

**Avinashilingam Institute for Home Science and Higher Education for Women  
Coimbatore – 641 043  
Bachelor's Degree Examination – November 2017**

**V Semester**

**Class : III UG  
Major : Psychology**

**Time : 3 Hours  
Max. Marks : 100**

**15BPSC15 Statistics in Psychology**

**Part – A**

**10 x 1 = 10**

**Choose the Correct Answer**

1. Series which exhibit real gaps are called -----
  - a. discrete
  - b. continuous
  - c. frequency
  - d. subdivisions
2. The gap between the highest and the lowest scores is
  - a. Alpha
  - b. Data
  - c. Range
  - d. variance
3. The point where x and y intersect is called as
  - a. coordinate
  - b. origin
  - c. abscissa
  - d. ordinate.
4. Polygon means
  - a. frequency
  - b. score
  - c. height
  - d. many angled figure
5. The 'average' is the popular term for
  - a. mean
  - b. median
  - c. mode
  - d. range
6.  $\frac{3(\text{mean} - \text{median})}{\sigma}$  is an index of
  - a. Kurtosis
  - b. Correlation
  - c. Variance
  - d. Skewness
7. Which of the following is a measure of relationship?
  - a. correlation
  - b. standard deviation
  - c. mean deviation
  - d. critical ratio
8. If both the data sets move in the same direction, it is
  - a. zero order correlation
  - b. positive correlation
  - c. negative correlation
  - d. zero order association
9. Which of the following are most often used levels of significance?
  - a. .01 and .02
  - b. .01 and .05
  - c. .01 and .10
  - d. .05 and .10
10. Which of the following is a more exact estimate if the  $\sigma_d$  is used
  - a. F
  - b. z
  - c. t
  - d. r

Answer the following  
Answer should not exceed 400 words or two pages

- 11.a. What are the functions of statistics?  
(Or)
- 11.b. List out the limitations of statistics?
- 12.a. Explain positive and negative skewness.  
(Or)
- 12.b. Briefly mention the kinds of graphs.
- 13.a. Calculate mean for the following scores.

Scores	11 - 13	13 - 15	15 - 17	17 - 19
f	235	232	275	158

(Or)

- 13.b. How to calculate mode?
- 14.a. Compute rank co – efficient of correlation

Individual	A	B	C	D	E	F	G	H
Rank in I series	5	3	1	6	2	4	8	7
Rank in II Series	3	4	1	8	2	6	7	5

(Or)

- 14.b. Why rank correlation is calculated? Explain.
- 15.a. Explain the hypothesis of chance.  
(Or)
- 15.b. Explain the significance of the difference between the means:

Means	$\sigma$	N	dif
40.39	8.69	31	30
35.81	8.33	42	41

t value at .05 level is 2.00 df 71 .01 level is 2.65, df. 71)

## Part – C

5 x 12 = 60

Answer the following  
Answer should not exceed 800 words or four pages

- 16.a. Discuss the importance of statistics.  
(Or)
- 16.b. Elaborate the rules of tabulation.
- 17.a. Write and explain the rules for constructing a graph.  
(Or)
- 17.b. Describe the meaning and types of kurtosis.

18.a. Find the co-efficient of Quartile deviation for the following data.

scores	4 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34
f	66	72	86	53	49	30

(Or)

18.b. What are the uses of measures of variability? Examine.

19.a. Illustrate the meaning and types of scatter diagram.

(Or)

19.b. Compute product - moment correlation of the following.

x	12	9	8	10	11	13	9
y	14	8	6	9	11	12	3

20.a. By using 2 x 2 fold contingency table calculate  $\chi^2$  value

	Bright	Dull
Boys	17	23
Girls	28	22

( table value  $\chi^2 = 1.62$ ,  $df = 1$ )

(Or)

20.b. Describe the levels of significance.

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