

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

B.Voc DEGREE EXAMINATION MAY 2018
(Third Semester)

Branch - FOOD PROCESSING TECHNOLOGY

DATA ANALYTICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

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

- 1 What is primary data?
- 2 Define statistics.
- 3 List the merits of median.
- 4 Define mean deviation.
- 5 What are the advantages of Spearman's rank correlation?
- 6 What is meant by regression?
- 7 Write any two properties of t-distribution.
- 8 Define chi-square test.
- 9 Define ANOVA.
- 10 List the uses of t-test.

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Present the following information in a suitable tabular form.

In 2006 the number of workers in the union was 3,450 of which 3,200 were men. The number of non-union workers was 760 of which 330 were women.

In 2007 out of a total of 4,000 workers in a factory, 3,300 were members of a trade union. The number of women workers employed was 500 out of which 400 did not belong to any union.

OR

- b Differentiate between diagrammatic and graphic representation.

- 12 a Calculate the arithmetic mean from the following data.

Age (years):	18-22	23-27	28-32	33-37	38-42
No. of employees :	10	15	22	36	20

OR

- b Enumerate the merits and demerits of standard deviation.

- 13 a Describe the different types of correlation.

" OR

- b Estimate the values of x corresponding to y = 200 from the following data.

X:	200	248	297	338	463	.493
Y:	137	147	184	196	276	260

Cont...

14 a Write the applications of t-test.

OR

b Two group consisting of 400 and 500 persons have mean height 68.4 inches and 66.1 inches and variance 6.4 and 6.0 respectively. Examine whether the different in means in significant.

15 a A certain drug was administered to 400 people out of a total of 700 included in the sample to test its efficacy against malaria. The results are given below.

	Malaria	No Malaria	Total
Drug	100	300	400
No Drug	280	20	300
Total	380	320	700

On the basis of these data, can it be concluded that the drug is effective in preventing malaria?

(Given for $V = 1$, $x^2_{0.05} = 3.84$).

OR

b Explain two-way ANOVA.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

16 From the following table, find the median and the mode.

Income (Rs.):	50-53	53-56	56-59	59-62	62-65	65-68	68-71	71-74	74-77
No. of persons:	3	8	14	32	36	28	16	30	5

17 Discuss the various methods of studying regression.

18 An IQ test was administered to 5 persons before and after they were trained the results are given below

Candidates	1	2	3	4	5
IQ Before training	120	112	115	130	125
IQ after training	130	113	122	120	123

Test whether there is any change in IQ after the training programme.

19 Write the uses of chi-square test.

20 Explain the parts of a table with an example.

Z-Z-Z

END