

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2018
(First Semester)

Branch - VISUAL COMMUNICATION(ELECTRONIC MEDIA)

STATISTICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 State the types of Classification.
2 What are the limitations of Statistics?
3 What is meant by Median?
4 Define Quartile Deviation.
5 Give the formula for probable error in correlation.
6 What are the regression coefficients?
7 Give the concept of test of significance.
8 Define type II error.
9 What do you understand by Chi-square test?
10 What does the ANOVA test tell you?

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Explain the methods of collecting data.

OR

- b Describe the features for constructing a Ogive curve.

- 12 a Calculate Quartile deviation from the following data.

Value of the items	14	15	16	27	28	29	40	42
Frequency	3	4	6	9	8	4	3	2

OR

- b Find arithmetic mean and mode from the data given below.

Profit (Rs.'000)	10	15	20	25	30
No. of companies	5	10	15	6	4

- 13 a From the following determine the correlation coefficient.

Y	10.4	16.5	22.9	26.6	33.8	42.8
	11.8	12.5	15.7	19.2	21.9	23.3

OR

- b In the table below, the X column shows score on the aptitude test. Similarly, the Y column shows statistics grades. Determine the regression equation Y on X.

Student	X	Y
1	95	85
2	85	95
3	80	70
4	70	65
5	60	70

- 14 a Sample of two types of electric bulbs were tested for length of life and the following data were obtained.

	Type I	Type II
Sample No.	8	7
Sample Means	1234hrs	1036hrs
Sample S.D	36hrs	40hrs

14 b In a sample of 1000 people in Maharashtra, 540 are rice eaters and the rest are wheat eaters. Can we assume that both rice and wheat are equally popular in this state at 1% level of significance.

15 a, A company keeps records of accidents. During a recent safety review, a random sample of 60 accidents was selected and classified by the day of the week on which they occurred.

Day	Mon.	Tue.	Wed.	Thu.	Fri.
No. of accidents	8	12	9	14	17

Test whether there is any evidence that accidents are more likely on some days than others.

OR

b Explain analysis of variance for one way classification.

SECTION - C (30 Marks)

Answer any THREE Questions

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

16 Explain functions and limitations of Statistics.

17 s The following are the runs scored by two batsman A and B in 10 innings

A	101	27	0	36	82	45	7	13	65	14
B	97	12	40	96	13	8	85	8	56	15

Who is the more consistent batsman?

18 Calculate the two regression equations from the data given below:

Price (Rs.)	10	12	13	12	16	15
Amount Demanded	40	38	43	45	37	43

19 The values of a variate in two samples are given below.

Sample 1	5	6	8	1	12	4	3	9	6	10
Sample 2	2	3	6	8	1	10	2	8		

20 In a study carried to determine whether there is any relationship between

Blood Type	Pepticular	Gastric Cancer	Normal
A	.670	420	1010
B	130	80	490

orm a suitable hypothesis.

Z-Z-Z

END