

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2019
(Third Semester)**

Branch - **BOTANY**

BIOLOGICAL DATA ANALYSIS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks!)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10x1 = 10)

- 1 Quantitative variables that can have any numerical values are called
 - (i) Quantitative variables (ii) Discrete variables
 - (iii) Absolute variables (iv) Continuous variables
- 2 In biostatistics , group of individuals taken for study is called as
 - (i) Block (ii) Population
 - (iii) Group (iv) Flock
- 3 If a population contains infinite numbers of members, it is called
 - (i) Hypothetical population (ii) Infinite population
 - (iii) Finite population (iv) Nonrandom population
- 4 In Cluster sampling
 - (i) Probability is proportional to size
 - (ii) The secondary units are individuals members of the study population
 - (iii) One random sample is taken from each stratum
 - (iv) The sampling procedures are biased and directional
- 5 Mode is
 - (i) Most frequent value (ii) Least frequent value
 - (iii) Middle most value (iv) Central value
- 6 Median is
 - (i) Central value (ii) Central tendency
 - (iii) Positional average (iv) Least frequent value
- 7 Correlation coefficient is a number between
 - (i) +1 and +2 (ii) 0 and +1
 - (iii) -1 and 0 (iv) -1 and +1
- 8 The ratio between experimental and observed results is represented by
 - (i) Chi-square (ii) Theta value
 - (iii) Variance ratio (iv) F- test
- 9 The variable which influences the values is called
 - (i) Dependent variable (ii) Independent variable
 - (iii) Simple regression (iv) Multiple regression
- 10 Vital statistics are usually expressed as
 - (i) Ratio (ii) Percentage
 - (iii) Unit area (iv) Square unit

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Describe stratified random sampling.
OR
b Classify the types of samples used in biostatistics.
- 12 a Explain graphic representation of data.
OR
b Bring out the rules for tabulation.
- 13 a Explain median and its merits.
OR
b State the merits and demerits of mode.
- 14 a Describe student T-test.
OR
b Explain Chi-square test.
- 15 a Explain regression analysis and its significance.
OR
b Summarise the uses of vital statistics.

SECTION - C (30 Marks)

Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Highlight the role of biostatistics in modern research.
- 17 Classify the various methods of collecting primary data.
- 18 Discuss arithmetic mean with its formula and point out its merits and demerits.
- 19 Categorize the types and methods of correlation.
- 20 Discuss the measures of vital statistics.

Z-Z-Z

END