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6 SEM TDC DSE BOT (CBCS) 4 (H)

2025

(May)

BOTANY

(Discipline Specific Elective)

(For Honours)

Paper : DSE-4

(Biostatics)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. (a) Choose the correct answer of the following : 1×3=3

(i) The data collected from the place of origin is called

(Secondary data / Primary data /
Tertiary data / Both primary and
secondary data)

- (ii) The arithmetic mean of 10 items is 4 and the arithmetic mean of 5 items is 10. The combined arithmetic mean is (approx)

$$(4 / 3 / 6 / 77)$$

- (iii) The hypothesis which is tested for the purpose of rejection under the assumption that it is true is called

(Null hypothesis / Alternative hypothesis / Statistical hypothesis / Composite hypothesis)

- (b) Fill in the blanks :

$$1 \times 2 = 2$$

- (i) _____ is the square root of variance.

- (ii) The range of correlation coefficient is _____ to _____.

2. Write short notes on any *three* of the following :

$$4 \times 3 = 12$$

- (a) Statistical methods
- (b) Tabulation of data
- (c) Mean deviation
- (d) Chi square test
- (e) Regression equation

3. What do you mean by data? Write the differences between Primary and Secondary data. Describe the various methods of collecting primary data. $2+4+6=12$

Or

Define correlation. What are the various types of correlation? How regression is calculated? Write the differences between correlation and regression. $2+3+4+3=12$

4. What do you mean by hypothesis in statistical terminology? How is hypothesis tested? Write an explanatory note on *t*-test? $2+4+6=12$

Or

Define Biostatistics. Write about its application in biological sciences. Write briefly on measurement of variables. $2+4+6=12$

5. What do you mean by standard deviation? Calculate mean, median and mode of data given below : $3+3+3+3=12$

Class interval : 10-25 25-40 40-55 55-70 70-85 85-100

Frequency : 2 3 7 6 6 6

(4)

Or

Write the merits and demerits of geometric mean. The following data relate to the pod length and the number of seeds per pod is given below. Calculate correlation coefficient : $6+6=12$

Pod's length : 4.5 4.0 5.2 4.6 5.2 5.2 4.3 4.0 4.5 5.5

No of seeds/
pod : 5 5 6 6 6 7 4 4 5 6

★ ★ ★