

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2023
(Fourth Semester)

Branch – SOCIOLOGY

SOCIAL STATISTICS – II WITH COMPUTER APPLICATIONS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 If an attribute has two classes it is called
(i) trichotomy (ii) dichotomy
(iii) simple classification (iv) manifold classification
- 2 A coin is tossed 6 times. The probability of getting exactly 2 heads is
(i) $1/3$ (ii) $1/2$
(iii) $15/64$ (iv) $5/24$
- 3 If gross reproduction rate is more than 1, it indicates population would
(i) increase (ii) decrease
(iii) neither increase nor decreased (iv) constant
- 4 Increase in the number of patients in the hospital due to heat stroke is
(i) Secular trend (ii) Seasonal variation
(iii) Irregular variation (iv) Cyclical variation
- 5 How do all formulas in MS excel begin?
(i) = (ii) () (iii) { } (iv) FORMULA

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. What is meant by association of two attributes?
OR
b. Explain the terms Association and Dissociation between two attributes.
- 7 a. Define Binomial distribution.
OR
b. Define Poisson distribution.
- 8 a. What is vital statistics?
OR
b. Explain the methods of obtaining vital statistics.
- 9 a. What is mean by time series analysis?
OR
b. Discuss the importance of time series analysis in business.
- 10 a. Explain in detail about MS Excel.
OR
b. What do you understand by Excel functions?

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Explain in detail about coefficient of contingency for more than two classes.

OR

- b Out of 3000 unskilled workers of a factory, 2000 come from rural areas and out of 1200 skilled workers, 300 come from rural areas. Determine the association between skill and residence by the method of proportions.

- 12 a Fit a Poisson distribution for the given data.

x	0	1	2	3	4
f	21	18	7	3	1

OR

- b Fit a binomial distribution for the following data.

X	0	1	2	3	4	5	6	7	8	9	10
f	6	20	28	12	8	6	0	0	0	0	0

- 13 a Describe the various measures of fertility rate and state their limitations.

OR

- b Explain the uses and assumptions of life table.

- 14 a Fit a straight line trend by the method of least squares to the following data.

Year	2001	2002	2003	2004	2005	2006	2007	2008
Sales	38	40	65	72	69	67	95	104

OR

- b What is secular trend? Explain any one method of measuring the trend of a time series.

- 15 a Write the procedure to fit the straight line trends in MS Excel.

OR

- b Write down the procedure to fit Poisson distribution in MS Excel.

Z-Z-Z

END