



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING  
(AUTONOMOUS)**

L.B. Reddy Nagar :: Mylavaram-521 230 :: NTR Dist. :: A.P  
Approved by AICTE, New Delhi. Affiliated to JNTUK, Kakinada

**MBA (III Semester) (R23) Semester End Examinations (Regular & Supplementary) December 2025**

**TIME TABLE**

**R23**

**Time : 10.00 AM to 01.00 PM**

**A.Y. : 2025-26**

22-12-2025 (Monday)	24-12-2025 (Wednesday)	26-12-2025 (Friday)	29-12-2025 (Monday)	31-12-2025 (Wednesday)	02-01-2026 (Friday)
23MB12 - Business Policy & Strategic Management	23MB13 - E-Commerce & Digital Markets	23MB21 - Security Analysis and Portfolio Management	23MB22 - Financial Markets and Services	23MB25 - Performance and Reward Management	23MB26 - Management of Industrial Relations
				23MB29 - Services Marketing & Retail Management	23MB30 - Advertising and Brand Management
				23MB33 - Data Mining for Business Decisions	23MB36 - Data Science using R

**Note:** Any omissions or clashes in the time table may please be informed to the Controller of Examinations immediately.

**Date: 05-12-2025**

**CONTROLLER OF EXAMINATIONS**

**PRINCIPAL**

- Copy to:**
1. Vice-Principal, Deans & HoD
  2. T&P cell, Transport co-ordinator & Librarian
  3. Canteen, PD, Security & Hostels
  4. Coordinator-Disciplinary
  5. Notice Boards

22 DEC 2025

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**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**

L.B.Reddy Nagar :: Mylavaram – 521 230 :: NTR Dist. :: A.P.

MBA. (III Semester) Regular/Supplementary Examinations

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22/12/25

**23MB12-BUSINESS POLICY & STRATEGIC MANAGEMENT**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

Q.No	Questions	Marks	CO	BL
1(a)	Describe the business policy, and how does it differ from a strategy.	5M	CO1	L2
(b)	Why are business policies considered essential for achieving organizational goals?	5M	CO1	L1
<b>(OR)</b>				
2(a)	Distinguish between policies, procedures, processes, and programs with examples	5M	CO1	L2
(b)	List out the different types of business policies, and discuss how they are categorized.	5M	CO1	L2
<b>(OR)</b>				
3(a)	Explain the key internal and external factors to consider when framing business policies.	5M	CO2	L2
(b)	Outline the major steps involved in the process of framing business policies.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Discuss the challenges organizations face in implementing policy changes.	5M	CO2	L2
(b)	Explain the role of Policies in Strategic Management.	5M	CO2	L2
<b>(OR)</b>				
5(a)	Explain the significance of strategic management in achieving competitive advantage.	5M	CO3	L2
(b)	Discuss the importance of environmental scanning in identifying internal and external factors.	5M	CO3	L2
<b>(OR)</b>				
6(a)	Apply Porter's Five Forces framework to analyze the competitive landscape of the e-commerce industry.	5M	CO3	L3
(b)	Explain how organizations identify and internal and external factors affecting their strategy.	5M	CO3	L2
<b>(OR)</b>				
7(a)	Explain the concept of strategy formulation and why it is crucial for business success.	5M	CO4	L2
(b)	Summarize the purpose of the BCG Matrix and its use in portfolio analysis	5M	CO4	L2
<b>(OR)</b>				
8(a)	Demonstrate a SWOT analysis for a local business or organization and suggest strategic priorities.	5M	CO4	L3
(b)	Explain a strategy formulation process for a start-up entering a competitive industry, highlighting key steps and tools.	5M	CO4	L2
<b>(OR)</b>				
9(a)	Define strategy evaluation and explain its role in the strategic management process.	5M	CO5	L2

**23MB12-BUSINESS POLICY & STRATEGIC MANAGEMENT**

(b)	Explain the concept of strategy control and describe its importance in strategic management.	5M	CO5	L2
<b>(OR)</b>				
10(a)	Describe the different types of strategic controls	5M	CO5	L2
(b)	Discuss How can small businesses use strategic evaluation and control to improve their competitive position.	5M	CO5	L2
11.	<p><b>Case study (Compulsory question)</b>  <b>HDFC'S Digital Journey</b>            In 1999, HDFC Bank entered the digital arena by launching its online, real-time net banking. The bank then introduced its first SMS-based mobile banking in 2000. In October 2015, HDFC Bank launched a campaign called 'Go Digital' to strengthen its position in the digital banking segment. The bank observed that as a result of this initiative, around 63% transactions were happening through digital channels. In 2015, the Government of India observed a decrease in credit growth to 9% as compared to 14% in 2014 and announced banking reforms in the country. In November 2018, after the launch of its Mobile App, HDFC Bank observed an unexpected delay in the downloading of the app by customers. Even though the bank tried to upgrade the App many times, it failed to reduce the downtime and the Mobile App crashed. Again, in December 2019, HDFC Bank experienced issues with its Mobile App. To overcome the technical issues that occurred during 2018 to 2021, HDFC Bank announced a plan to implement a strategy and in June 2021, the bank adopted a dual approach, which included setting up of a Digital Factory and an Enterprise Factory. Both the factories were focused on the use of Application Programming Interface (APIs), Cloud, and data.</p> <p><b>Questions</b>            (i) Analyze the role played by technology in the digitalization of banks.            (ii) Examine the challenges faced by a bank while going in for digital transformation</p>	10M	CO2	L4

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MBA (III Semester) Regular/Supplementary Examinations

**23MB13-E-COMMERCE & DIGITAL MARKETS**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

Q.No	Questions	Marks	CO	BL
1(a)	Explain the advantages and disadvantages of E-commerce.	5M	CO1	L2
(b)	"Functional business systems plays crucial role in achieving organizational goals". Discuss it.	5M	CO1	L3
<b>(OR)</b>				
2(a)	Identify the difference between various E-commerce models.	5M	CO1	L3
(b)	Define M-commerce. Summarize its benefits.	5M	CO1	L2
<b>(OR)</b>				
3(a)	How value chain management different from supply chain management?	5M	CO2	L2
(b)	Define internet. Select the reasons for its increased demand.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Discuss the influence of covid19 on organizational functioning.	5M	CO2	L2
(b)	Point out sector wise contribution of Indian E-commerce retail as of 2022.	5M	CO2	L2
<b>(OR)</b>				
5.	Classify E-commerce logistics process.	10M	CO3	L4
<b>(OR)</b>				
6(a)	Demonstrate E-commerce supply chain strategies.	5M	CO3	L2
(b)	Illustrate strategies for E-commerce supply chain management.	5M	CO3	L2
<b>(OR)</b>				
7.	Define social network in E-commerce. How it is fetching E Commerce business?	10M	CO4	L4
<b>(OR)</b>				
8(a)	Describe the trends in online retailing.	5M	CO4	L3
(b)	Discuss popular categories in on-line retailing.	5M	CO4	L2
<b>(OR)</b>				
9(a)	Explain the future trends in E-markets.	5M	CO5	L3
(b)	What do you know on Search Engine Optimization in E-markets?	5M	CO5	L2
<b>(OR)</b>				
10(a)	Distinguish contrasting issues between E-markets and traditional markets.	5M	CO5	L4
(b)	Classify the advantages of traditional markets.	5M	CO5	L2
<b>(OR)</b>				
11.	<p><b>Case study (Compulsory)</b></p> <p>Amazon India's Entry and Growth</p> <p>Amazon entered the Indian e-commerce market in 2013, aiming to replicate its global success. The company has since invested heavily in infrastructure, technology, and marketing to capture a significant share of the market.</p> <p>Key Developments:</p> <p>Infrastructure Investment: Amazon has built extensive logistics and warehousing facilities across India.</p> <p>Customer Engagement: Initiatives like the Great Indian Festival have driven significant sales and customer engagement. Local Adaptation: Amazon has tailored its offerings to meet the unique needs of Indian consumers, including the introduction of local payment methods.</p> <p>Challenges:</p> <p>Regulatory Hurdles: Navigating India's complex regulatory environment has been a challenge for Amazon. Competition: The market is highly competitive, with local players like Flipkart and Snapdeal posing strong competition.</p> <p><b>Questions:</b></p> <p>(i) Analyse the strategies Amazon India has employed to gain market share in the Indian e-commerce sector.</p> <p>(ii) Identify the challenges Amazon faces in maintaining its growth trajectory in India.</p>	10M	CO2	L4

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26 DEC 2025

H.T.No

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MBA. (III Semester) Regular/Supplementary Examinations

**23MB21-SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit  
All questions carry equal marks

Q.No	Questions	Marks	CO	BL
1(a)	Discuss in detail the various methods of subscribing financial resources from national and international primary market. Discuss in detail role, objectives and functions of SEBI and its guidelines relating to primary market in India	5M	CO1	L2
(b)	The investment process involves a series of activities starting from the policy formulation Discuss.	5M	CO1	L2
<b>(OR)</b>				
2(a)	Discuss the investment vehicles available to individuals in India. Compare on basis of investment objectives.	5M	CO1	L2
(b)	What are the Statistical tools used to measure the risk of the securities return? Explain.	5M	CO1	L2
<b>(OR)</b>				
3(a)	What are the basic assumptions of Arbitrage Pricing Theory? what are the advantages and disadvantages of the APT over the CAPM.	5M	CO2	L1
(b)	Discuss the assumptions and implications of earnings approach to equity valuation.	5M	CO2	L2
<b>(OR)</b>				
4(a)	What is meant by bond convexity? Explain in details?	5M	CO2	L2
(b)	Assume a Rs 1000 per value bond with 8.5 percent coupon rate and a maturity period of 5 years. Determine the duration of the bond, if the current market interest rate is 10 percent.	5M	CO2	L3
<b>(OR)</b>				
5(a)	Explain the concept of Elliot wave theory.	5M	CO3	L2
(b)	What is Relative Strength analysis? How do technical analysis use it?	5M	CO3	L1
<b>(OR)</b>				
6(a)	'Technical Analysis is based on certain assumptions'. Explain.	5M	CO3	L2
(b)	How do moving averages help to evolve buy and sell strategy?	5M	CO3	L1
<b>(OR)</b>				
7(a)	Explain the concept of efficient frontier in the context of portfolio selection.	5M	CO4	L2
(b)	Explain the Sharp index model. How does it differ from the Markowitz model?	5M	CO4	L2
<b>(OR)</b>				
8(a)	Vijay enterprise has a beta of 1.5. The risk free rate is 7% and the expected return on the market portfolio is 14%. The company pays a dividend of Rs. 2.50 ps per share and the investor expects a growth in dividend of 12 % per annum for many years to come. Compute the required rate of return on the equity according to CAPM. What is the present market price of the equity share assuming the computed return is the required return?	5M	CO4	L3

**23MB21-SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

(b)	Discuss in detail with the help of example how Markowitz model and single index pricing model helps to measure market efficiency.	5M	CO4	L2																				
9(a)	"A Mutual Fund is an active portfolio"- why? Differentiate between close ended and open ended Mutual funds. State the functions of AMC.	5M	CO5	L2																				
(b)	Discuss the present status of Mutual Funds in India. Describe the restrictions on the investments by mutual funds as laid down by SEBI.	5M	CO5	L2																				
<b>(OR)</b>																								
10(a)	Explain the Jensen index of portfolio performance.	5M	CO5	L2																				
(b)	<p>The following three portfolios provide the particulars given below</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Portfolio</th> <th>Average annual return</th> <th>Standard deviation</th> <th>Correlation coefficient Market and portfolio</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>18</td> <td>27</td> <td>0.8</td> </tr> <tr> <td>B</td> <td>14</td> <td>18</td> <td>0.6</td> </tr> <tr> <td>C</td> <td>15</td> <td>8</td> <td>0.9</td> </tr> <tr> <td>Market</td> <td>12</td> <td>12</td> <td>---</td> </tr> </tbody> </table> <p>Risk free rate of interest is 9 %. Rank these portfolios using Sharp's and Treynor's methods. Compare both the indices.</p>	Portfolio	Average annual return	Standard deviation	Correlation coefficient Market and portfolio	A	18	27	0.8	B	14	18	0.6	C	15	8	0.9	Market	12	12	---	5M	CO5	L3
Portfolio	Average annual return	Standard deviation	Correlation coefficient Market and portfolio																					
A	18	27	0.8																					
B	14	18	0.6																					
C	15	8	0.9																					
Market	12	12	---																					
11.	<p><b>Case study (Compulsory Questions)</b></p> <p>Suppose you are a financial Analyst and the following details are forward to your desk by your boss for the certain queries of an high networth Individual settled in Dubai about an oil company. The ROE =9%has a Beta of 1.25, and plans to maintain indefinitely its traditional plough back ratio of 2/3. This year Earnings were Rs3.00per share. The annual dividend was just paid. The consensus estimate of the coming year's market return is 14% and T-Bills currently offer a 6% return.</p> <p>(i) Find the price at which the oil.co.shares should sell (ii) Calculate the P/E ratio (iii) Calculate the present value of growth opportunities.</p>	10M	CO2	L4																				

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MBA. (III Semester) Regular/Supplementary Examinations

**23MB22-FINANCIAL MARKETS AND SERVICES**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit  
All questions carry equal marksBoreep  
29/12/21

Q.No	Questions	Marks	CO	BL
1(a)	Elaborate the role of Indian financial system in economic development.	5M	CO1	L2
(b)	Discuss the factors effecting the stability of Indian Financial system.	5M	CO1	L2
<b>(OR)</b>				
2(a)	Explain the importance of Indian Financial System.	5M	CO1	L1
(b)	Analyze the various financial innovations on Indian financial system.	5M	CO1	L3
3(a)	Explain the importance of financial markets.	5M	CO2	L1
(b)	Discuss various types of money market instruments.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Elaborate instruments of foreign exchange markets.	5M	CO2	L2
(b)	Discuss various types of capital market instruments.	5M	CO2	L2
5(a)	Analyze the role of Reserve bank of India in development of economy.	5M	CO3	L3
(b)	Discuss in detail regarding unit trust of India.	5M	CO3	L2
<b>(OR)</b>				
6(a)	Elaborate of the various types of Banks.	5M	CO3	L2
(b)	Explain the role SEBI controlling the Indian economy.	5M	CO3	L2
7(a)	Analyze various types of venture capital.	5M	CO4	L3
(b)	Explain functions and advantages of factoring.	5M	CO4	L1
<b>(OR)</b>				
8(a)	Differentiate between Hire purchase and leasing.	5M	CO4	L2
(b)	Explain regarding various types of credit rating agencies.	5M	CO1	L1
9(a)	Discuss in detail the functions of merchant banking.	5M	CO5	L2
(b)	Elaborate on SEBI guidelines on Issue Management.	5M	CO5	L2
<b>(OR)</b>				
10(a)	Explain role of Merchant Banking in Indian economy.	5M	CO5	L2
(b)	Discuss in detail SEBI guidelines on Merchant Banking.	5M	CO5	L2
11.	<p><b>Case study (Compulsory question)</b></p> <p><u>Mutual funds</u> are definitely an apt choice to plan for short-term goals as well as the long-term ones. And a strategically well-thought-out selection, among a myriad of them available across category and sub-categories, is the key. In the absence of clearly defined investment horizon, i.e. number of years-to-goal, commenting on which category and sub-category you should invest in would be imprudent. But broadly, if your investment horizon is long (a minimum of 5 years) and you can afford to take the high risk (backed by your financial health and circumstances), <u>equity-oriented mutual funds</u> can be an appropriate choice for an investment objective of capital appreciation over the long term. Assuming your investment time horizon is 7 years, a monthly SIP of Rs 10,000 will fetch you Rs 14.54 lakh assuming a compounded average growth rate of 12% in equities. On the other hand, if your investment horizon is short (from a few weeks, months and/or up to 3 years) stay away from equities and choose bank fixed deposits and debt &amp; money market instruments. The return you would clock will be lower than equities, but fitting and in accordance with the tenure.</p> <p><b>Questions</b></p> <p>(i) Discuss the reasons for investing in mutual funds and the time horizon of investing in Mutual Fund.</p> <p>(ii) Mutual funds are the good sources of investment in terms of risk and return when compared to other investments. Justify.</p>	10M	CO3	L4

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MBA. (III Semester) Regular/Supplementary Examinations

**23MB25-PERFORMANCE AND REWARD MANAGEMENT**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

*Answered*  
31/12/25

Q.No	Questions	Marks	CO	BL
1(a)	Discuss the key challenges faced in implementing an effective Performance Management system.	5M	CO1	L2
(b)	How does Performance Management contribute to the success of an organization?	5M	CO1	L2
<b>(OR)</b>				
2(a)	Underline the process of building a competency based performance management system (CPMS).	5M	CO1	L2
(b)	Elaborate different types of performance counseling skills, and how are they classified.	5M	CO1	L3
<b>(OR)</b>				
3(a)	Discuss the primary objectives of the Performance Management Process.	5M	CO2	L2
(b)	Explain the key methods for conducting objective employee appraisals.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Describe the barriers in implementation of Performance Management Process.	5M	CO2	L2
(b)	Elucidate the essential components of an effective appraisal system.	5M	CO2	L3
<b>(OR)</b>				
5(a)	How does team behavior influence the team performance management process?	5M	CO3	L2
(b)	Describe the challenges that are commonly encountered in measuring performance.	5M	CO3	L2
<b>(OR)</b>				
6(a)	Make a note on significance of HR professionals in improving organization performance.	5M	CO3	L2
(b)	Describe the stages of teamwork that contribute to the effective management of high-performance teams.	5M	CO3	L2
<b>(OR)</b>				
7(a)	Remuneration is important in reward management basics. Discuss.	5M	CO4	L3
(b)	Explain the concept or person-based pay structures with its pros and cons in reward management.	5M	CO4	L2
<b>(OR)</b>				
8(a)	Describe the concept of how organizations value personal capabilities.	5M	CO4	L2
(b)	Discuss the importance of strategic alignment with base pay.	5M	CO4	L2
<b>(OR)</b>				
9(a)	Explain the concept of merit bonuses with their merits and demerits.	5M	CO5	L2
(b)	How can strategic alignment of individual reward and recognition be done?	5M	CO5	L3
<b>(OR)</b>				

## 23MB25-PERFORMANCE AND REWARD MANAGEMENT

10(a)	Summarize the advantages and disadvantages of using increments to reward individual performance.	5M	CO5	L2
(b)	Discuss profit-sharing and gain sharing.	5M	CO5	L2
11.	<p><b>Case study (Compulsory question)</b></p> <p>The case discusses the compensation management practices at Infosys Ltd., one of the leading Indian IT companies. Infosys' compensation management system was based on the Economic Value Added (EVA) model. With the implementation of EVA-based compensation, employee salaries consisted of two components: fixed and variable. The variable part of the salary was determined after considering business unit EVA, corporate EVA, and individual performance EVA. During the fourth quarter of the financial year (FY) 2021-22, Infosys announced plans to reduce 1.5 percent of the variable component of employee salaries, as its EVA targets for the third quarter of FY 2021-22 were not met.</p> <p>This announcement came as a shock not only to Infosys employees but also to the entire Indian IT industry. The company faced severe criticism and was accused of lacking transparency in its EVA calculation process. However, some analysts suggested that the pay cuts were a result of the macroeconomic challenges faced by Indian IT companies, including the rapid appreciation of the rupee against the US dollar and the ongoing recession in the US economy, which is the largest market for Indian IT companies.</p> <p><b>Questions</b></p> <p>(i) Discuss the role of variable compensation in motivating employees and improving organizational productivity.</p> <p>(ii) Understand the rationale behind the cut in the compensation of the employees of Infosys.</p> <p>(iii) Elaborate the importance of HR goals and strategies in the success of an organization.</p>	10M	CO4	L4

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MBA. (III Semester) Regular/Supplementary Examinations

**23MB29-SERVICES MARKETING & RETAIL MANAGEMENT**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

*Answered  
31/12/25*

Q.No	Questions	Marks	CO	BL
1(a)	Outline significance of services.	5M	CO1	L4
(b)	Analyze the types of services.	5M	CO1	L4
<b>(OR)</b>				
2(a)	Discuss the role of ethics in services marketing.	5M	CO1	L2
(b)	Define service quality.	5M	CO1	L1
3(a)	What is product decision?	5M	CO2	L1
(b)	Explain the different pricing techniques.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Discuss various service distribution methods.	5M	CO2	L2
(b)	Analyze the role of physical evidence in services.	5M	CO2	L4
5(a)	Discuss banking and financial services.	5M	CO3	L2
(b)	Define tourism and software services.	5M	CO3	L1
<b>(OR)</b>				
6(a)	Illustrate the impact of communication and entertainment services on economy.	5M	CO3	L2
(b)	What are logistics services?	5M	CO3	L1
7(a)	Define retailing and explain the types of retailers.	5M	CO4	L2
(b)	Analyze the multi - channel retailing issues.	5M	CO4	L4
<b>(OR)</b>				
8.	Describe the retailing management decision process.	10M	CO4	L2
9(a)	Briefly explain retail market growth strategies.	5M	CO5	L2
(b)	Discuss retail format development location.	5M	CO5	L2
<b>(OR)</b>				
10(a)	What is budgeting sustainable competitive growth?	5M	CO5	L1
(b)	Discuss strategic retailing in global scenario.	5M	CO5	L2
11.	<p><b>Case study</b> from any unit of the syllabus (Compulsory question) Kid wear is manufacturing kids "clothes/garments and is situated in Hyderabad. It was started in 1985 with Rs. 100000. Today, it has become a medium-sized unit employing 80 workers and 15 salesmen with a sales manager who directly reports to the owner. The annual turnover has crossed Rs. 70 lakh. The company is planning to start another plant in Tirupati. Ramu, the sales manager for the first time toured Tirupati and met the customers, present and prospective. His objective was to find the response, which was lukewarm, because most of the customers present said they were not very happy with the salesman's approach and attitude. They said that their requests were not paid attention and some were even rude, and this was the first time they could talk to Ravi. Hearing this, Ravi called for a meeting of salesman. On enquiring about the feedback from customers, all of them were silent. One of the young salesman, Amaresh who had been performing very well responded. We do our job-that's all".</p> <p>Questions :</p> <p>a) What is the problem with the salesmen? b) Do you think that Ramu was being an effective sales manager? and c) Suggest ways of evolving better sales force.</p>	10M	CO3	L4

H.T.No

31 DEC 2025

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**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**

L.B. Reddy Nagar: Mylavaram – 521 230: NTR Dist.: A.P.

M.B.A (III Semester) Regular/Supplementary Examinations

*31/12/25*

**23MB33-DATA MINING FOR BUSINESS DECISIONS**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

Q.No	Questions	Marks	CO	BL																																																							
1(a)	Describe two techniques used to visualize higher-dimensional data.	5M	CO1	L2																																																							
(b)	Define Data mining. Describe the tools used for datamining that are used for information or Knowledge extraction from Business Data.	5M	CO1	L2																																																							
<b>(OR)</b>																																																											
2(a)	Interpret the normal distribution models and discuss how they are used in business analysis. Provide a retail example.	5M	CO1	L2																																																							
(b)	Differentiate between Linear and Non-Linear Models in Data sets.	5M	CO1	L2																																																							
3	<p>From the following information</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>ID</th> <th>A</th> <th>B</th> <th>C</th> <th>Class</th> </tr> </thead> <tbody> <tr><td>1.</td><td>0</td><td>0</td><td>0</td><td>+</td></tr> <tr><td>2.</td><td>0</td><td>0</td><td>1</td><td>+</td></tr> <tr><td>3.</td><td>0</td><td>1</td><td>0</td><td>+</td></tr> <tr><td>4.</td><td>0</td><td>1</td><td>1</td><td>--</td></tr> <tr><td>5.</td><td>1</td><td>0</td><td>0</td><td>+</td></tr> <tr><td>6.</td><td>1</td><td>0</td><td>0</td><td>+</td></tr> <tr><td>7.</td><td>1</td><td>1</td><td>0</td><td>--</td></tr> <tr><td>8.</td><td>1</td><td>0</td><td>1</td><td>+</td></tr> <tr><td>9.</td><td>1</td><td>1</td><td>0</td><td>--</td></tr> <tr><td>10.</td><td>1</td><td>1</td><td>0</td><td>--</td></tr> </tbody> </table> <p>Calculate the Gini Index for <b>i) A</b> and <b>ii) B</b></p>	ID	A	B	C	Class	1.	0	0	0	+	2.	0	0	1	+	3.	0	1	0	+	4.	0	1	1	--	5.	1	0	0	+	6.	1	0	0	+	7.	1	1	0	--	8.	1	0	1	+	9.	1	1	0	--	10.	1	1	0	--	10M	CO2	L4
ID	A	B	C	Class																																																							
1.	0	0	0	+																																																							
2.	0	0	1	+																																																							
3.	0	1	0	+																																																							
4.	0	1	1	--																																																							
5.	1	0	0	+																																																							
6.	1	0	0	+																																																							
7.	1	1	0	--																																																							
8.	1	0	1	+																																																							
9.	1	1	0	--																																																							
10.	1	1	0	--																																																							
<b>(OR)</b>																																																											
4(a)	Describe the Components and steps involved in constructing a decision tree for business decision-making.	5M	CO2	L2																																																							
(b)	A company faces a decision between investing in a new product or improving an existing one. There is a 70% chance of success with the new product, which could generate \$500,000 in profits, but a 30% chance of failure, resulting in a \$200,000 loss. Construct a decision tree to represent this scenario and calculate the expected value of the new product investment.	5M	CO2	L4																																																							
5(a)	Describe the working of k-Nearest Neighbor (k-NN) classification with an example.	5M	CO3	L2																																																							
(b)	Describe the basic principle of rule-based classification. What are the advantages and limitations of using this approach?	5M	CO3	L2																																																							
<b>(OR)</b>																																																											
6(a)	Demonstrate the step-by-step process of anomaly and fraud detection.	5M	CO3	L2																																																							
(b)	Differentiate between Bayes' and naive Bayes' classifiers?	5M	CO3	L2																																																							

## 23MB33-DATA MINING FOR BUSINESS DECISIONS

7(a)	What is Singular Value Decomposition (SVD)? Demonstrate its role in dimensionality reduction and provide one application in management	5M	CO4	L2														
(b)	Describe the Dimensionality Reduction methods and differentiate PCA and Factor Analysis.	5M	CO4	L3														
<b>(OR)</b>																		
8(a)	Discuss the Multidimensional Scaling technique and its applications in various fields.	5M	CO4	L2														
(b)	<p>A manager wants to cluster employees based on performance metrics. After applying K-means Clustering to the data set the following cluster centroids were obtained:</p> <table border="1" style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th>Cluster</th> <th>Metric-1</th> <th>Metric-2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10</td> <td>20</td> </tr> <tr> <td>2</td> <td>25</td> <td>30</td> </tr> </tbody> </table> <p>Assign the employee with metrics (15, 25) to the appropriate cluster using Euclidian Distance.</p>	Cluster	Metric-1	Metric-2	1	10	20	2	25	30	5M	CO4	L4					
Cluster	Metric-1	Metric-2																
1	10	20																
2	25	30																
<b>(OR)</b>																		
9(a)	There are TWO series of index numbers P for Price index and S for the Stock of the Commodity. The mean and standard Deviation of P are 100 and 8 and of S are 103 and 4 respectively. The Correlation Coefficient between the TWO series is 0.4, with these data obtain the regression lines of P on S.	5M	CO5	L4														
(b)	Differentiate the Simple Linear regression and Multiple Linear regression with suitable examples.	5M	CO5	L2														
<b>(OR)</b>																		
10(a)	<p>Calculate the regression equation of X on Y from the data given below, taking deviations from the actual means of X and Y.</p> <table border="1" style="margin-left: 20px; border-collapse: collapse;"> <tbody> <tr> <td>Price (Rs.)</td> <td>10</td> <td>12</td> <td>13</td> <td>12</td> <td>16</td> <td>15</td> </tr> <tr> <td>Amount Demanded</td> <td>40</td> <td>38</td> <td>43</td> <td>45</td> <td>37</td> <td>43</td> </tr> </tbody> </table> <p>Estimate the likely demand when the price is Rs. 20.</p>	Price (Rs.)	10	12	13	12	16	15	Amount Demanded	40	38	43	45	37	43	5M	CO5	L4
Price (Rs.)	10	12	13	12	16	15												
Amount Demanded	40	38	43	45	37	43												
(b)	Demonstrate the regression metric to evaluate the Model.	5M	CO5	L2														
<b>(OR)</b>																		
11.	<p>A Researcher Provided the following information. classifying 100 people (which includes 40 pregnant women and the remaining 60 are not pregnant women and men with a fat belly) as pregnant or not pregnant. Out of 40 pregnant women 30 pregnant women are classified correctly and the remaining 10 pregnant women are classified as not pregnant by the machine learning algorithm. On the other hand, out of 60 people in the not pregnant category, 55 are classified as not pregnant, and the remaining 5 are classified as pregnant.</p> <p><b>Questions:</b> Formulate Confusion Matrix, also calculate Accuracy, Precision, Recall, and F-1 Score.</p>	10M	CO3	L5														

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02 JAN 2026

H.T.No

R23

**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**

L.B.Reddy Nagar :: Mylavaram - 521 230 :: NTR Dist.:: A.P.

M.B.A (III Semester) Regular/Supplementary Examinations

**23MB26-MANAGEMENT OF INDUSTRIAL RELATIONS**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit  
All questions carry equal marksR23001  
2/1/26

Q.No	Questions	Marks	CO	BL
1(a)	What do you understand by industrial relations? Explain the concept of industrial relations in India.	5M	CO1	L2
(b)	Do you think technology has some impact on industrial relations. Justify your views.	5M	CO1	L2
<b>(OR)</b>				
2(a)	Explain the significance of good Industrial relations in Industries.	5M	CO1	L2
(b)	Discuss the strategies for effective management of IR in India.	5M	CO1	L2
<b>(OR)</b>				
3(a)	Explain the objectives and growth of trade unions in India.	5M	CO2	L2
(b)	Discuss the objectives and functions of employers association.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Explain what are the forms of Worker's Participation in Management?	5M	CO2	L2
(b)	Elaborate the role of trade unions in maintaining industrial peace.	5M	CO2	L3
<b>(OR)</b>				
5(a)	Explain the purpose and principles of wage and salary administration.	5M	CO3	L2
(b)	What is the minimum and maximum bonus payable under the Payment of Bonus act? Who are eligible for payment under the act?	5M	CO3	L1
<b>(OR)</b>				
6(a)	What the factors affecting Wage Determination in India? Discuss.	5M	CO3	L2
(b)	Explain the main provisions of Minimum Wages Act, 1948.	5M	CO3	L2
<b>(OR)</b>				
7(a)	What are the various social security measures in India? Explain in detail.	5M	CO4	L2
(b)	Briefly elaborate workmen compensation Act 1923.	5M	CO4	L3
<b>(OR)</b>				
8(a)	Explain the salient features of ESI Act, 1948.	5M	CO4	L2
(b)	Based on your understanding discuss the various characteristics of workers education.	5M	CO4	L2
<b>(OR)</b>				
9(a)	What are the effects that show if a grievance is not properly redressed?	5M	CO5	L1
(b)	Discuss about the stages in the grievance handling procedure.	5M	CO5	L2
<b>(OR)</b>				
10(a)	Explain the provisions for the settlement of industrial disputes between employees and the employers under the industrial dispute act.	5M	CO5	L2
(b)	Discuss the various causes and consequences of Industrial disputes.	5M	CO5	L2

**23MB26-MANAGEMENT OF INDUSTRIAL RELATIONS**

11.	<p><b>Case Study Compulsory</b></p> <p>Suresh, a workman in the Fire and Safety Department of a manufacturing unit of a factory is addicted to alcohol. He has been warned many times for coming on duty in an inebriated state. He has been served charge-sheet and awarded punishment. Still there was no improvement in his chronic absenteeism. He is also deeply in debt and hardly takes a couple of hundred rupees as his take home salary. Instead of resorting to progressive punishment, the management, with the help of a social worker, counselled him and also made house visits and contacted his family members. Finally, he was sent to a hospital which specialised in de addiction. His three months of treatment in the hospital was considered as special leave with wages which were paid to the family members. The company bore the entire hospital expenses. After discharge from hospital, Suresh resumed his work. There are no more complaints about him. His performance is satisfactory. During her regular visits, the social worker received satisfactory reports about Suresh from his family members. In fact they were grateful to the company for saving their family from certain destitution.</p> <p><b>Questions:</b></p> <p>(i) In these fast-paced times, is it possible for any management to stretch that far to reform a person?</p> <p>(ii) Is it obligatory on the part of the management to take care of a workman beyond his working hours? What did the management achieve by his action?</p>	10M	CO3	L4
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**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**

L.B.Reddy Nagar :: Mylavaram – 521 230 :: NTR Dist. :: A.P.

MBA (III Semester) Regular/Supplementary Examinations

**23MB30-ADVERTISING AND BRAND MANAGEMENT**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit

All questions carry equal marks

Q.No	Questions	Marks	CO	BL
1(a)	Define advertising and explain its scope and significance.	5M	CO1	L2
(b)	Discuss the objectives of advertising using the DAGMAR approach.	5M	CO1	L2
<b>(OR)</b>				
2(a)	Explain the IMC planning process and its importance for effective advertising campaigns.	5M	CO1	L2
(b)	Analyse the role of advertising in Integrated Marketing Communication (IMC).	5M	CO1	L3
3(a)	What are the essentials of a good advertising copy? Provide suitable examples.	5M	CO2	L2
(b)	Discuss the elements of an effective print advertisement.	5M	CO2	L2
<b>(OR)</b>				
4(a)	How are advertisements for electronic media (Radio, TV, Internet) prepared? Discuss the steps involved.	5M	CO2	L3
(b)	Examine how advertising effectiveness is measured through different methods.	5M	CO2	L3
5(a)	What factors should be considered while selecting media for advertising campaigns?	5M	CO3	L2
(b)	Analyse the recent trends in advertising and their ethical implications.	5M	CO3	L4
<b>(OR)</b>				
6(a)	Explain the steps involved in developing a media strategy.	5M	CO3	L2
(b)	What are media scheduling decisions? Explain their significance in advertising.	5M	CO3	L3
7(a)	Define brand identity and explain how it is different from brand image.	5M	CO4	L2
(b)	Discuss the importance of brand equity for businesses.	5M	CO4	L2
<b>(OR)</b>				
8(a)	What is brand loyalty? Discuss its impact on brand management.	5M	CO4	L3
(b)	Analyse the role of brand personality in building strong brands.	5M	CO4	L4
9(a)	Define brand positioning and explain the 3 Cs of positioning with examples.	5M	CO5	L3
(b)	Discuss the role of celebrity endorsement in brand positioning.	5M	CO5	L2
<b>(OR)</b>				
10(a)	Explain the strategies for competitive advantage in brand positioning.	5M	CO5	L3
(b)	What is brand repositioning? Discuss its significance with examples of successful cases.	5M	CO5	L4
11.	<p><b>Case study (Compulsory)</b>  Tesla: <i>Branding Sustainable Mobility</i>  Background:  Tesla, Inc. revolutionized the automotive industry by introducing electric vehicles (EVs) that are not just environmentally friendly but also aspirational products. Founded in 2003, Tesla established itself as a luxury brand synonymous with innovation, sustainability, and performance. The company's iconic CEO, Elon Musk, has played a significant role in building Tesla's brand, leveraging his presence and charisma to attract consumers worldwide.  Despite being a relatively new player in the auto market, Tesla has become one of the most valuable car manufacturers, achieving a market capitalization surpassing traditional auto giants. Its branding strategy does not just focus on the product but emphasizes the broader mission: transitioning the world to sustainable energy. Tesla has successfully branded itself as more than just a car manufacturer; it is a lifestyle choice and a statement of environmental responsibility. The introduction of the Model S, X, 3, and Y, along with its energy products like solar roofs and Powerwall's, has reinforced this image.</p> <p><b>Questions:</b>  (i) Tesla does not focus heavily on traditional advertising. Instead, it relies on branding, word-of-mouth, and social media. Do you think this approach is sustainable in the long term?  (ii) What are the challenges Tesla faces in branding EVs, considering the competition from established automakers entering the EV space?  (iii) How does Tesla's branding of sustainable mobility appeal to the younger demographic, and what lessons can other industries learn?</p>	10M	CO4	L4

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MBA. (III Semester) Regular/Supplementary Examinations

**23MB36-DATA SCIENCE USING R**

Time : 3 hours

Max. Marks : 60

Answer one question from each unit  
All questions carry equal marks

*Passed*  
*21/1/26*

Q.No	Questions	Marks	CO	BL
1(a)	Describe about data analytics and write any two applications of data analytics.	5M	CO1	L2
(b)	Discuss in detail about R features and their applications.	5M	CO1	L2
<b>(OR)</b>				
2(a)	Explain the role of comments in R scripts. Write an example showing how to add a comment in an R script.	5M	CO1	L2
(b)	Illustrate the data types in R with example.	5M	CO1	L2
<b>(OR)</b>				
3(a)	Differentiate between a vector and a list in R. Write an example of each.	5M	CO2	L2
(b)	What is a list in R, and how does it differ from a vector? Provide an example of creating a list.	5M	CO2	L2
<b>(OR)</b>				
4(a)	Outline the if, switch statements in R with help of example.	5M	CO2	L2
(b)	Create a numeric vector containing the numbers 1 to 10. Write a command to calculate the sum of all elements in the vector.	5M	CO2	L3
<b>(OR)</b>				
5(a)	Write the general syntax of a for loop in R and explain how it works.	5M	CO3	L2
(b)	Discuss the different control structures in R, and why are they important.	5M	CO3	L2
<b>(OR)</b>				
6(a)	Explain the syntax for creating a function in R. Provide a simple example of a function that calculates the square of a number.	5M	CO3	L2
(b)	How do you find the length of a string in R? Write a command to concatenate two strings and find the result.	5M	CO3	L2
<b>(OR)</b>				
7(a)	Define binary file, and how does it differ from a text file in R.	5M	CO4	L2
(b)	What is an XML file, and why is it used in data storage and transfer?	5M	CO4	L1
<b>(OR)</b>				
8(a)	How do you establish a connection between R and a MySQL database?	5M	CO4	L2
(b)	Illustrate the JGR package in R, and what is its primary purpose.	5M	CO4	L2
<b>(OR)</b>				
9(a)	Compare supervised and unsupervised learning techniques.	5M	CO5	L2
(b)	Describe the K-Nearest Neighbor algorithm, and how does it classify data points.	5M	CO5	L2
<b>(OR)</b>				
10(a)	Differentiate between hierarchical and k-means clustering.	5M	CO5	L2
(b)	What is the goal of cluster analysis in unsupervised learning?	5M	CO5	L2
<b>(OR)</b>				
11.	<p><b>Case Study (Compulsory)</b> Analyse sales data for a retail company that operates in multiple cities. The data is stored in a list, where each element represents daily sales for a specific city.</p> <p><b>Questions:</b> (i) Write a loop to calculate the total sales for all cities combined. (ii) Modify your loop to find the city with the highest total sales. (iii) Analyse the performance of your loop and suggest how it could be optimized for large datasets.</p>	10M	CO3	L3

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