



Jambilla

Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University, Estd.u/s 3 of UGC Act 1956, Category A by MHRD [now MoE]
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC,
Coimbatore – 641 043, Tamil Nadu India

Department of Commerce

Continuous Internal Assessment Test II – October 2024

I – SEMESTER

Class : I – UG
Major : B.Com (PA)

Time : 2 Hours
Max. Marks : 60

23BCPC03 - Business Mathematics and Logical Reasoning and Statistics

- CO1** : Apply the Logarithm Techniques and its Mathematical Equation for Business
CO2 : Prepare the Permutation and Combination Sequences Series for Business Situations
CO3 : Acquire the Logical Reasoning and Syllogism Skill Sets
CO4 : Apply Statistical Techniques for Data Analysis and Interpretations
CO5 : Application of Correlation and Regression Techniques in Business Decision Making

Part – A

6 x 1 = 6

Choose the correct answer

1. There are five different houses, A to E, in a row. A is to the right of B and E is to the left of C and right of A, B is to the right of D. Which of the houses is in the middle? **CO1 K2**
(a) A (b) B (c) C (d) D
2. A is B's brother. C is A's mother. D is C's father, E is B's son. How is D related to A? **CO2 K3**
(a) Son (b) Grandson (c) Grandfather (d) Great Grandfather
3. Statistics is defined in terms of numerical data in the **CO3 K4**
(a) Singular sense (b) Plural sense (c) Either (a) or (b) (d) Both (a) and (b)
4. Horizontal bar diagram is used for **CO3 K2**
(a) Qualitative Data (b) Data varying over time (c) Data varying over space (d) (a) or (c)
5. In Histogram if the classes are of unequal width then the heights of the rectangles must be proportional to the frequency densities **CO4 K2**
(a) True (b) False (c) Both (d) None
6. Mean, Median and Mode are equal for the **CO3 K2**
(a) Binomial Distribution (b) Normal Distributions (c) Both (d) None

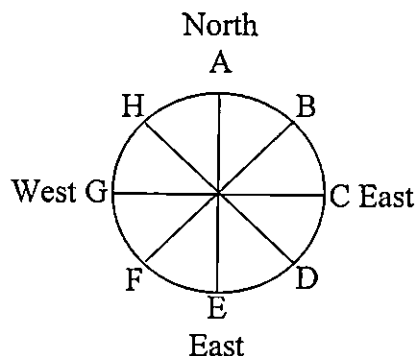
Part – B

3 x 6 = 18

Answer should not exceed 400 words

7. (a) Eight Persons A, B, C, D, E, F, G and H are sitting around the circle as given in the figure. They are facing the direction opposite to centre. If they move upto three places anti-clockwise, then.

- (a) B will face west
- (b) E will face East
- (c) H will face North-West
- (d) A will face South



CO1 K2

OR

- (b) Define Syllogism and explain the components and classifications of propositions. **CO2 K2**

8. (a) **Sylogism the following Statements:**

CO3 K2

- I. All Lotus are flowers
- II. No Lily is a Lotus.

Conclusions

- I. No Lily is Flowers
- II. Some Lilies are flowers
- (a) Only I follows
- (b) Only II follows
- (c) Either I or II follows
- (d) Neither I nor II follows

OR

(b) The profits in lakhs of Rupees of an industrial house for 2018, 2019, 2020, 2021, 2022, 2023 and 2024 are 5, 8, 9, 6, 12, 15 and 24 respectively. Represent these data using a suitable diagram.

CO4 K2

9. (a) Following are the weights in Kgs. of 36 B.Com students of St. Joseph Institute

CO3 K2

70	73	49	61	61	47	57	50	59
59	68	45	55	65	68	56	68	55
70	70	57	44	69	73	64	49	63
65	70	65	62	64	73	67	60	50

Construct a frequency distribution of weights, taking class length as 5.

OR

(b) Following are the daily wages in Rupees of Sample 9 workers: 58, 62, and 48, 53, 70, 52, 60, 84, 75. Compute the mean Wage.

CO4 K2

Part – C

3 x 12 = 36

Answer the following
Answer should not exceed 800 words

10. (a) Given that the mean height of a group of students is 67.45 inches. Find the missing Frequencies for the following incomplete distribution of height of 100 students.

CO3 K2

Heights in inches	60 – 62	63 – 65	66 – 68	69 – 71	71 – 74
No. of Students	5	18	-	-	8

OR

(b) Explain the different measures of Central Tendency.

CO3 K3

11. (a) Compute AM, GM and HM for the numbers 6, 8, 12, 36

CO4 K2

OR

(b) Find the SD of the following distribution:

CO3 K2

Weights (Kgs.)	50 – 52	52 – 54	54 – 56	56 – 58	58 – 60
No. of Students	17	35	28	15	5

12. (a) A lot of 10 Electronic Components is known to include 3 defective parts. If a sample of 4 a component is selected at random from the lot, what is the probability that this sample does not contain more than one defectives?

CO3 K3

OR

(b) Explain the Discrete and continuous Probability Distributions with illustration.

CO4 K2

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