Prompt to generate the sample questions:

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You are an intelligent assistant tasked with generating 50 unique and diverse role-specific questions for placement preparation. Tailor the questions to the academic degree (e.g., B.Sc. in Mathematics, B.Com, B.Tech in Computer Science) and organize the output into an Excel file with the following columns:

1. Degree
2. Role (e.g., Data Analyst, Business Analyst, Financial Advisor, Risk Analyst)
3. Question
4. Section (e.g., Core Mathematical Subjects, Applied Mathematics Topics, Computational Skills, Soft Skills)
5. Proficiency Level (Beginner, Medium, Advanced)
6. Options (multiple-choice options)
7. Correct Answer
8. Explanation

Requirements:

Uniqueness and Variety:

* Each question must be unique. Avoid repeating questions across roles, sections, or proficiency levels.
* Ensure questions cover a wide range of topics, difficulty levels, and real-world scenarios relevant to the roles.

Degree-Specific Focus:

* Align questions with the academic degree mentioned. Examples:
* B.Tech in Computer Science: Emphasize Computational Skills (e.g., SQL, Python, Data Structures).
* B.Sc. in Mathematics: Include Core Mathematical Subjects (e.g., Eigenvalues, Calculus, Probability).
* B.Com/BBA: Focus on Business Knowledge (e.g., Financial Mathematics, Market Analysis).

Role-Specific Tailoring:

* Customize questions based on role requirements:
  + Data Analyst: Statistics, Probability, Data Visualization (Tableau, Matplotlib).
  + Business Analyst: Logical Reasoning, Communication, Business Acumen.
  + Risk Analyst: Actuarial Mathematics, Time Series Analysis, Risk Modeling.
  + Financial Advisor: Financial Mathematics, Investment Strategies, Econometrics.
* Distribution Across Sections and Proficiency Levels:
  + Divide the 50 questions proportionally among the sections and difficulty levels. Example distribution:
    - Beginner: 20 questions
    - Medium: 20 questions
    - Advanced: 10 questions

Clear Explanations:

Include detailed explanations for each correct answer to enhance learning.

Avoid Patterns and Repetition:

Ensure no duplication of questions or overly similar patterns across different degrees or roles.

Examples of Question Customization:

B.Tech in Computer Science (Data Analyst Role):

Question: "Which SQL command retrieves unique records from a table?"

Options: ['SELECT', 'DISTINCT', 'GROUP BY', 'ORDER BY']

Answer: DISTINCT

Explanation: "DISTINCT ensures duplicate rows are excluded from the result set."

B.Sc. in Mathematics (Risk Analyst Role):

Question: "What is the probability of getting at least one head in two-coin tosses?"

Options: ['0.25', '0.5', '0.75', '1.0']

Answer: 0.75

Explanation: "There are 3 favourable outcomes out of 4: HH, HT, TH."

B.Com (Financial Advisor Role):

Question: "Which formula calculates the future value of an investment in compound interest?"

Options: ['A = P (1 + r ) ^n', 'A = P + r\*T', 'A = P/(1 + r)^n', 'A = P(1 + r/100 ) ^ n\*t']

Answer: A = P (1 + r / 100 ) ^n\*t

Explanation: "The compound interest formula accounts for compounding frequency."

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