
- i) Discuss the ABC method of inventory control.
- j) A company pays dividend of ₹ 5 per share, growth rate is 6 %, and required rate of return is 12 %. Calculate share price using Gordon model.
- k) Explain the important factors impacting working capital requirements for a company.
- l) What are the main motives of holding cash in a company?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** a) Explain Modigliani and Miller (MM) dividend irrelevance theory. (8 + 8)
 b) Discuss Gordon's model with assumptions.
- Q4** Estimate working capital requirement based on the following information: (16)
- Annual sales: ₹ 12,00,000
 - Cost of production: 80 % of sales
 - Raw material storage: 2 months
 - WIP: 1 month
 - Finished goods: 2 months
 - Debtors: 3 months
 - Creditors: 2 months
- Q5** Discuss the emerging roles of Finance Managers in India and Global context. (16)
- Q6** Discuss in detail the long-term sources of funds with their relative merits and demerits of availing such long-term funds in a company. (16)

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Total Number of Pages: 02

Course: MBA
Sub_Code: MBPC1005

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Cost and Management Accounting

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA (A & M),
MBA (M & F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V374

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Provide one example of cost unit.
- What is the purpose of maintaining cost sheet?
- Why is building rent not considered as a fixed cost?
- Define cost with an example.
- What do you mean by Economic Order Quantity (EOQ)?
- Define the concept of apportionment in cost accounting.
- Define overhead absorption with an example.
- Why do entrepreneurs calculate marginal cost?
- Define contribution in cost accounting.
- State the precondition to use zero.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- Explain the concepts of cost centre and profit centre with suitable illustrations.
- Examine the role of cost accounting in managerial decision-making.
- Differentiate between cost accounting and financial accounting with relevant points of comparison.
- Discuss the various methods of costing adopted in practice.
- Explain the classification of overheads with appropriate examples.
- Describe the techniques of inventory control used in organisations.
- A company has demand of 50,000 units per year. Ordering cost is ₹ 25 and holding cost is ₹ 2. Find EOQ.
- Explain the concept of job costing and illustrate it with a suitable example.
- Derive the marginal cost equation and explain its components.
- Explain the concept and application of break-even analysis.
- Differentiate between budgetary control and standard costing.
- Explain the concept and significance of standard costing.

Part-III
Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 From the following information, prepare a Cost Sheet and calculate profit. **(16)**

Particulars	Amount (₹)
Opening stock of raw material	20,000
Purchases	1,80,000
Carriage inward	10,000
Closing stock of raw material	30,000
Direct wages	80,000
Direct expenses	20,000
Factory overheads	50,000
Administrative overheads	40,000
Selling & distribution overheads	30,000
Opening stock of finished goods	25,000
Closing stock of finished goods	35,000
Sales	4,50,000

Q4 Critically evaluate different methods of material issue pricing methods. Discuss their advantages, limitations, and suitability in different business environments with examples. **(16)**

Q5 Evaluate the role of marginal costing in managerial decision-making. Discuss its advantages and limitations in areas such as pricing, product mix, and profit planning with suitable examples. **(16)**

Q6 Standard labour for producing 500 units is given below; **(16)**
 Standard time per unit = 2 hours
 Standard rate = ₹ 10/ hour
Actual data:
 Actual output = 500 units
 Actual hours worked = 1,100 hours
 Actual rate = ₹ 12/ hour
 Calculate Labour Cost Variance, Labour Rate Variance and Labour Efficiency Variance.

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Course: MBA

Sub_Code: MBPC1006/18MBA203

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Human Resources Management

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA (A&M), MBA (M&F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V389

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- Define Human Resource Management (HRM) and state any two objectives of HRM.
- List any two functions of HRM and write one line on each.
- What is meant by the HRM process? Mention any two steps in the process.
- Write two key differences between traditional personnel management and modern HRM.
- What is Strategic HRM? State one way it supports organizational goals.
- Define Human Resource Planning (HRP) and mention any two benefits of HRP.
- What is job analysis? Name its two main outputs.
- Distinguish between job description and job specification (any two points).
- Define recruitment and list any two internal sources of recruitment.
- What is selection? Mention any two selection methods used by organizations.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Explain the evolution of HRM and how the HR role has changed in organizations.
- Describe the functions of HRM and briefly explain how they contribute to organizational performance.
- Discuss the process of HRP and the major factors influencing HR forecasting.
- Explain job analysis and how job description and job specification are used in staffing decisions.
- Compare recruitment and selection and explain how each affects workforce quality.
- Explain performance appraisal: objectives, process, and any two commonly used appraisal methods.
- What is potential appraisal? Explain how it differs from performance appraisal and where it is used.
- Discuss biases in performance appraisal and suggest measures to reduce them.
- Explain job evaluation and describe any two methods used to determine job worth.
- Discuss compensation: meaning, components, and types of compensation with examples.

- k) Explain wage differentials and discuss any two wage theories relevant to wage determination.
- l) Write a short note on wage laws in India and explain their relevance in designing pay structures.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** “HRM is a strategic partner, not just an administrative function”. Explain this statement with reference to Strategic HRM, and discuss how HRM links with business strategy through HR planning, staffing, and job design. **(16)**
- Q4** Design a comprehensive performance management and appraisal framework for a mid-sized company: include objectives, appraisal process, suitable methods, handling biases, and linking appraisal outcomes to rewards and development. **(16)**
- Q5** Explain how an organization can build an effective compensation system: discuss job evaluation, pay structure design, wage differentials, executive compensation considerations, and compliance with wage-related laws in India. **(16)**
- Q6** Develop an integrated plan covering career planning and training & development: explain career stages, career planning process, training need analysis, training methods (on/off the job), evaluation of training effectiveness, and how promotion/ transfer/ separation policies and OCB influence employee growth and retention. **(16)**

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Course: MBA
Sub_Code: MBPC1007

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Operations Management

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA,
MBA (A & M), MBA (M & F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V442

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- Differentiate between manufacturing and service operations.
- Define process analysis.
- What is job rotation?
- Define design capacity and effective capacity.
- Define fixed position layout.
- What is the objective of line balancing?
- What is Bill of Material (BOM)?
- Define the control charts for variables.
- Define Total Float and Free Float with reference to Project Management.
- What is the significance of ISO22000?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Explain how operations strategy supports business strategy with examples.
- Explain the roles and responsibilities of an operations manager in an organization.
- An 8-hour measurement study in a plant reveals that 320 numbers of units were produced. If idle time = 15 % and performance rating = 120 %, with allowance = 12 % of normal time, determine the standard time per unit of production.
- Explain the procedure of Method study.
- Explain various techniques used for facility location decisions.
- Explain the concept of line balancing with objectives.
- Compare product layout and process layout with examples.
- Describe the inputs and outputs of an MRP system.
- Five jobs must go through 2 machines in the order A and B. Determine the optimal sequence that will minimise the total elapsed time and also calculate the idle time of the machines.

Job	1	2	3	4	5
Machine A	7	8	10	14	8
Machine B	5	8	9	11	10

- j) Differentiate between PERT and CPM in detail.
- k) Describe X-bar chart and R chart with their uses.
- l) Write a note on ISO 9000 series.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** Explain Aggregate planning. Discuss the relevant costs and strategies associated with aggregate planning. **(16)**
- Q4** Discuss the importance of Inventory management in industries. Explain how EOQ helps in minimizing total inventory cost. **(16)**
- Q5** Draw a network diagram for the activities given below and determine the critical path and the project duration. **(16)**

Activity	Description of Activity	Duration of Activity (month)	Immediate Predecessor Activity
A	Design Plant	12	---
B	Select Site	8	A
C	Select Vendor	4	A
D	Select Personnel	3	A
E	Prepare site	12	B
F	Manufacture Generator	18	C
G	Prepare Operations Manual	5	C
H	Install Generator	4	E, F
I	Train Operators	9	D, G
J	Obtain Licence	6	H, I

- Q6** Write the notes on the following. **(8 x 2)**
- a) ISO 14000 (EMS)
 - b) Total Quality Management

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Course: MBA
Sub_Code: MBPC1008

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Business Analytics

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA (A & M), MBA (M & F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V456

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- What are Business Analytics, and why is it important in modern organizations?
- Define descriptive analytics with one example.
- Differentiate between Business Intelligence and Business Analytics.
- What is data integration and why is it necessary?
- What is a data-driven business model?
- What is R programming and why is it widely used in analytics?
- Differentiate between data management and data governance.
- What is regression analysis used for?
- Name one method used for time-series forecasting.
- What is clustering in analytics?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Explain the key features of R programming that make it suitable for statistical computing and data analysis.
- Describe the importance of EDA in the analytics process. Provide examples of techniques used in EDA.
- Explain the difference between mean, median, and mode. In what situations would each measure be most appropriate?
- Discuss the role of measures of dispersion in descriptive analytics.
- Why is data visualization considered a critical step in analytics? Illustrate with examples.
- Differentiate between simple linear regression and multiple regression with examples.
- Provide an example of how clustering can be applied in customer segmentation.

- h) Discuss the role of real-time financial analytics in fraud detection and compliance monitoring.
- i) Explain the role of web and social media analytics in shaping digital marketing strategies.
- j) What is churn analysis and why is it important for businesses?
- k) What is Python? Highlight its key features. Furthermore, explain why certain codes in Python are considered complex, giving examples of challenging implementations.
- l) Discuss the role of ETL processes in the successful implementation of a Data Warehouse.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

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|-----------|---|-------------|
| Q3 | Discuss the concept of Business Analytics. Explain its importance in modern organizations, highlighting how it supports decision-making, competitive advantage, and innovation. Provide examples of industries where Business Analytics has transformed operations. | (16) |
| Q4 | Evaluate how R packages and libraries enhance the functionality of R. Provide examples of widely used packages and their applications in analytics. | (16) |
| Q5 | Discuss the architecture of a Big Data Analytics framework. Explain the role of data sources, storage, processing, and visualization layers, and how they interact to deliver insights. | (16) |
| Q6 | Explain the components of a time-series. How do these components influence forecasting models? Illustrate with suitable examples. | (16) |

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Total Number of Pages: 02

Course: MBA
Sub_Code: MBPC1009

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Management Information System

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA (A & M), MBA (M & F),
MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V513

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1

Answer the following questions:

(2 x 10)

- Define MIS and explain its role in modern organizational decision-making.
- Differentiate between Decision Support Systems (DSS) and Expert Systems (ES).
- Explain the components of the CCR Framework.
- What is a Data Warehouse, and how does it support Business Intelligence (BI)?
- How does an Enterprise Resource Planning (ERP) system achieve business process integration?
- Explain the concept of "IT-Business Alignment" and why it is critical for a firm's success.
- Analyze the Relationship between IT Strategy and the Balanced Scorecard (BSC).
- Compare and contrast SCM (Supply Chain Management) and CRM (Customer Relationship Management) systems in the value chains.
- Discuss the advantages and risks of "Bring Your Own Device" (BYOD) policies in a corporate environment.
- Explain how Blockchain technology ensures transparency and security in E-procurement.

Part-II

Q2

Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- An enterprise is at a strategic crossroads regarding its data infrastructure, evaluating a transition from a traditional On-Premise Database Management System (DBMS)—characterized by high upfront capital expenditure and fixed maintenance—to a Cloud-based Software-as-a-Service (SaaS) model, defined by a variable, subscription-based operating expense. Critically analyze the economic and operational tensions between Capital Expenditure (CapEx) and Operating Expenditure (OpEx) within the context of a five-year Total Cost of Ownership (TCO) framework.
- Discuss the specific Role of Managers in IT Implementation and Adoption. Why is managerial support considered a critical success factor in overcoming user resistance to new technologies like Learning Management Systems (LMS)?
- An organization is utilizing a Model-Driven Decision Support System (DSS) to evaluate two competing market entry strategies. Strategy Alpha represents a "High-Variance" path, offering substantial rewards but carrying a significant risk of capital erosion. Strategy Beta represents a "Low-Variance" path, ensuring positive returns across all probable states of nature, albeit at a lower ceiling. Critically evaluate the role of Expected Monetary Value (EMV) as a primary decision criterion in strategic product launches.

- d) Evaluate the role of Knowledge Management in modern firms. How do Expert Systems capture and leverage organizational 'intellectual capital' differently than standard transaction systems?
- e) The rapid transition from traditional cash-based transactions to Digital Payment Ecosystems (such as UPI, Digital Wallets, and CBDCs) has fundamentally altered the information flow within financial institutions. Discuss the role of Middlewares and Payment Gateways in ensuring data integrity and transaction atomicity during a cross-bank digital transfer. Evaluate how "Big Data" generated through digital payments serves as a strategic asset for Decision Support Systems (DSS). Specifically, analyze how this data can be leveraged for Fraud Detection and Predictive Customer Analytics.
- f) Explain how the Internet of Things (IoT) and Big Data Technologies work together to support real-time decision-making in a smart factory environment.
- g) Analyze the operational differences between B2B E-procurement and B2C E-commerce. How does the integration of Mobile Commerce enhance the customer experience in the B2C segment? Critically discuss the major security risks associated with Mobile Commerce that a manager must address to ensure consumer trust.
- h) A manufacturing plant uses IoT sensors with a 99.5% uptime. The central Cloud server has a 99.9% uptime. Calculate the total system reliability (assuming both must be active for the process to work). Suggest one strategy to improve this figure for a mission-critical process.
- i) Evaluate the role of Supplier Relationship Management (SRM) in mitigating procurement risks. How does SRM differ from standard SCM in its strategic focus?
- j) Critically evaluate the "Productivity Paradox". Despite massive investments in Information Technology over the last two decades, many firms have failed to see a proportional increase in labor productivity. Identify three organizational factors (e.g., culture, training, or process redesign) that explain why technology alone is insufficient for achieving a high Return on Investment (ROI).
- k) Discuss the trade-offs involved in Vendor Strategies. Compare the "Single-Vendor" approach versus the "Best-of-Breed" approach.
- l) An HR manager needs a system to track employees, departments, and projects. One employee can belong to only one department but can work on multiple projects. Identify the primary keys and foreign keys required. Draft an Entity-Relationship (ER) logic that ensures data integrity.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

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| Q3 | Deconstruct a modern business process (such as online retail order fulfillment) using the CCR (Configuration, Control, and Reporting) framework. Analyze which specific MIS capabilities are required at each stage of the framework to ensure data integrity and management oversight. | (16) |
| Q4 | Differentiate between a Decision Support System (DSS) and an Executive Information System (EIS) in the context of a strategic pivot (e.g., entering a new international market). Analyze why an executive might find an EIS more useful than a standard DBMS report during this process. | (16) |
| Q5 | Analyze the potential of Blockchain and IoT to transform E-procurement and SRM (Supplier Relationship Management). Identify the specific structural changes these technologies impose on traditional buyer-vendor relationships. | (16) |
| Q6 | Analyze the fundamental differences in MIS requirements for a Production and Inventory System versus a Sales and Marketing System (CRM). How does the data architecture differ when the goal is "Internal Efficiency" versus "Customer Centricity"? | (16) |

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Course: MBA
Sub_Code: MBPC1010

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: STRATEGIC MANAGEMENT

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA(A&M), MBA(M&F),
MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V528

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- How is the concept of strategy relevant for business organization?
- Why is strategic management a dynamic process for any business organization?
- Why is "Innovation" one of the generic building blocks of competitive advantage?
- What is meant by Strategic Group? Give an example in any sector.
- Mention the different possible options under stability strategy.
- What is the difference between hard elements and soft elements in McKinsey's 7S framework?
- What is broadly the difference between mergers and acquisitions?
- What is meant by "Strategy determines structure and structure affects strategy"?
- How do Power and Politics (in organizations) impact strategic management process?
- What is the essence of Strategic CSR (Corporate Social Responsibility)?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- How crucial is environmental scanning for strategy management process? Support with industry examples.
- Explain the need and importance of strategic management in organizations. Provide relevant examples.
- Elaborate on various factors considered while setting the objectives of an organization.
- Explain the objectives and characteristics of formation of SBU (strategic business unit).
- Elaborate on the competitive changes that take place in the industry evolution with reference to ILC (industry life cycle).
- Explain how Ansoff Matrix is a simple and effective strategic tool for various growth options of business.
- What is meant by combination strategies? Briefly explain the various strategies in it. Support with examples.

- h) Explain how organizational resources and capabilities go on to build and achieve sustainable competitive advantage. Provide suitable examples.
- i) Elaborate on the various strategies for driving business in the global environment keeping cost pressure and localization pressure in mind.
- j) Explain the McKinsey's 7s framework and justify how and why "Shared Value" is the central element in that.
- k) Compare and contrast between BCG matrix and GE 9 cell model to explain the usefulness.
- l) Explain the key aspects of CSR in strategic management that result in long term benefits. Provide relevant industry examples.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

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|-----------|---|-------------|
| Q3 | Explain the importance of PESTEL analysis for any business. In view of the current geo-political scenario, how does it help in the dynamic strategic management process of a business in service sector. | (16) |
| Q4 | Pick up any reputed Indian conglomerate group (having diversified business portfolio) of your choice. Do a full-fledged business portfolio analysis using BCG matrix. Based on this, also suggest what other business it can get into in near future. | (16) |
| Q5 | How does the Balance Score Card capture all round dimensions of any business. Explain each of the four perspectives and cite appropriate examples to justify your answer. | (16) |
| Q6 | Elaborate in full details the applicability of Porter's Five Forces model in terms of the current trend of AI driven digital commerce in almost every sector and industry. Provide appropriate examples in manufacturing and service sectors. | (16) |

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Course: MBA
Sub_Code: MBPC1011

2th Semester Regular/Back Examination: 2025-26

SUBJECT: Introduction to AI

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM,
MBA, MBA (A & M), MBA (M & F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V590

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Define Machine Learning.
- What is meant by "training data"?
- What is deep learning?
- What is model training?
- What is deployment in AI projects?
- Who are the members of an AI team?
- What is an AI transformation playbook?
- Define AI pitfalls?
- Explain AI application area?
- What is meant by AI techniques?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- What are the different types of data used in AI?
- What are the limitations of Machine Learning?
- Give examples of tasks Machine Learning can perform.
- Explain deep learning in non-technical terms.
- Explain the concept of model evaluation.
- How do AI teams collaborate on projects?
- What are common technical tools used by AI teams?
- How can a company take its first step toward AI adoption?
- Explain different AI techniques in brief.
- What are major application areas of AI?
- Explain how self-driving cars use AI.
- What are the roles of different members in an AI team?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** a) How does Machine Learning impact everyday life? (8 x 2)
b) Can Machine Learning replace human intelligence completely? Justify your answer.
- Q4** a) Explain Artificial Intelligence and its applications in real life. (8 x 2)
b) Discuss the role of data in AI systems.
- Q5** a) What challenges might arise while working in an AI team and how can they be solved? (8 x 2)
b) Compare two different AI project workflows with examples.
- Q6** a) Suggest steps for implementing AI in a small business. (8 x 2)
b) Compare different AI application areas and their importance.

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Course: MBA
Sub_Code: MBQT1002

2nd Semester Regular/Back Examination: 2025-26

SUBJECT: Business Research

BRANCH(S): BA, FM, FM&HRM, GM, HCHM, HRM, IB, ISEM, LSCM, MBA, MBA (A&M), MBA (M&F), MM, RM

Time: 3 Hours

Max Marks: 100

Q.Code: V603

Answer Question No.1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Define business research and state any two reasons why it is important for managerial decision-making.
- What is a research problem? Write any two characteristics of a well-defined research problem.
- State any two differences between primary data and secondary data.
- List any four steps in the research process.
- What is a hypothesis? Distinguish between null and alternative hypothesis (any two points).
- Define research design. Name any two types of research designs.
- What is sampling? Mention any two sampling fundamentals/ considerations.
- What is a questionnaire? Write any two guidelines for good questionnaire design.
- State the condition(s) under which a z-test is commonly used (any two points).
- What is a chi-square test used for? Mention any two applications in business.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- Explain the steps involved in identifying a research problem and converting it into workable research objectives.
- Discuss types of research (exploratory, descriptive, causal) and give one business example for each.
- Describe the process of hypothesis formulation and explain Type I and Type II errors with examples.
- Explain questionnaire design: question types, scaling choices, and common sources of bias (any five points).
- Compare probability and non-probability sampling methods. Discuss when each is appropriate in business research.

- f) Explain the logic of hypothesis testing and outline the steps of conducting a t-test for a population mean.
- g) Differentiate z-test and t-test and explain the practical situations where each should be applied.
- h) Explain chi-square test for independence including assumptions, steps, and interpretation of results.
- i) Explain one-way ANOVA: assumptions, test statistic, and how you interpret the p-value in a business context.
- j) Write notes on non-parametric tests: Sign test, Run test, and Kruskal–Wallis's test (purpose and typical use).
- k) Explain multiple regression analysis: model specification, interpretation of coefficients, and goodness-of-fit.
- l) Discuss factor analysis: objectives, key steps, and how factors are interpreted for managerial insights.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

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| Q3 | A retail chain wants to test whether the average billing amount differs across three store formats (small, medium, large). Design the study (problem, hypothesis, sampling) and explain how you would analyse the data using one-way ANOVA. Also describe how you would report the results. | (16) |
| Q4 | A bank wants to predict loan default risk using customer variables such as income, credit score, tenure, and existing liabilities. Propose a multiple regression-based approach, discuss assumptions/ diagnostics, and show how results would be interpreted for decision-making. | (16) |
| Q5 | A consumer goods company collected responses to 18 Likert-scale items about brand perception. Explain how you would apply factor analysis to reduce dimensions (steps, extraction/ rotation, deciding number of factors) and how the factors would be used in strategy. | (16) |
| Q6 | A firm suspects that employee training (Yes/ No) is associated with promotion outcome (Promoted/ Not Promoted). Propose the complete hypothesis testing plan using chi-square test for independence (assumptions, contingency table setup, interpretation), and write the key sections of the research report. | (16) |