

CAIIB ABM Practice Questions (Set-2)

- Q1.** A firm's balance sheet reflects total assets of Rs 75 lacs, with long-term assets amounting to Rs 50 lacs. If the current ratio is 1.25:1, what is the amount of current liabilities? (The answer will be in figure)
- Q2.** Which one of the following are not the benefits of using simple random sampling?
- (i) We can calculate the accuracy of the results
 - (ii) The results are always representative
 - (iii) Interviewers can choose respondents freely
- (a) Only (i) and (ii)
 - (b) Only (i) and (iii)
 - (c) Only (ii) and (iii)
 - (d) (i), (ii) and (iii)
- Q3.** The working capital turnover ratio is 5, and the current ratio is 2.5:1. If current liabilities are Rs 8 lakh and the net profit margin is 6%, calculate the net profit amount. (The answer will be in figure)
- Q4.** Which of the following best describes the responsibilities involved in a managerial role of HR?
- (a) Managers are tasked with handling customer service inquiries, improving product quality, and overseeing the distribution network.
 - (b) The role of a manager involves planning for future manpower needs, recruiting, placing employees effectively, and motivating them, along with assessing their performance and planning for their professional development.
 - (c) A managerial role focuses on supervising production lines, managing supply chain logistics, and implementing new technologies within the company.
 - (d) Managers are primarily responsible for conducting market analysis, developing advertising strategies, and overseeing the financial budgeting process.
- Q5.** Read the following statements carefully and choose the correct option about the concept of "Scatter Diagram"?
- 1. The Dependent Variable is on the Y-axis while the Independent Variable is on the X-axis.
 - 2. When it is possible to draw a line to fit the data, the relationship between the variables is linear.
 - 3. When it is possible to draw a curve but not the line to fit the data, the relationship between variables is curvilinear.
- (a) 1 only
 - (b) 2 only
 - (c) 3 only
 - (d) All of the above



Q6. In the context of job analysis, which of the following sources of data/information are considered vital?

- (a) Feedback from job holders, direct supervisors, and customers, as well as insights from job analysts, are essential sources for gathering information for job analysis.
- (b) Information for job analysis is primarily gathered from industry reports, competitor analysis, and financial performance metrics of the organization.
- (c) Data collection for job analysis typically involves public records, government publications, and historical data archives of the company.
- (d) The main sources of information for job analysis are internal audits, employee satisfaction surveys, and annual business reviews.

Directions (7-10): Firm A has provided the following information about its working capital need based on the demand on annual sales of Rs. 30 lac.

Raw material value = 2.40 lac, stock in process = 1.60 lac, finished goods Rs. 3.40 lac, outstanding debtors = Rs. 4 lac, cash = 0.30, trade creditors = Rs. 2.60 lac and other current liabilities and other current liabilities = Rs. 0.80 lac based on this information answer, the following question.

Q7. What is the amount of working capital?

Q8. What is the amount of working capital GAP?

Q9. What is the minimum net working capital (or margin), the firm is required to provide as per 2nd method of lending of the Tandon Committee?

Q10. What is the amount of permissible bank finance, i.e. bank limits, the bank shall sanction:

Q11. Ergonomics is concerned with ..

- (a) Designing and shaping jobs
- (b) Creativity the jobs
- (c) Guiding the employees to do the jobs
- (d) All of the above

Q12. Find the harmonic mean from the data:

X	1	2	3	4
F	5	4	9	16

Q13. A company has the following financial figures from its balance sheet:

- Capital: Rs 20 lakh
 - Reserve: Rs 6 lakh
 - Unsecured Loan: Rs 7 lakh
 - Current Assets: Rs 25 lakh
 - Intangible Assets: Rs 3 lakh
- What will be its net worth?**

Q14. Which statement best reflects the components and purpose of 'Learning and Development'?

- (a) 'Learning and Development' primarily focuses on improving interpersonal relationships among employees, enhancing office decorum, and fostering a positive work culture.
- (b) This process is aimed at the systematic enhancement of employees' skills, knowledge, and competencies to foster better performance in their current job roles.
- (c) 'Learning and Development' is concerned with increasing sales, improving customer service ratings, and reducing operational costs within an organization.
- (d) The focus of this process is on restructuring organizational hierarchy, optimizing workflow processes, and implementing new software systems.

Q15. Match the following:

FORECASTING TECHNIQUES	MEANING
1. Auto-Regressive Models	A. Describe time series in terms of two polynomials. In this model, the impact of previous lags and the residuals are considered to forecast the future values of the time series.
2. Moving-Average Models	B. We forecast the variable of interest using a linear combination of past values of the variable. The term mentioned in this model indicates that it is a regression of the variable against itself.
3. Autoregressive Moving Average Model	C. It is a common approach for modeling univariate time series. It involves modeling the error term as a linear combination of error terms occurring contemporaneously and at various times in the past.

- (a) 1-C, 2-B, 3-A
- (b) 1-A, 2-B, 3-C
- (c) 1-B, 2-C, 3-A
- (d) 1-B, 2-A, 3-C

Q16. What does the Free Form Essay Method of appraisal involve?

- (a) Using a checklist of predefined criteria to score an employee's performance, which promotes consistency and fairness in evaluations across different employees.
- (b) Asking employees to evaluate their own performance and set future goals, which is then reviewed and discussed with their manager to ensure alignment.

- (c) Writing an open-ended, narrative appraisal about an employee's performance, focusing on their job knowledge, attitudes, and development needs without using a strict format.
- (d) Implementing a series of tests and practical tasks for the employee to complete, measuring their skills and competencies directly against job requirements.

Q17. Which of the following statements best describes how organizational factors influence individual behavior in the workplace?

- (a) Individual behavior in an organization is solely determined by personal characteristics and has no correlation with organizational structure or culture.
- (b) Organizational factors such as the structure of the organization, availability of physical facilities, reward systems, personnel policies, and organizational culture significantly impact individual behavior, along with the quality of leadership.
- (c) The behavior of individuals within an organization is predominantly shaped by external factors such as family influences and societal norms, rather than organizational dynamics.
- (d) The primary driver of individual behavior in a workplace setting is the level of competition among colleagues and the pursuit of personal career advancement opportunities.

Q18. According to Abraham Maslow's hierarchy of needs theory, which of the following represents the correct order of the five basic levels of needs, starting from the most fundamental?

- (a) Social Needs, Physiological Needs, Self-esteem Needs, Safety/Security Needs, Self-actualization Needs
- (b) Safety/Security Needs, Social Needs, Physiological Needs, Self-esteem Needs, Self-actualization Needs
- (c) Physiological Needs, Safety/Security Needs, Social Needs, Self-esteem Needs, Self-actualization Needs
- (d) Self-actualization Needs, Self-esteem Needs, Social Needs, Safety/Security Needs, Physiological Needs

Q19. Which of the following statements accurately describes certain and impossible events?

Statement 1: A certain event occurs when its sample points are the same as the sample points in the sample space of a random experiment.

Statement 2: An impossible event occurs when it has no favorable outcome.

- (a) Statement 1 is correct, and Statement 2 is incorrect.
- (b) Statement 1 is incorrect, and Statement 2 is correct.
- (c) Both statements are correct.
- (d) Both statements are incorrect.

Q20. Which of the following is associated with the concept of reward?

- (a) Employee satisfaction with their job roles and responsibilities.
- (b) The availability of training programs within the organization.
- (c) Perceptions about the fairness of reward and punishment systems.
- (d) The frequency of team meetings held in the workplace.

Q21. What does the concept of approach-avoidance conflict refer to in psychology?

- (a) It is a scenario where an individual faces two or more goals, each with its own set of appealing and unappealing aspects, forcing the person to decide which goal to pursue and which to avoid.
- (b) A situation in which an individual feels equally compelled to engage in an activity and avoid it at the same time, because the activity presents both desirable and undesirable outcomes.
- (c) The psychological state of being motivated to join a group or participate in an activity because of its positive aspects, while simultaneously wanting to avoid it due to perceived negative consequences.
- (d) A condition where an individual is confronted with multiple avoidable tasks or goals, all of which are undesirable, but choosing one to avoid means having to engage with another.

Q22. In a sample of 7 measurements the radius of the circle was recorded as 4.32, 4.36, 4.33, 4.38, 4.39, 4.37, 4.36 find the point estimator of the true variance.

Q23. Which performance appraisal method is described as assessing employees based on their relative position and ranking them in order of merit?

- (a) Behaviorally Anchored Rating Scales (BARS)
- (b) Critical Incident Technique (CIT)
- (c) Straight Ranking Method
- (d) Management by Objectives (MBO)

Q24. In the conflict resolution process, what is the primary goal of the final agreement step?

- (a) To formally document the conflict and the steps taken towards its resolution for legal purposes, ensuring that all parties are aware of their obligations under company policy.
- (b) To persuade the conflicting parties to adopt the manager's preferred solution to the conflict, utilizing authority to enforce compliance.
- (c) To reach a mutually accepted agreement between the conflicting parties on one of the alternatives identified previously, potentially formalizing it through written contracts specifying actions and timeframes.
- (d) To assess and evaluate the performance of the individuals involved in the conflict based on their willingness to compromise, using this information for future reference in performance appraisals.

Q25. Given that the point estimate of the population variance is 0.00084 and the sum of squared deviation is 0.0042. Find the number of samples.

Q26. What is the primary function of HR databases within organizations?

- (a) To serve as a secure platform for online interviews and meetings, streamlining the recruitment and onboarding process for remote employees.
- (b) To track the productivity and performance metrics of employees in real-time, allowing managers to make immediate operational decisions.

- (c) To store personal and professional information about employees, assisting HR professionals in managing various tasks such as recording training details and handling recruitment processes.
- (d) To facilitate the direct transfer of salaries and bonuses to employee bank accounts, ensuring accurate and timely payment without the need for manual intervention.

Q27. What is the correct sequence of simulation methodology?

1. Specify the values of the parameter.
 2. Propose a new experiment.
 3. Construct a simulation model.
 4. Define the problem
 5. Evaluate results
- (a) 1, 2, 3, 4, 5
 - (b) 2, 3, 4, 1, 5
 - (c) 3, 1, 4, 2, 5
 - (d) 4, 3, 1, 5, 2

Q28. In the Simplex Method for linear programming, what does it indicate when there are no negative numbers present in the Z-row of the tableau?

- (a) The problem has multiple optimal solutions.
- (b) The current solution is the optimal solution.
- (c) The problem is infeasible and cannot be solved.
- (d) The problem is unbounded and has no optimal solution.

Q29. Last year, five randomly selected students took a math aptitude test before they began their statistics course. What linear regression equation best predicts statistics performance, based on math aptitude scores?

Student	Score on Aptitude Test	Statistics Grade
1	95	85
2	85	95
3	80	70
4	70	65
5	60	70

- (a) $\hat{y} = 26.768 + 0.644x$
- (b) $\hat{y} = 25.768 + 0.644x$
- (c) $\hat{y} = 23.768 + 0.644x$
- (d) $\hat{y} = 24.768 + 0.644x$

Q30. How do HRMS, HRIS, and HCM differ in the context of human resources management?

- (a) HRMS focuses exclusively on the recruitment and onboarding process, while HRIS is concerned with employee performance management, and HCM provides a comprehensive suite covering all aspects of human capital management.

- (b) HRMS is a broader term that includes financial management tools alongside human resources functions, whereas HRIS and HCM are specialized tools focused solely on HR tasks and employee lifecycle management.
- (c) HRIS is a type of HRMS designed specifically for managing personal employee information and payroll, while HCM encompasses broader strategic HR functions including talent management and succession planning.
- (d) There is essentially no functional difference between HRMS, HRIS, and HCM; historically, HRMS referred to a more complete solution, but re-branding has made these terms generally indistinguishable.

Q31. Suppose we have two variables, X and Y, and when we plot their data pairs on a scatter diagram, the points form an upward-sloping straight line. What can we infer about the relationship between X and Y based on the scatter diagram?

- (a) There is a direct relationship between X and Y.
- (b) There is a negative correlation between X and Y.
- (c) There is no relationship between X and Y.
- (d) There is a curvilinear relationship between X and Y.

Q32. How does the Reserve Bank of India (RBI) monitor priority sector lending by commercial banks?

- (a) By conducting annual surveys to assess the impact of loans provided to the priority sector and adjusting policies based on the outcomes of these surveys.
- (b) Through the collection of periodical 'Returns' from commercial banks, along with reviewing bank performance in various forums set up under the Lead Bank Scheme at State, District, and Block levels.
- (c) RBI directly involves itself in the loan approval process for priority sector lending, ensuring that commercial banks adhere to the stipulated minimum percentage of total credit.
- (d) By implementing a centralized software system that automatically tracks every loan issued by commercial banks to the priority sector, ensuring compliance with the mandated credit percentages.

Q33. What is the policy on levying loan-related and ad-hoc service charges on priority sector loans as per the guidelines?

- (a) Banks are required to impose standard loan-related and ad-hoc service charges on all priority sector loans, regardless of the loan amount, to maintain a uniform policy across all sectors.
- (b) For priority sector loans up to ₹25,000, banks should not levy any loan-related or ad-hoc service charges/inspection charges. For loans to SHGs/JLGs, this exemption applies per member, not to the group as a whole.
- (c) Loan-related and ad-hoc service charges are waived for all priority sector loans without any limit on the loan amount, promoting greater accessibility to financial services for underprivileged sectors.
- (d) A nominal fee is mandated for priority sector loans exceeding ₹50,000 to cover the administrative costs involved in processing and inspecting these loans, with exceptions for non-profit organizations.

Q34. Find the Harmonic mean of two numbers a and b , if their Arithmetic mean is 17 and the Geometric mean is 9.

Q35. In the context of the Simplex Method for linear programming, what changes when solving minimization problems compared to maximization problems?

- (a) The steps are reversed: The entering variable is determined by the smallest positive number in the Z-row, and the variable to be replaced is chosen based on the largest positive ratio.
- (b) The steps are identical: The entering variable is determined by the largest negative number in the Z-row, and the variable to be replaced is chosen based on the smallest positive ratio.
- (c) The steps are reversed: The entering variable is determined by the largest positive number in the Z-row, and the variable to be replaced is chosen based on the smallest negative ratio.
- (d) The steps are identical: The entering variable is determined by the largest positive number in the Z-row, and the variable to be replaced is chosen based on the smallest negative ratio.

Q36. What is the primary purpose of the Auditor's Report as described in the Companies (Auditor's Report) Order, 2020 (CARO)?

- (a) To provide a detailed analysis of the company's market position and future profitability prospects, offering investors and stakeholders insights into potential returns on investment.
- (b) To present the Auditor's opinion on the accuracy and fairness of the company's financial statements, ensuring compliance with legal and regulatory requirements, as outlined in CARO with its 21-item report format.
- (c) To outline the strategic plans and operational efficiencies of the company, assisting management in identifying areas for improvement and growth strategies.
- (d) To document the personal opinions and observations of the Auditor regarding the ethical practices and corporate governance of the company, aimed at enhancing transparency and accountability.

Q37. XYZ Ltd. has a current ratio of 4:1 and a quick ratio of 2.5:1. If the excess of current assets over quick assets (inventories) is Rs. 30,000, calculate the current liabilities.

Q38. Which of the following is not a type of short-term borrowing?

- (a) Loans that need to be paid back whenever the lender asks for it back.
- (b) Money borrowed from family members or businesses that have a close relationship with the company.
- (c) Savings accounts where the company keeps its money for future use.
- (d) Deposits and other short-term financial help not covered in the other options.

Directions (39-43): A college senior is interested in determining the relationship between her GPA and her weekly hours of study for her prior 6 terms in college. The data on her GPAs and hours of study, in the form of (Hours of Study, GPA), are (2.8, 12), (3.0, 15), (3.0, 18), (3.1, 20), (3.5, 30), and (3.9, 42).

Q39. What is the sum of squares for Hours of Study?

Q40. What is the sum of squares for GPA?

Q41. What is the sum of squares for Hours times GPA?

Q42. What is the covariance between Hours of Study and GPA?

Q43. What is the correlation between Hours of Study and GPA?

Q44. What does the Current Ratio signify in financial management?

- (a) The proportion of a company's long-term investments to its long-term liabilities, indicating the company's ability to finance its operations through long-term sources.
- (b) The ratio of a company's total assets to its total equity, demonstrating how much of the company is financed by shareholder equity versus creditor funding.
- (c) The ratio of Total Current Assets to Total Current Liabilities, used as an indicator of a company's liquidity and its ability to meet short-term obligations.
- (d) The percentage of revenue that remains after paying for direct production expenses, highlighting the company's profitability from its core business operations.

Q45. Which of the following is an incorrect description?

- (a) In a moderately symmetrical distribution, the empirical relationship between Mean, Median, and Mode is: $\text{Mean} - \text{Mod} = 3(\text{Mean} - \text{Median})$
- (b) Coefficient of variance is an absolute measure of dispersion.
- (c) Measure of skewness indicates the direction and extent of skewness in the distribution of numerical values in the data set.
- (d) Kurtosis refers to the flatness or peakedness in the region around the mode of the frequency curve.

Q46. What role does executing a model play in a simulation?

- (a) It is an inflexible rule that must be followed.
- (b) It involves restating values for the objective function and constraints.
- (c) It is essential for determining the effects of inventory rules.
- (d) It is a guideline that guides the creation of models.

Q47. Why is estimating receivables/bills considered simpler than estimating inventory?

- (a) Because receivables/bills are fixed assets, and their values do not fluctuate over time, making them easier to quantify compared to the dynamic nature of inventory assets.
- (b) Estimating receivables/bills is governed by consistent market practices specific to a business or location, making it more straightforward than the complex processes involved in inventory valuation.

- (c) The estimation of receivables/bills is directly related to sales volume, which is easier to predict with accuracy than the costs and quantities associated with inventory management.
- (d) Receivables/bills are not subject to depreciation or obsolescence like inventory, thus requiring less frequent assessment and simpler calculation methods.

Directions (48-52): Suppose we have the exam scores of 10 students in a class:

78,85,90,72,85,92,88,75,82,85.

Q48. What is the Mean of the original data?

- (a) 78.2
- (b) 83.2
- (c) 85.2
- (d) 90.2

Q49. What is the Median of the original data?

- (a) 72
- (b) 82
- (c) 85
- (d) 88

Q50. What is the Mode of the original data?

- (a) 72
- (b) 82
- (c) 85
- (d) 90

Q51. If the lowest score (72) is replaced by a score of 90, how does it affect the Mean, Median, and Mode?

- (a) Mean increases, Median remains the same, Mode remains the same
- (b) Mean remains the same, Median increases, Mode remains the same
- (c) Mean increases, Median remains the same, Mode increases
- (d) Mean increases, Median increases, Mode remains the same

Q52. If a new student joins the class and scores 95 on the exam, what will be the effect on the mean, median, and mode?

- (a) Mean increases, Median increases, Mode remains the same
- (b) Mean increases, Median remains the same, Mode remains the same
- (c) Mean increases, Median remains the same, Mode increases
- (d) Mean remains the same, Median remains the same, Mode remains the same

Q53. A company revalued its plant and machinery from Rs 30 lakh to Rs 80 lakh. Before this revaluation, the current ratio was 1.5:1, with current liabilities totaling Rs 120 lakh. What is the new current ratio?



- (a) 1.17
- (b) 1.50
- (c) 1.33
- (d) 1.90

Q54. Why are banks advised to limit the maturity of bank guarantees to not more than 10 years?

- (a) To avoid excessive risks associated with long-term market fluctuations, which can significantly impact the bank's financial stability and customer trust.
- (b) Because guarantees with a duration beyond 10 years can adversely affect a bank's Asset Liability Management by introducing potential long-term financial obligations that may not align with the bank's liquidity and risk management strategies.
- (c) To comply with international banking regulations that impose strict limits on the duration of financial guarantees to prevent systemic risks in the global banking system.
- (d) To ensure that banks maintain a high level of liquidity for day-to-day operations, as long-term commitments can tie up significant resources that could otherwise be used for lending and other profitable activities.

Q55. Which of the following statements is NOT true regarding the importance of security possession in bank loan appraisals?

- (a) The possession of security is crucial because it allows the bank to avoid all legal processes in case of a default, offering a straightforward path to recover the loan amount without any legal involvement.
- (b) Direct possession of security, such as through 'Lock and Key' advances, is favored to mitigate risks associated with the legal system's inefficiencies in resolving defaults.
- (c) Holding security, particularly inventory, directly impacts the overall risk rating of the loan proposal by providing a tangible form of protection against borrower default.
- (d) The method of 'Lock and Key' advances, where the bank holds the keys to the inventory storage, has been a traditional practice to ensure security for the loan.

Q56. A firm that adopts an aggressive working capital strategy would likely:

- (a) Hold a substantial amount of fixed assets
- (b) Minimize the amount of short-term borrowing
- (c) Finance fluctuating assets with long-term financing
- (d) Minimize the amount of funds held in very liquid assets

Q57. Fill in the Blanks: Differentiating Run Lengths:

- i. One strategy involves conducting simulations for a _____ period.
- ii. Alternatively, another approach is to extend the run length to gather a _____ sample size - a feasible option given the capacity to run models on computers.
- iii. A third method is to continue the simulation until reaching a state of equilibrium - simulated data aligns with _____ data. For instance, in scenarios, simulated demand conforms to its _____ frequencies.

- (a) Designated, substantial, historical, prevalent
- (b) Substantial, designated, historical, prevalent
- (c) Designated, substantial, historical, historical
- (d) Historical, substantial, historical, prevalent

Q58. What is the characteristic feature of Fixed Cost in production?

- (a) It varies directly with the level of production, increasing as production increases and decreasing as production decreases, to efficiently allocate resources per unit of output.
- (b) Fixed Cost remains unchanged regardless of the level of production, from zero to full capacity utilization, making it difficult to allocate on a per-unit basis. Examples include depreciation.
- (c) It is the sum of all costs that fluctuate with sales volume, such as materials and labor, ensuring that the cost per unit remains constant regardless of production scale.
- (d) Fixed Cost is determined by the market and external economic conditions, adjusting automatically to maintain competitive pricing and profitability margins.

Q59. Why is it important to assess the Fixed Assets Coverage Ratio (FACR) and Security Margin Coverage Ratio (SMCR) when evaluating a loan application?

- (a) To determine the maximum loan amount that can be offered based on the current market value of the borrower's assets and the historical performance of similar assets.
- (b) Because these ratios help in understanding the potential for future asset appreciation, thus providing insights into the borrower's long-term financial stability and growth prospects.
- (c) These ratios provide insight into the security and recovery prospects in case of borrower default, by assessing the value of fixed assets and security margins as fallback options.
- (d) To calculate the interest rates and loan terms most beneficial for the bank, ensuring maximum profitability from the loan while minimizing the risk of default.

Q60. What is the recommended practice for participating lenders regarding the appraisal of loan proposals?

- (a) Lenders should prioritize loan proposals based on the applicant's credit score, ensuring that those with higher scores are appraised and responded to first.
- (b) Lenders are advised to implement procedures that allow for the appraisal of loan proposals in a time-bound manner, ensuring decisions are communicated within a reasonable timeframe.
- (c) It is suggested that lenders outsource the appraisal process to external agencies to expedite decision-making and increase the efficiency of loan processing.
- (d) Participating lenders should only consider proposals that come with complete security upfront, to reduce appraisal time and hasten the decision-making process.

Q61. What is cluster sampling?

- (a) Selecting individuals from the population who share similar characteristics.
- (b) Dividing the population into homogeneous groups and randomly selecting entire groups to be part of the sample.
- (c) Choosing individuals who are conveniently available for the study.
- (d) Sampling individuals based on their availability at a specific time.

Directions (62-65): A large private bank is in the process of selecting a new Chief Compliance Officer (CCO). The Board has constituted a senior executive-level selection committee to oversee this process. After thorough evaluations, the committee has recommended three top candidates based on merit. Now, the Board must decide whom to appoint. Additionally, the bank's MD & CEO has prepared the required 'fit and proper' certification for the final candidate, and they are ready to inform the Department of Supervision at the RBI about the prospective appointment and provide a detailed rationale for their choice, in compliance with supervisory requirements.

Q62. What could be a potential reason for the RBI to reject the appointment of a candidate as CCO?

- (a) The candidate's experience primarily comes from sectors other than banking.
- (b) The candidate has not been ranked as the top choice by the selection committee.
- (c) The detailed rationale for appointment submitted lacks sufficient evidence of the candidate's compliance expertise.
- (d) The bank failed to provide a yearly audit report along with the appointment details.

Q63. Which document is critical to submit to the RBI before finalizing the CCO's appointment, as per the regulatory requirements?

- (a) A comprehensive background check report from an independent third-party.
- (b) A 'fit and proper' certification by the MD & CEO confirming the candidate meets specific supervisory requirements.
- (c) An endorsement letter from the board members not serving on the selection committee.
- (d) A financial stability statement from the candidate's previous employer.

Q64. What consequence might the bank face if it fails to provide prior intimation to the RBI about the premature transfer/removal of the CCO?

- (a) Immediate re-evaluation of the bank's operational licenses.
- (b) A mandatory review of the bank's internal compliance policies.
- (c) Possible penalties or a formal warning from the RBI.
- (d) A compulsory freeze on all upper management hiring for a six-month period.

Q65. In the event of a discrepancy between the selection committee's recommendation and the Board's final decision, what is the most likely protocol for the bank to follow before the appointment of a CCO?

- (a) Re-convene the selection committee to reassess the candidates' rankings.
- (b) Seek additional external legal advice to validate the Board's decision.
- (c) Prepare a detailed report comparing the top candidates for a reassessment by the Board.
- (d) Submit both the committee's recommendation and the Board's final choice to the RBI for approval.

Q66. According to the RBI, fraud encompasses all instances wherein banks have been put to loss through:

- (a) Poor financial performance of borrowers
- (b) Mismanagement of bank funds by its employees
- (c) Deliberate deception to secure unfair or unlawful gain
- (d) External economic factors affecting borrowers

Q67. Which of the following statements is NOT true regarding the significance of analyzing financial statements and auditors' reports in the context of renewing working capital limits?

- (a) The analysis is primarily conducted to calculate the exact tax liabilities of the business, ensuring that the bank can accurately report its tax deductions from interest earned.
- (b) It allows the bank to understand the financial health of the business, including how funds have been used or potentially diverted, profitability, and effectiveness in debt realization.
- (c) This detailed analysis helps in making informed decisions regarding the renewal of working capital limits by assessing the business's financial stability and operational efficiency.
- (d) Understanding the use or diversion of funds, realisation of debts, and overall profitability from these reports is crucial for banks when considering the renewal of working capital limits.

Q68. What is the origin of the word "Statistics"?

- (a) Latin word "statisticum"
- (b) Italian word "statistia"
- (c) German word "statistik"
- (d) All of the above

Q69. Which of the following is not a method of detecting wrong mention of inventory in a stock statement?

- (a) Stock audit
- (b) Inspection of stocks
- (c) Analysis of financial statements
- (d) Cross-check from the balance sheet figure

Q70. What are market risks in the context of financial management?

- (a) Risks associated with the failure of internal processes, people, and systems within a financial institution, leading to unexpected financial losses.
- (b) The uncertainty in financial markets due to changes in commodity prices, which primarily affects companies involved in the trading of physical goods.
- (c) Risks stemming from adverse movements in market variables such as interest rates and exchange rates, which are beyond the control of an individual or institution.
- (d) The risk that a borrower will default on a loan due to economic downturns, affecting the lender's ability to recover the loaned amount and associated interest.

Q71. Which of the following statements is NOT true regarding the practice of reporting wilful defaulters to Credit Information Companies by banks and financial institutions?

- (a) Reporting wilful defaulters helps in improving the accuracy and effectiveness of credit scoring models, enabling credit information companies to offer more reliable credit scores.
- (b) The primary aim of reporting wilful defaulters is to facilitate legal action against them by providing a comprehensive database to law enforcement agencies.
- (c) The process of reporting wilful defaulters to Credit Information Companies is intended to enhance transparency and risk assessment in the financial system.
- (d) Sharing information about wilful defaulters allows banks and financial institutions to make informed lending decisions and manage credit risk more effectively.

Q72. Which statement reflects a limitation of statistical inference?

- (a) Statistical inference guarantees 100% accuracy in predictions.
- (b) Statistical inference relies solely on qualitative data.
- (c) Statistical inference may not accurately represent the entire population.
- (d) Statistical inference is unaffected by sample size.

Q73. Within what timeframe must the Resolution Professional appoint valuers after being appointed for the Corporate Debtor's case?

- (a) The RP has 30 days from their appointment to select and appoint the valuers.
- (b) The RP is required to appoint valuers immediately upon appointment, without any specified delay.
- (c) The RP must appoint two valuers registered with IBBI within 7 days of their appointment.
- (d) There is no specified timeframe for the RP to appoint valuers as per the regulations.

Q74. Under what circumstances is a transaction classified as "extortionate" according to the avoidance provisions in the Code?

- (a) When the transaction involves a routine financial arrangement that inadvertently causes harm to a creditor.
- (b) When the borrower engages in a transaction that is not customary in their usual business practices but is legally compliant.
- (c) When the borrower is part of a credit transaction that involves unreasonable terms, not in compliance with law and results in undue benefit.
- (d) When the borrower's transaction involves defrauding a creditor through deliberate undervaluation of assets.

Q75. What is the requirement for banks and financial institutions (FIs) in terms of reporting information on non-cooperative borrowers?

- (a) They must report information on non-cooperative borrowers to CRILC annually, providing a comprehensive yearly overview of all such accounts.
- (b) Banks/FIs are required to report detailed financial transactions of non-cooperative borrowers to CRILC on a daily basis for constant monitoring.

- (c) They are required to report information on non-cooperative borrowers to CRILC within 21 days from the end of the relevant financial year.
- (d) Banks/FIs must report information on non-cooperative borrowers to CRILC within 21 days from the close of the relevant quarter, ensuring timely updates.

Q76. Which of the following statements best describes the principle behind random sampling?

- (a) "The larger the sample size, the more accurate the results."
- (b) "Every individual in the population has an equal chance of being selected."
- (c) "Only individuals who meet specific criteria are included in the sample."
- (d) "Researchers select individuals based on their judgment."

Q77. What does the term "confidence level" represent in statistical analysis?

- (a) The likelihood that a sample accurately represents the population.
- (b) The range of values within which a sample statistic is likely to fall.
- (c) The degree of certainty that a population parameter falls within an interval estimate.
- (d) The percentage of the population that is captured by a sample.

Q78. Which formula correctly represents the Inventory Turnover Ratio?

- (a) $\text{Inventory Turnover Ratio} = \text{Average Inventory} / \text{Net Sales}$
- (b) $\text{Inventory Turnover Ratio} = \text{Net Sales} / \text{Average Inventory}$
- (c) $\text{Inventory Turnover Ratio} = \text{Cost of Goods Sold} / \text{Net Sales}$
- (d) $\text{Inventory Turnover Ratio} = \text{Net Sales} / \text{Total Inventory}$

Q79. What role do Lok Adalats play in the context of dispute resolution between commercial banks, financial institutions, and their clients?

- (a) Lok Adalats act as an appellate tribunal where decisions made by banking ombudsmen can be challenged and reviewed for cases involving large amounts exceeding Rs. 20 lakh.
- (b) They serve as informal forums for public debates on policy changes in the banking sector, allowing banks and their clients to discuss and settle disputes publicly.
- (c) Lok Adalats provide a statutory mechanism for the amicable settlement of disputes involving dues up to Rs. 20 lakh, as encouraged by guidelines issued by the Reserve Bank of India.
- (d) They function as training and awareness camps where clients of banks and financial institutions are educated about their rights and responsibilities to prevent future disputes.

Q80. In the context of the Committee of Creditors' operations, what percentage of votes by value is necessary for a decision on critical matters to be approved?

- (a) A majority of 33% by value is sufficient for the approval of critical matters.
- (b) Decisions regarding routine matters require a 51% majority by value.
- (c) Critical matters require a majority of 66% by value for approval.
- (d) A 90% majority by value is necessary for the withdrawal of an Application for Resolution under section 12A.

Q81. What is a characteristic of a well-designed questionnaire?

- (a) Lengthiness to cover all possible aspects of the research topic.
- (b) Inclusion of leading questions to guide respondents towards desired answers.
- (c) Clear and concise wording to avoid confusion and misinterpretation.
- (d) Limitation to closed-ended questions to simplify data analysis.

Q82. What condition must be met for a Resolution Plan (RP) that does not involve restructuring or change in ownership to be considered successfully implemented?

- (a) The borrower must demonstrate a continuous improvement in financial performance for 180 days following the end of the Review Period to avoid any restructuring or change in ownership.
- (b) All existing debts to the lenders must be fully settled within 180 days from the start of the Review Period, ensuring that the borrower is not in default with any lender.
- (c) The borrower should not be in default with any of the lenders as on the 180th day from the end of the Review Period to consider the Resolution Plan as implemented.
- (d) A substantial increase in the borrower's assets value must be observed by the end of the 180 days from the Review Period's close, indicating successful avoidance of restructuring.

Q83. What does the Central Limit Theorem state?

- (a) It asserts that the mean of the population is always equal to the mean of the sample.
- (b) It guarantees that the distribution of sample means will always be normally distributed.
- (c) It suggests that as the sample size increases, the distribution of sample means approaches a normal distribution regardless of the shape of the population distribution.
- (d) It ensures that the standard deviation of the population is always equal to the standard deviation of the sample.

Directions (84-88): A firm has a Capital of Rs. 200, Reserve of Rs. 230 Term Loan of Rs. 180, Advance from customers of Rs. 40, sundry creditors Rs. 100, Bank CC limit balance of Rs. 400, Fixed Assets Rs. 300, Preliminary expenses Rs. 80, Debit balance of profit and loss account balance Rs. 30, advance tax paid Rs. 20, cash on hand Rs. 20, Stock Rs. 400 and sundry creditors Rs. 300. based on the above information:

Q84. Calculate the Tangible Net worth of the firm.

Q85. In the above problem, the current ratio would be

- (a) 1.25:1
- (b) 1.28:1
- (c) 1.33:1
- (d) 1.37:1

Q86. In the above problem, the total outside liabilities to tangible net worth.....

- (a) 1:1
- (b) 1.8:1
- (c) 2.1:1
- (d) 2.25:1

Q87. If the sales are Rs. 2000, stock turnover Ratio is

- (a) 5 times
- (b) 6 times
- (c) 3 times
- (d) 2 times

Q88. If the sales are Rs. 3000, the debt collection period and debit turnover ratio would be:

- (a) 1 month and 12 times
- (b) 1.2 month and 10 times
- (c) 1.5 month and 8 times
- (d) 2 month and 6 times

Q89. A small-scale industry (SSI) unit has a sanctioned working capital limit of Rs. 60 lakh. What should be the projected annual turnover of the unit?

- (a) Rs. 2.40 crore
- (b) Rs. 3.00 crore
- (c) Rs. 4.00 crore
- (d) Rs. 5.00 crore

Q90. What is the full form of GRC framework?

- (a) Government, regulations, compliance
- (b) Governance, Regulations, control RAT
- (c) Government, Risk, Compliance
- (d) Governance, Risk, Compliance

Q91. Find the Mean Deviation and Coefficient of Mean Deviation from the data: 12, 20, 39, 46, 54, 61, 78, 90.

- (a) MD= 20.75, Coefficient of MD= 0.415
- (b) MD= 21, Coefficient of MD= 1
- (c) MD= 21.75, Coefficient of MD= 0.5
- (d) MD= 22, Coefficient of MD= 1.5

Q92. If the mode of the data is 24.5, what is the missing frequency?

CI	0-10	10-20	20-30	30-40	40-50
F	4	8	10	x	8



Q93. Which among the following is/are true about the coefficient of correlation?

1. When two variables have a perfect curvilinear relationship, say all points in the scatter diagram are on a circle, the correlation coefficient will be one.
 2. If the sample chosen is heterogeneous, it may give rise to a higher correlation coefficient value, even when no correlation exists.
 3. It does not indicate any cause-effect relationship between the two.
- (a) (2) and (3)
 (b) (1) only
 (c) (3) only
 (d) None of the above

Q94. A random sample of 120 students from a large university yields a mean GPA of 2.71 with a sample standard deviation of 0.51. Construct a 90% confidence interval for the mean GPA of all students at the university.

- (a) 2.98, 2.89
 (b) 2.36, 2.97
 (c) 2.63, 2.79
 (d) None of the above

Q95. Calculate the regression equations of Y on X from the data given below, taking deviations from a actual means of X and Y. Also estimate demand when price is Rs. 20.

Price	10	12	13	12	16	15
Amount demanded	40	38	43	45	37	43

Q96. Read the following statements carefully and choose the correct option.

Statement 1: Irregular Variations can be easily isolated mathematically.

Statement 2: It requires deliberate attempts to correct the Irregular Variations.

- (a) Statement 1 is correct, and Statement 2 is incorrect
 (b) Statement 1 is incorrect, and Statement 2 is correct
 (c) Both the Statements are correct
 (d) Both the Statements are incorrect

Q97. A card is drawn at random from a well-shuffled pack of cards. What is the probability that it is either a spade or a king?

- (a) $13/52$
 (b) $4/52$
 (c) $4/13$
 (d) $2/13$

Q98. When the value of the _____ variable is zero, the corresponding resource is called scarce.

- (a) Surplus
- (b) Decision
- (c) Slack
- (d) Objective

Q99. Read the following statements carefully and choose the correct ones about the concept of "Skewness"?

1. Skewness is the degree of distortion from the symmetrical bell curve or the normal distribution.
 2. It measures the lack of symmetry in data distribution.
 3. There are two types of skewness– positive and negative.
 4. If the bulk of observations is on the left side of the mean and the positive side is longer, it is called the positive skewness of the distribution.
 5. In this case, the mean and median are greater than the mode.
 6. If the bulk of observations is on the right side of the mean and the negative side is longer, it is called the negative skewness of the distribution.
 7. In this case, the mean and median are less than the mode.
- (a) (2), (4), (5), (6), and (7)
 - (b) (1), (3), (5), (6), and (7)
 - (c) (1), (2), (3), (4), and (5)
 - (d) All of the above

Q100. Which statement best reflects Robert Owen's beliefs about management as outlined in the historical discussion?

- (a) Robert Owen believed that the main responsibility of a manager was to maintain the mechanical efficiency of workplace machinery to ensure productivity.
- (b) Charles Babbage and Robert Owen agreed that the best investment for a manager was in advanced technology rather than in human workers.
- (c) Robert Owen considered workers as essential to productivity and advocated improving their conditions to achieve better results.
- (d) Unlike Charles Babbage, Robert Owen was indifferent to the conditions of workers and focused solely on the financial aspects of management.

Solutions

S1. Ans.(2000000)

Sol. Total Assets - Long-term Assets = Current Assets

Current Assets = $75 - 50 = 25$ lacs

Current Ratio = Current Assets / Current Liabilities

$1.25:1 = 25 / \text{Current Liabilities}$

Current Liabilities = $25 / 1.25 = 20$ lacs

S2. Ans.(c)

Sol. Only (ii) and (iii) are not the benefit of simple random sampling:

- (i) **We can calculate the accuracy of the results:** This is a benefit of using simple random sampling, as it allows for statistical inference and calculations of confidence intervals and margins of error.
- (ii) **The results are always representative:** This is not necessarily true. Simple random sampling aims to be representative, but it can sometimes lead to unrepresentative samples purely by chance, especially in smaller populations or samples.
- (iii) **Interviewers can choose respondents freely:** This is incorrect in the context of simple random sampling. In this sampling method, participants are chosen entirely at random, not at the discretion of the interviewer.

S3. Ans.(360000)

Sol. Current Ratio = $2.5:1$

Current Liabilities = Rs 8 lakh

Current Assets = $2.5 \times 8 = \text{Rs } 20$ lakh

Working Capital = Current Assets - Current Liabilities

= $20 - 8 = \text{Rs } 12$ lakh

Total Revenue = Working Capital \times Working Capital Turnover Ratio

= $12 \times 5 = \text{Rs } 60$ lakh

Net Profit = 6% of Rs 60 lakh

= $(6/100) \times 60,00,000 = \text{Rs } 3,60,000$

S4. Ans.(b)

Sol. Managerial role: This relates to performing managerial functions like planning future manpower, recruiting, utilising by placement, retaining, motivating-integrating people and their role, performance and potential assessment, planning the growth of individuals, etc.

S5. Ans.(d)

Sol. The dependent variable is on the Y-axis while the Independent Variable is on the X-axis: This is the standard convention for representing a scatter diagram. The Y-axis represents the dependent variable, which is the variable we are trying to predict or explain, and the X-axis represents the independent variable, which is the variable we use to make predictions or explanations.

A scatter diagram shows the relationship between two variables, and when the data points are roughly aligned along a straight line, it indicates a linear relationship between the variables. If the data points form a curved pattern on the scatter diagram, it indicates a curvilinear relationship between the variables. In such cases, a line may not be the best fit for the data.

S6. Ans.(a)

Sol. The correct answer is (a) because it directly focuses on obtaining firsthand insights from those who perform, supervise, or are affected by the job. This approach ensures a thorough understanding of the actual job duties and requirements, which is essential for effective job analysis.

S7. Ans.(11.69<>11.71)

Sol. Gross working Capital = Total Current Assets

Gross working Capital = 2.4 + 1.6 + 3.4 + 4 + 0.3 = 11.70 lac

S8. Ans.(9.89<>9.91)

Sol. WC Gap = working capital - (trade creditors-current liabilities)

WC Gap = 11.7 - (2.6 - 0.8) = 9.90 lac

S9. Ans.(2.92<>2.95)

Sol. Current assets (2.4 + 1.6 + 3.4 + 4 + 0.3)

2nd method: Margin required 25% of total current assets

= 11.7 lac (margin 25% of current assets)

= 2.925 lacs = 2.93 lac

S10. Ans.(6.95<>6.99)

Sol. MPBF = Working capital Gap - actual networking capital (margin)

= 9.90 - 2.93 = 6.97

S11. Ans.(a)

Sol. Ergonomics is an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely.

S12. Ans.(2<>3)

Sol.

$$\text{H.M.} = \frac{n}{\sum_{i=1}^n \frac{f_i}{x_i}}$$

$$= 34/14$$

$$= 2.428$$

S13. Ans.(23)

Sol. Net Worth = Capital + Reserves – Intangible Assets
= 20 + 6 – 3
= Rs 23 lakh

S14. Ans.(b)

Sol. This process is aimed at the systematic enhancement of employees' skills, knowledge, and competencies to foster better performance in their current job roles.

S15. Ans.(c)

Sol. Auto-Regressive Model: This model predicts the variable of interest by combining past values of the same variable linearly. The term used in this model suggests that it involves regressing the variable against its own lagged values.

Moving Average Model: This method is frequently used to analyze single-variable time series data. It encompasses the modeling of the error term as a linear combination of errors that arise both simultaneously and at different points in the past.

Autoregressive Moving Average Model: Express time series using two polynomials. In this model, the influence of preceding periods and the leftover variations are taken into account to predict future values of the time series.

S16. Ans.(c)

Sol. The Free Form Essay Method is a type of performance appraisal where the appraiser writes a narrative or essay about the employee being reviewed. This method is unstructured, meaning there isn't a specific format or checklist to follow. Instead, the appraiser has the freedom to comment on any aspect of the employee's performance that they find noteworthy, including the employee's job knowledge, their attitude at work, and areas where they might need development. This approach allows for a detailed and personalized appraisal, but it can also introduce subjectivity, as evaluations are based on the appraiser's personal judgment and perspective. Comparing employees can be difficult with this method because each appraisal is unique and may focus on different aspects of performance. It's often used for top management positions where the complexity of the role requires a more nuanced evaluation than what structured methods provide.

S17. Ans.(b)

Sol. Option (b) accurately reflects the influence of organizational factors on individual behavior in the workplace, as described in the text. It highlights key factors such as organizational structure, physical facilities, reward systems, personnel policies, and culture, as well as the impact of leadership quality.

S18. Ans.(c)

Sol. Option (c) presents the correct order of Abraham Maslow's hierarchy of needs, starting with the most fundamental physiological needs, followed by safety/security needs, social needs, self-

esteem needs, and self-actualization needs at the top of the hierarchy. This order reflects Maslow's theory that these needs are arranged hierarchically, with each level needing to be fulfilled before the next level becomes prominent.

S19. Ans.(c)

Sol. Statement 1 accurately describes a certain event. A certain event occurs when its sample points cover all possibilities in the sample space of a random experiment, making it certain to happen.

Statement 2, on the other hand, is also correct. An impossible event has no favorable outcomes or never occurs. It corresponds to the null set, and it does not have any favorable outcomes.

S20. Ans.(c)

Sol. Option (c) is associated with the concept of reward. It refers to employees' perceptions about the fairness of reward and punishment systems, which are essential aspects of how rewards are perceived within an organization.

S21. Ans.(b)

Sol. Approach-avoidance conflict is a psychological phenomenon where an individual is torn between the desire to pursue a goal due to its positive, appealing aspects and the urge to avoid it because of its negative, unappealing aspects. This conflict arises from a single goal or situation that embodies both positive and negative characteristics for the individual. For instance, a person might be attracted to the idea of a high-paying job (approach) because of the financial security it offers, but at the same time, might be deterred (avoidance) by the job's long hours and high-stress levels. This type of conflict is unique because it involves a single goal or decision that has both appealing and unappealing elements, making the decision-making process particularly challenging.

S22. Ans.(0.00056)

Sol.

$$\text{Mean} = \sum x/n$$

$$\text{Mean} = 30.51/7$$

$$\text{Mean} = 4.35$$

$$\sum (x - \bar{x})^2 = 0.0034$$

$$s^2 = \frac{\sum (x - \bar{x})^2}{n-1}$$

$$s^2 = 0.0034/6$$

$$s^2 = 0.00056$$

S23. Ans.(c)

Sol. The Straight Ranking Method, where employees are ranked in order of merit based on their performance. This method is characterized by assessing individuals' relative positions and grouping them accordingly.

S24. Ans.(c)

Sol. The primary goal of the final agreement step in the conflict resolution process is to achieve a mutually accepted agreement between the conflicting parties. This step focuses on consensus-building around one of the alternatives identified in the previous step of the resolution process. The aim is to ensure that both parties are satisfied with the outcome and agree to the terms of the resolution. To formalize this agreement, some managers might choose to draft a contract outlining the specific actions to be taken and the timelines for these actions. However, it might also be sufficient to simply meet with the individuals involved and communicate the agreed-upon solution in a polite and clear manner. This step is crucial for ensuring that the resolution is not only agreed upon but also actionable and time-bound, thereby minimizing the chances of future conflicts arising from the same issue.

S25. Ans.(6)

Sol.

The formula for the point estimator of the population variance is:

$$s^2 = \frac{\sum (x - \bar{x})^2}{n - 1}$$

$$0.00084 = 0.0042/n-1$$

$$n-1 = 0.0042/0.00084$$

$$n-1 = 420/84$$

$$n-1 = 5$$

$$n = 6$$

S26. Ans.(c)

Sol. HR databases are centralized systems used by HR professionals to store and manage extensive personal and professional information of employees. They are crucial for efficiently handling various HR-related tasks, such as monitoring employee training progress, streamlining recruitment efforts, and more. By offering a structured way to collect, store, and access employee data, these databases support the HR department's ability to make informed decisions, enhance employee management processes, and ultimately contribute to the organization's overall efficiency.

S27. Ans.(d)

Sol. The sequence of Simulation Methodology is:

Define the problem: This is the starting point where you establish what you want to achieve with the simulation.

Construct a simulation model: Once the problem is defined, you create a model that simulates the system or process you're studying.

Specify the values of the parameter: After building the model, you input the necessary variables and parameters.

Evaluate results: You analyze the simulation results to draw conclusions and make decisions.

Propose a new experiment: This step involves running simulations and proposing scenarios to study the system's behavior.

S28. Ans.(b)

Sol. When there are no negative numbers in the Z-row of the tableau in the Simplex Method, it indicates that the current solution is the optimal solution to the linear programming problem. The objective function cannot be further improved, and the values of the decision variables in the current solution provide the best possible outcome according to the given constraints and objective function. This condition is a termination criterion for the Simplex Method, indicating that the optimization process is complete, and the optimal solution has been reached.

S29. Ans.(a)

Sol.

Student	X	Y	(x-x̄)	(y-ȳ)	(x-x̄) ²	(y-ȳ) ²	(x-x̄)(y-ȳ)
1	95	85	17	8	289	64	136
2	85	95	7	18	49	324	126
3	80	70	2	-7	4	49	-14
4	70	65	-8	-12	64	144	96
5	60	70	-18	-7	324	49	126
Sum	390	385			730	630	470
Mean	78	77					

$$b_1 = \frac{\sum [(x_i - \bar{x})(y_i - \bar{y})]}{\sum [(x_i - \bar{x})^2]}$$

$$b_1 = 470/730$$

$$b_1 = 0.644$$

$$b_0 = \bar{y} - b_1 * \bar{x}$$

$$b_0 = 77 - (0.644)(78)$$

$$b_0 = 26.768$$

Therefore, the regression equation is: $\hat{y} = 26.768 + 0.644x$

S30. Ans.(d)

Sol. HRMS (Human Resource Management System), HRIS (Human Resource Information System), and HCM (Human Capital Management) are terms often used interchangeably in the context of human resources management software. Despite historical distinctions where HRMS was considered a more comprehensive solution, encompassing a wider array of HR functionalities compared to HRIS and even HCM, modern re-branding efforts by many software providers have blurred these lines. Today, there is no significant functional difference between systems offered

under these different titles, with each type of system generally providing a full suite of tools to manage various aspects of HR from employee data management to recruitment, payroll, performance management, and more. The choice of term more often reflects marketing strategies rather than distinct product capabilities.

S31. Ans.(a)

Sol. In a scatter diagram, an upward-sloping straight line indicates a direct relationship between the two variables being plotted. A direct relationship implies that as the value of one variable (X) increases, the value of the other variable (Y) also increases.

S32. Ans.(b)

Sol. The Reserve Bank of India (RBI) oversees priority sector lending by commercial banks primarily through two mechanisms. Firstly, it collects periodical 'Returns' from these banks, which are essentially reports detailing the extent and nature of their lending to the priority sector. These Returns allow the RBI to monitor whether banks are meeting the required minimum percentage of their total credit allocations to this sector. Secondly, the RBI reviews the performance of banks in various forums established under the Lead Bank Scheme. This Scheme organizes forums at the State, District, and Block levels, providing a structured platform for reviewing and discussing the progress and effectiveness of priority sector lending among commercial banks. These mechanisms ensure that priority sector lending targets are met and that banks are accountable for their contributions to sectors deemed as priority by the RBI.

S33. Ans.(b)

Sol. According to the guidelines, there is a specific exemption from loan-related and adhoc service charges for priority sector loans up to ₹25,000. This means that for loans within this threshold, banks are not allowed to levy any additional charges that are typically associated with loan processing or inspection. The aim of this policy is to make small-scale financing more accessible and affordable for individuals and entities within the priority sector. Additionally, for loans extended to Self-Help Groups (SHGs) and Joint Liability Groups (JLGs), this exemption is applied per member rather than to the group collectively. This nuanced approach ensures that the benefits of the exemption reach individual members of these groups, thereby supporting the broader goal of financial inclusion.

S34. Ans.(4.76)

Sol.

$$A.M. \times H.M. = (G.M.)^2$$

$$17 \times H.M = 81$$

$$H.M = 81 / 17$$

$$= 4.764$$



S35. Ans.(b)

Sol. When solving minimization problems using the Simplex Method, the steps remain the same as for maximization problems. Therefore, the entering variable is determined by selecting the variable associated with the largest positive value in the Z-row, just as in maximization problems. Similarly, the variable to be replaced is decided by choosing the smallest positive ratio, as before. This ensures that the steps for selecting variables and performing the pivot operation are consistent regardless of whether the objective is to maximize or minimize.

S36. Ans.(b)

Sol. The Auditor's Report serves as a formal opinion or declaration by the auditor regarding the accuracy and fairness of a company's financial statements. Specifically, under the Companies (Auditor's Report) Order, 2020 (CARO), the auditor is required to report on a statutory format that includes 21 items. These items cover various legal and regulatory requirements that the company must comply with. The primary purpose of this report is not to assess the company's market position or future profitability, nor to comment on its strategic plans or ethical practices. Instead, it focuses on providing an unbiased opinion on whether the financial statements present a true and fair view of the company's financial position, results of its operations, and its cash flows. This helps ensure transparency, reliability, and accountability in financial reporting, thereby serving the interests of investors, stakeholders, and regulatory bodies.

S37. Ans.(20000)

Sol.

Let Current Liabilities = X

1. Using the Current Ratio:

$$\text{Current Assets} = 4X$$

2. Using the Quick Ratio:

$$\text{Quick Assets} = 2.5X$$

3. Given:

$$\text{Inventories} = \text{Current Assets} - \text{Quick Assets}$$

$$30,000 = 4X - 2.5X$$

$$30,000 = 1.5X$$

4. Solving for X (Current Liabilities):

$$X = \frac{30,000}{1.5} = 20,000$$

Thus, Current Liabilities = Rs. 20,000.

S38. Ans.(c)

Sol. The option that is NOT a type of short-term borrowing is C, a savings account where the company keeps its money for future use. Short-term borrowings are about the money a company needs to pay back soon, like loans that can be asked for back at any time, money borrowed from

close associates or related businesses, and other short-term financial supports like deposits. Savings accounts, however, represent the company's funds set aside for future needs and are not borrowed money that needs to be repaid.

S39. Ans.(397.5)

Sol. The SSHours = $3,757 - 1372/6 = 397.5$

S40. Ans.(7<>8)

Sol. The SSGPA = $62.91 - 19.32/6 = 7.265$

S41. Ans.(22<>23)

Sol. The SSHours*GPA = $463.4 - 19.3*137/6 = 22.717$

S42. Ans.(4<>5)

Sol. Cov (Hours, GPA) = $22.717 / (6-1) = 4.543$

S43. Ans.(0.993<>0.996)

Sol. Corr (Hours, GPA) = $22.717 / (\sqrt{0.828} * \sqrt{628.833}) = 0.9954$

S44. Ans.(c)

Sol. The Current Ratio is a financial metric used to evaluate a company's liquidity by comparing its Total Current Assets to its Total Current Liabilities. It is expressed as a simple ratio and serves as an indicator of the company's ability to meet its short-term obligations with its short-term assets. The benchmark for a healthy Current Ratio is often cited as 1.33:1, suggesting that for every unit of liability, there are 1.33 units of assets available. This ratio signifies that a company has a surplus of assets over liabilities in the short term, which is technically referred to as the Net Working Capital (NWC). A higher Current Ratio indicates better liquidity, meaning the company is in a good position to cover its short-term liabilities with its short-term assets.

S45. Ans.(b)

Sol. Coefficient of variance is not an absolute but a relative measure of dispersion.

- Relative measures of dispersion are:
- Coefficient of range
- Coefficient of quartile deviation
- Coefficient of mean deviation
- Coefficient of variance

S46. Ans.(d)

Sol. Building and executing a model is only a guideline, and they are not rigid rules." This indicates that the process of executing a simulation model is not a strict, fixed rule that must be followed without deviation. Instead, it serves as a general guideline that aids in the construction and development of the models.

S47. Ans.(b)

Sol. The process of estimating receivables/bills is simpler primarily because it follows established market practices unique to each business or locality. Unlike inventory, which demands a detailed analysis of stock levels, price changes, and potential obsolescence, receivables/bills estimation relies on a more consistent framework. This predictability and uniformity in approach reduce complexity, making it a more straightforward task compared to the multifaceted nature of inventory management.

S48. Ans.(b)

Sol. The mean is calculated by adding up all the values and dividing by the total number of values.

$$\begin{aligned}\text{Mean} &= 78 + 85 + 90 + 72 + 85 + 92 + 88 + 75 + 82 + 85 / 10 \\ &= 832 / 10 \\ &= 83.2\end{aligned}$$

S49. Ans.(c)

Sol. To find the median, we first arrange the scores in ascending order:

72, 75, 78, 82, 85, 85, 85, 88, 90, 92

Since there are 10 scores, the median is the average of the 5th and 6th scores, which are both 85.

The median score is 85.

S50. Ans.(c)

Sol. The mode is the score(s) that occur with the highest frequency. In this case, the score 85 occurs three times, which is more than any other score.

The mode score is 85.

S51. Ans.(a)

Sol. Original Data: 78, 85, 90, 72, 85, 92, 88, 75, 82, 85

Modified Data: 78, 85, 90, 90, 85, 92, 88, 75, 82, 85.

Mean: The mean is affected by the outlier, so replacing 72 with 90 will increase the mean.

Median: The median is not affected by outliers, so it remains the same.

Mode: The mode remains the same as well because 85 still occurs most times.

S52. Ans.(b)

Sol. Adding a new score of 95, which is higher than the mean of the original dataset, will increase the overall mean. However, since 95 becomes the new highest score, it will not affect the median. The mode remains the same, as 85 still occurs most times.

S53. Ans.(b)

Sol. The revaluation pertains solely to fixed assets, meaning it **does not** affect the current assets or current liabilities. Therefore, the **current ratio remains unchanged** at **1.5:1**.

S54. Ans.(b)

Sol. Banks are advised to limit the maturity of bank guarantees to a maximum of 10 years to manage their Asset Liability Management (ALM) effectively. ALM is crucial for banks as it involves managing the risks that arise from mismatches between the maturities of assets and liabilities. Issuing long-duration guarantees can introduce substantial long-term obligations that might not align well with the bank's liquidity needs, interest rate risk management, and overall financial planning. By considering the impact of very long-duration guarantees on ALM, banks can avoid potential financial strains that could affect their ability to meet future obligations, maintain regulatory capital requirements, and support healthy liquidity levels.

S55. Ans.(a)

Sol. The statement that is NOT true about the importance of security possession in bank loan appraisals is A, which suggests that possession of security allows the bank to completely avoid all legal processes in the event of a default. While direct possession of security can indeed provide a bank with a more immediate form of protection and may expedite the recovery process, it does not entirely eliminate the need for legal involvement. Legal procedures may still be necessary to formalize the recovery process and resolve any disputes that arise from the default. The primary reason for preferring direct possession, such as through 'Lock and Key' advances, is to mitigate risks associated with legal system inefficiencies, not to bypass legal processes altogether.

S56. Ans.(d)

Sol. Minimize the amount of funds held in very liquid assets. An aggressive working capital strategy focuses on reducing the amount of cash and other highly liquid assets to increase potential returns, even at the risk of lower liquidity.

S57. Ans.(c)

Sol. One strategy involves conducting simulations for a **designated** period. Alternatively, another approach is to extend the run length to gather a **substantial** sample size – a feasible option given the capacity to run models on computers. A third method is to continue simulation until reaching a state of equilibrium – simulated data aligns with **historical** data. For instance, in our scenario, simulated demand conforms to its **historical** frequencies.

S58. Ans.(b)

Sol. Fixed Cost is a type of cost in production that remains constant, irrespective of the level of production. This means that whether a company is producing at zero level or at its full capacity, the Fixed Cost will not change. This characteristic makes it challenging to distribute the Fixed Cost into a cost per unit of production, as it does not vary with the quantity of goods produced. An example of Fixed Cost is depreciation, which is a charge taken for the wear and tear of assets over time, and it remains the same regardless of how much the company produces using those assets.

S59. Ans.(c)

Sol. The assessment of Fixed Assets Coverage Ratio (FACR) and Security Margin Coverage Ratio (SMCR) is crucial in the loan evaluation process as these ratios provide insights into the security available for recovery in the event of a borrower default. They help lenders understand the extent to which the borrower's fixed assets and security margins can cover the outstanding loan amount, acting as a financial cushion. By evaluating these ratios, lenders can gauge the risk associated with the loan and the likelihood of recovering the lent amount if the borrower fails to meet the repayment obligations. This analysis is a part of the broader risk management strategy to ensure that the bank or financial institution has adequate safeguards against potential losses from defaults.

S60. Ans.(b)

Sol. The recommended practice for participating lenders in the appraisal of loan proposals is to develop and implement procedures that ensure these appraisals are completed in a timely, efficient manner. This approach includes making decisions on whether to extend financing or not within a reasonable timeframe. The emphasis is on operational efficiency and effective time management to enhance the lending process's overall speed and responsiveness. This practice aims to benefit both the lender, by streamlining their operations, and the borrower, by reducing the waiting period for a decision on their loan application.

S61. Ans.(b)

Sol. Cluster sampling involves dividing the population into clusters or groups that are internally homogeneous but differ from each other. Then, a random sample of clusters is selected, and all individuals within the chosen clusters are included in the sample. This method is particularly useful when it's impractical or costly to sample individuals directly from the population.

S62. Ans.(c)

Sol. The RBI could reject the appointment if the detailed rationale for appointment lacks sufficient evidence of the candidate's compliance expertise. This information is crucial to ensure the candidate meets the necessary supervisory standards, and insufficient documentation may lead to concerns about the candidate's suitability for the role.

S63. Ans.(b)

Sol. The 'fit and proper' certification by the MD & CEO is critical. This document confirms that the candidate meets the supervisory requirements laid out by the RBI, making it essential for regulatory compliance and approval of the appointment.

S64. Ans.(c)

Sol. Failing to provide prior intimation to the RBI about such significant changes can result in penalties or a formal warning. This failure goes against the compliance protocols set by the RBI, and adherence to these protocols is crucial for maintaining the trust and regulatory approval of the banking operations.

S65. Ans.(a)

Sol. If there is a discrepancy between the committee's recommendations and the Board's decision, the most likely protocol is to re-convene the selection committee to reassess the candidates' rankings. This ensures that all considerations are reviewed again, maintaining the integrity of the selection process and ensuring the best candidate is chosen in alignment with both committee insights and Board perspectives.

S66. Ans.(c)

Sol. The RBI's perspective on fraud involves cases where there is a deliberate act of deception intended to benefit unfairly or unlawfully, thereby causing a financial loss to the banks. This aligns with the general legal understanding of fraud under various provisions of IPC 1860.

S67. Ans.(a)

Sol. The statement that is NOT true about the importance of analyzing financial statements and auditors' reports for renewing working capital limits is A. This analysis is not primarily conducted to calculate the business's tax liabilities or the bank's ability to report its tax deductions from interest earned. Instead, the main purpose of this analysis is to assess the business's financial health and stability, including its use or diversion of funds, profitability, and effectiveness in managing debts. These insights help the bank make informed decisions about renewing or adjusting the working capital limits, ensuring that the bank supports viable businesses while managing its risk exposure.

S68. Ans.(d)

Sol. The word "Statistics" has its origins in multiple languages: Latin ("statisticum"), Italian ("statistia"), and German ("statistik"). Each of these words refers to a group of numbers or figures representing information of human interest. These origins reflect the interdisciplinary nature of statistics, drawing from various fields and cultures to develop its principles and methodologies.

S69. Ans.(c)

Sol. Analysis of financial statements, while providing an overview of a company's financial health, does not directly involve the verification of physical inventory or detailed stock records. Therefore, it's less suited for detecting specific misstatements in inventory within a stock statement compared to direct inspection or auditing methods.

S70. Ans.(c)

Sol. Market risks refer to the potential for investors to experience losses due to factors that affect the overall performance of the financial markets. These include risks related to movements in interest rates, exchange rates, equity prices, and commodity prices. Market risk arises from the unpredictable and uncontrollable nature of market forces. It is a type of risk that cannot be eliminated through diversification alone because it impacts a wide range of assets and is tied to the economic and political events that influence market dynamics. Market risk is inherent to investing and trading in financial markets and is a critical consideration for both individual investors and institutions in managing their portfolios.

S71. Ans.(b)

Sol. The statement that is NOT true about the practice of reporting wilful defaulters to Credit Information Companies is B. The primary purpose of reporting wilful defaulters is not to facilitate legal action against them by providing data to law enforcement agencies. Instead, the main objectives are to enhance transparency within the financial system, enable banks and financial institutions to make more informed lending decisions, and improve overall credit risk management. This reporting helps in sharing critical information on a near real-time basis among financial entities about individuals or entities that have deliberately avoided repaying their debts, thus contributing to a more robust risk assessment and lending environment. Law enforcement and legal actions might be part of broader measures against wilful defaulters, but they are not the direct aim of this specific reporting practice.

S72. Ans.(c)

Sol. Statistical inference involves making predictions or generalizations about a population based on a sample. However, there is always a risk that the sample may not be representative of the entire population, leading to inaccurate conclusions.

S73. Ans.(c)

Sol. The urgency in determining the fair value and liquidation value of the Corporate Debtor mandates that the Resolution Professional acts promptly. According to the regulation, the RP must appoint two valuers who are registered with the Insolvency and Bankruptcy Board of India (IBBI) within 7 days of their appointment, ensuring that the valuation process commences swiftly to facilitate further insolvency resolution processes.



S74. Ans.(c)

Sol. Extortionate transactions are identified as those where the terms are excessively harsh or outside the boundaries of law, providing an undue benefit to one party (often the lender) over another. This type of transaction is avoidable as it typically involves exploitative credit conditions that are not in compliance with standard legal or financial norms.

S75. Ans.(d)

Sol. The stipulation for banks and financial institutions (FIs) is to report information regarding non-cooperative borrowers to the Central Repository of Information on Large Credits (CRILC) within 21 days from the close of the relevant quarter. This requirement ensures that data on non-cooperative borrowers is updated and shared in a timely manner, facilitating better risk management and oversight across the financial system. It allows for the monitoring of such borrowers and aids in the early identification of potential financial distress or default, enabling banks and FIs to take appropriate measures to mitigate risks associated with non-cooperative behavior.

S76. Ans.(b)

Sol. Random sampling ensures each member of a population has an equal likelihood of being chosen for the sample, minimizing bias. Eliminating preconceived patterns or preferences fosters representativeness. This method is crucial in statistical analysis, as it allows for generalization of findings to the broader population. Consequently, random sampling enhances the reliability and validity of research outcomes.

S77. Ans.(c)

Sol. The confidence level in statistical analysis reflects the degree of certainty or level of confidence that a population parameter (such as a mean or proportion) falls within a specific interval estimate. It is often expressed as a percentage, such as 95% or 99%. A higher confidence level indicates a higher level of certainty that the interval estimate contains the true population parameter.

S78. Ans.(b)

Sol. The Inventory Turnover Ratio is calculated by dividing Net Sales by the Average Inventory. This ratio helps measure how many times a company's inventory is sold and replaced over a period.

S79. Ans.(c)

Sol. Lok Adalats (people's courts) offer a statutory mechanism for the resolution of disputes, including those between commercial banks, financial institutions, and their clients, for dues up to Rs. 20 lakh. This is in line with the Legal Services Authority Act, 1987, which provides a legal basis for Lok Adalats and encourages an alternative, less formal, and amicable method of dispute

resolution. The Reserve Bank of India has issued guidelines recommending the use of Lok Adalats as a forum for settling such disputes, especially if convened under the civil judiciary. This approach helps reduce the burden on formal court systems and facilitates quicker resolution of disputes cost-effectively and harmoniously.

S80. Ans.(c)

Sol. Critical matters differ from routine matters in terms of the majority required for approval by the Committee of Creditors. While routine matters can pass with a simpler majority of 51% by value, critical matters need a higher threshold, specifically a 66% majority. This ensures that decisions of greater significance have a broader consensus among the creditors.

S81. Ans.(c)

Sol. Clear and concise wording in a questionnaire is crucial for ensuring respondents understand questions accurately, leading to more reliable data. Ambiguity or complexity in language can confuse participants, affecting response quality. By using straightforward language and avoiding jargon, researchers facilitate respondents' comprehension and encourage more accurate and meaningful responses, enhancing the overall effectiveness of the questionnaire as a data collection tool.

S82. Ans.(d)

Sol. For a Resolution Plan (RP) that does not entail restructuring or change in ownership to be deemed successfully implemented, the crucial condition is that the borrower must not be in default with any of the lenders as of the 180th day from the conclusion of the Review Period. This criterion serves as a benchmark to evaluate the effectiveness and success of the implemented RP, ensuring that the borrower has maintained regular payments and has not fallen into default during this specified timeframe. If the borrower manages to meet this condition, the RP is considered implemented. Any default occurring after this 180-day period is treated as a new instance of default, necessitating a fresh review and potentially triggering a new set of actions or interventions under the guidelines. This approach underscores the importance of sustained compliance and financial stability post-implementation of the resolution strategy.

S83. Ans.(c)

Sol. The Central Limit Theorem (CLT) states that as the sample size increases, the distribution of sample means approaches a normal distribution, regardless of the shape of the population distribution. This is a fundamental concept in statistics, as it allows for the use of normal distribution assumptions in hypothesis testing and estimation, even when the population distribution is non-normal.

S84. Ans.(320)

Sol. Tangible Networth = Networth - intangible assets
Capital + reserve - (preliminary expenses + P&L debit balance)
= 200 + 230 - (80 + 30) = 430 - 110 = 320

S85. Ans.(d)

Sol. Current Ratio=Current Assets / Current Liabilities

$$CA = (20+20+400+300)=740$$

$$CL=(40+100+400)=540$$

$$= 740/540 = 1.37:1$$

S86. Ans.(d)

Sol. Total outside liabilities/Tangible networkth

$$=720/320 =2.25:1$$

S87. Ans.(a)

Sol. Stock turnover ratio= Sales/stock

$$=2000/400 =5 \text{ times}$$

S88. Ans.(b)

Sol. Debt Collection period = No. days or months or Weeks in a year/Debt Turnover Ratio.

12 months in year

$$=12/10 = 1.2$$

Debtors Turnover Ratio = Net Credit Sales / Average Debtors.

$$=3000/300 =10 \text{ times}$$

$$= 1.2 \text{ months and } 10 \text{ times}$$

S89. Ans.(b)

Sol. The working capital finance is calculated as 20% of the projected annual turnover. Given that 20% of the projected turnover equals Rs. 60 lakh, the total projected turnover would be Rs. 60 lakh / 20% = Rs. 3 crore.

S90. Ans.(d)

Sol. Governance, Risk, Compliance. A program encompassing the above three helps identify and manage situations that can impact a company's ability to achieve its objectives.

S91. Ans.(a)

Sol.

$$\text{Mean} = 400/8$$

$$= 50$$

$$MD (\text{Mean}) = (\sum_{i=1}^n |x_i - \bar{x}|)/n$$

$$= 166/8$$

$$= 20.75$$

$$\text{Coefficient of MD} = MD / \text{Mean}$$

$$= 20.75/50$$

$$= 0.415$$

S92. Ans.(7.55)

Sol.

$$\text{Mode} = l + \frac{(f_1 - f_0) / (2f_1 - f_0 - f_2)h}{1}$$

$$24.5 = 20 + \frac{(10 - 8) / (20 - 8 - x)10}{1}$$

$$\Rightarrow 24.5 = 20 + \frac{(2 / (12 - x))10}{1}$$

$$\Rightarrow 4.5 / 1 = 20 / (12 - x)$$

$$\Rightarrow 20 = 4.5(12 - x)$$

$$\Rightarrow 20 / 4.5 = 12 - x$$

$$\Rightarrow 40 / 9 = 12 - x$$

$$\Rightarrow x = 12 - 40 / 9$$

$$\Rightarrow x = 108 - 40 / 9$$

$$\Rightarrow x = 68 / 9$$

$$\Rightarrow x = 7.55$$

S93. Ans.(a)

Sol. The correlation coefficient (r) ranges from -1 to $+1$ and only indicates the strength and direction of a linear relationship. A value of -1 indicates a perfect negative correlation, $+1$ indicates a perfect positive correlation, and 0 indicates no linear correlation. It cannot be used to infer or represent curvilinear relationships.

A heterogeneous sample with diverse data points can lead to chance correlations that may appear to be significant, resulting in a higher correlation coefficient. However, this correlation is not meaningful and may not represent a true causal relationship between the variables.

The correlation coefficient only quantifies the strength and direction of the linear relationship between two variables. It does not imply causation. A high correlation coefficient does not necessarily imply that changes in one variable cause changes in the other. Correlation is not sufficient to determine causation; additional causal analysis and experimentation are required to establish cause-effect relationships.

S94. Ans.(c)

Sol.

For a confidence level 90% , $\alpha = 1 - 0.90 = 0.10$, so $z_{\alpha/2} = z_{0.05}$

$$z_{0.05} = 1.645$$

$$\text{Since } n = 120, \bar{x} = 2.71, \text{ and } s = 0.51$$

$$= 2.71 \pm 1.645(0.51\sqrt{120})$$

$$= 2.71 \pm 0.0766$$

One may be 90% confident that the true average GPA of all students at the university is contained in the interval $(2.71 - 0.08, 2.71 + 0.08)$

$$= (2.63, 2.79)$$

S95. Ans.(39.25)

Sol.

X	x= (X-13)	x ²	Y	y= (Y-41)	y ²	xy
10	-3	9	40	-1	1	3
12	-1	1	38	-3	9	3
13	0	0	43	2	4	0
12	-1	1	45	4	16	-4
16	3	9	37	-4	16	-12
15	2	4	43	2	4	4
$\Sigma X=78$	$\Sigma x=0$	$\Sigma x^2= 24$	$\Sigma Y= 246$	$\Sigma y=0$	$\Sigma y^2= 50$	$\Sigma xy= -6$

Regression Equation of Y on X

$$Y - \bar{Y} = r \frac{\sigma_y}{\sigma_x} (X - \bar{X})$$

$$b_{yx} = r \frac{\sigma_y}{\sigma_x} = \frac{\Sigma xy}{\Sigma x^2} = -\frac{6}{24} = -0.25$$

$$Y - 41 = -0.25 (X - 13)$$

$$Y - 41 = -0.25 X + 3.25$$

$$Y = -0.25 X + 44.25$$

When X is 20, Y will be

$$= -0.25(20) + 44.25$$

$$= -5 + 44.25$$

$$= 39.25$$

S96. Ans.(d)

Sol. Statement 1: This statement is incorrect. Irregular Variations, also known as random variations or noise, are typically difficult to isolate mathematically. They arise from unpredictable and unpatterned factors, making them challenging to model or predict mathematically.

Statement 2: This statement is incorrect. Correcting or addressing irregular variations often requires specialized techniques. These variations can obscure underlying patterns and trends in data, so efforts may be needed to filter out or account for the irregular components to reveal meaningful insights.

S97. Ans.(c)

Sol. The probability of drawing a spade $P(A) = 13/52$

The probability of drawing a king $P(B) = 4/52$

Because one of the kings can belong to a spade, therefore the events are not mutually exclusive.

The probability of drawing a king of spade $P(AB) = 1/52$

So, the probability of drawing a spade or king is:

$$P(A \text{ or } B \text{ or Both}) = P(A) + P(B) - P(AB)$$

$$= 13/52 + 4/52 - 1/52$$

$$= 16/52$$

$$= 4/13$$

S98. Ans.(c)

Sol. In linear programming, the **slack** variable represents the difference between the left-hand side and right-hand side of a constraint. A slack variable can be positive, indicating surplus or excess capacity, or zero, indicating that the constraint is binding and the resources are fully utilized. When the value of the **slack** variable is zero, it indicates that the constraint is satisfied without any excess capacity, and the associated resource is considered "scarce" because it is fully consumed.

S99. Ans.(d)

Sol. Skewness is the degree of distortion from the symmetrical bell curve or the normal distribution. It measures the lack of symmetry in data distribution. There are two types of skewness– positive and negative. If the bulk of observations is on the left side of the mean and the positive side is longer, it is called the positive skewness of the distribution. In this case, the mean and median are greater than the mode. If the bulk of observations is on the right side of the mean and the negative side is longer, it is called the negative skewness of the distribution. In this case, the mean and median are less than the mode.

S100. Ans.(c)

Sol. Robert Owen viewed the workers as crucial elements of the production process, similar to machines in terms of their importance. He strongly believed that a manager's best investment was in his workers by providing better conditions for them. Owen's approach was based on the idea that improved worker welfare leads to increased productivity, demonstrating his human-centered management philosophy. This contrasts with other historical figures like Charles Babbage, who might have placed more emphasis on mechanical and technological advancements in the workplace.

