Seat No:_____ **Enrollment No:_____**

PARUL UNIVERSITY

FACULTY OF ARTS

B.Arts Winter 2019 –20 Examination

Semester: 5 **Date: 21/11/2019**
Subject Code: 15105302 **Time: 2.00 pm to 4.30 pm**
Subject Name: Statistics in Behavioral Sciences **Total Marks: 60**

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as directed. **(08)**

A. Multiple choice type questions. (Each of 0.5 mark)

1. Understanding statistics is crucial to being able to
(a) read psychology research articles
(c) doing research yourself
(b) Both a&c
(d) None of the above

2. ____&____are two main branches of statistical methods
(a)Descriptive, inferential
(c)Quantitative, Qualitative
(b)Research, analysis
(d)All of the above

3. Procedures for summarizing a group of scores or otherwise making them more understandable.
(a) Inferential statistics
(c) Qualitative
(b)Descriptive Statistic
(d) Quantitative

4. ___has characteristic that can have different values.
(a)Variable
(c)Integer
(b)Score
(d)None of the above

5. Numeric variable can also be called_____
(a) Qualitative
(c) Quantitative variable
(b) Descriptive Statistic
(d) None of the above

6. numeric variable in which the values are ranks, such as class standing or place finished in a race.
(a)Ratio Scale
(c)Numeric Variable
(b)Nominal Variable
(d)Rank order variable

7. A frequency table that uses intervals is called a_____
(a) grouped frequency table
(c) cumulative frequencies
(b) percentile
(d)All of the above

8. _____ variable in which the numbers stand for approximately equal amounts of what is being measured.
(a) Equal Interval Variable
(c)Rank order variable
(b) Nominal Variable
(d) Ratio Scale

9. One kind of graph of the information in a frequency table is a kind of bar chart called a_____
(a) Histogram
(c)Pie chart
(b)Plot
(d)All of the above

10. _____are chosen because an experimenter thinks they will control behavior
(a)Dependent Variable
(c)Inductive reasoning
(b)Independent variable
(d)Deductive reasoning

11. Branches of statistics includes
(a) applied statistic
(c) mathematical statistics
(b) industry statistic
(d) both a and c

12. Procedures of descriptive statistics and control charts which are used to improve process are classified as

(a) statistical tools (c) parallel tools

(b) behavioural tools (d) serial tools

13. Which are the types of measures of Variability

(a) Standard Deviation (c) Range

(b) Both a&c (d) None of the above

14.____sampling is one that has been hand picked by the investigator to fully ensure that specific elements are included.

(a) Accidental sampling (c) Purposive sampling

(b) quota sampling (d) None of the above

15._____samples are known as incidental samples

(a) Accidental sampling (c) Purposive sampling

(b) quota sampling (d) None of the above

16._____sampling technique is applied in order to obtain representative sample.

(a) Stratified Random Sampling (c) Simple Random Sampling

(b) quota sampling (d) None of the above

B. Do as Directed (Each of 01 mark) **(07)**

1. Define Variance
2. What is frequency table?
3. Give two types of Probability Sampling.
4. What are levels of measurement?
5. 90, 95, 95, 94, 90, 85, 84, 83, 85, 81, 92, 93, 82, 78, 79, 81, 80, 82, 85, 76, 85. Find the mode of this data.
6. What are the levels of measurement?
7. Define Non-Probability sampling.

Q.2 Answer the following.

A. Difference between frequency polygon and histogram **(04)**

B. Explain levels of measurement. **(04)**

C. Difference between Continuous Score and Discrete Score **(04)**

OR

C. Explain stratified random sampling. **(04)**

Q.3 Answer the following.

A. Compare Mean, Median and Mode in detail **(05)**

B. Students in a class were given a test of quantatitative reasoning. There scores are given below. Tabulate the frequency distribution table. **(05)**

Scores: 40,57,60,55,61,63,43,46,48,52,38,33,34,42,51,56,60,62,64,30,51,50,47,57,35,59,46,52,36 43,44,48,58,36,49,49,53,48,42,31,34,37,36,60,39,50,54,47,45,32,35,38,56,59,37,51,55,46

C. Draw a Histogram for above data. **(05)**

OR

C. Compute the Mean and median for the following table **(05)**

Class Interval	Frequency
60-64	1
55-59	4
50-54	7
45-49	9
40-44	12
35-39	8
30-34	5

25-29	3
20-24	1

Q.4 Answer the following.

A. Where and why correlation are used? **(06)**

B. What is Normal Probability curve. Explain Skewness and kurtosis. **(06)**

C. Find correlation using Person's assumed mean method for the given data **(06)**

X	Y
15	60
25	70
20	90
30	50
35	50

OR

C. Find correlation using Spearman Rank correlation from the given data. **(06)**

X	Y
80	82
45	86
55	50
56	48
58	60
60	62