

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) _____ : V
BSc DEGREE EXAMINATION MAY 2017
(Sixth Semester) . -

Branch - BIOTECHNOLOGY

BIostatISTICS

Time : Three Hours

Maximum: 75 Marks , .

SECTION-A 120 Marks

Answer ALL questions

- ALL questions carry EQUAL marks (10x2 = 20)

- 1 What is discontinuous variable? • ' .
- 2 What is Frequency distribution? • "
- 3 What is mean? ..
- 4 What is standard deviation? How can be it is calculated? \ ' v.,
- 5 Define - Probability. •
- 6 What is non - Random sampling? • <
7. What is null- hypothesis?
- 8 What are the applications of student's t-test? • v
- 9 Write any three software package, used of statistics.
- 10 What are the applications of computer in Biostatistics?

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25) •

- 11 a • Describe the types of data. -

OR ' , •'

- b Draw a bar diagram for the following Data .

Country.	Birth rate	Death r
India .	30	. 20
Germany	15	- * 10
USA	20	15
Australia	40.	30

- 12 a. Calculate the mean value for the following data using direct method

Roll no .	1	2	3	4	5	6.	7	.8	9	10
Marks	33	35	44	34	41	45	39	46	36'	47'

OR

- b Calculate the standard deviation for the following Data using Discrete series Method

Size of. item (x)	6	7	8	9	10	11	12
Frequency	3	6	9	13	8	5	4

- 13 a From a pack of 52 cards. 2 cards are drawn at random. .Find the probability that one is king and the other is Queen.

• ' ; OR

- b Write any 5 characteristics of a normal distribution.

- 14 a Define sampling. Explain its types. . - '

OR

- b A random sample of size 10 had a mean 14.3 and standard deviation 1.44. Test the significance that the mean population μ is 15. Calculate the T - value

- 15 a Write short notes on SPSS.
OR
- b Explain in detail about the Subset packages.

SECTION - C (30 Marks)

* Answer any THREE Questions :

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Draw frequency polygon for the following Data.
- | Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
|-----------------|------|-------|-------|-------|-------|-------|-------|
| No. of students | 5 | 7 | 10 | 15 | 13 | 6 | 2 |
- 17 Calculate the correlation Co-efficient for the following Data.;
- | x | 12 | 18 | 16 | 15 | 12 | 10 | 20 | 7 |
|---|----|----|----|----|----|----|----|----|
| y | 6 | 10 | 9 | 8 | 9 | 8 | 12 | 10 |
- 18 Calculate the Poisson Distribution for the following data
- | x | 0 | 1 | 2 | 3 |
|---|-----|----|----|---|
| y | 200 | 75 | 20 | 5 |
- 19 A coin is tossed 100 times of which head comes 60 times & tail 40 times. Calculate the chi-square value and find out its significance •
- 20 Calculate the regression value for the following variables.* V

Z-Z-Z

- END -