24110117

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JJ – 46

B.A. (Semester – V) Examination, October/November 2017
PSYCHOLOGY
Statistics (Paper – V)

Duration : 2 Hours Max. Marks : 80

Instructions : *1) **All** questions are **compulsory**.*
*2) Figures to the **right** indicate marks.*
*3) Graph paper will be provided on **request**.*
*4) **Use** of simple calculators is **allowed**.*

1. Write short notes on **any four** of the following : **16**
   a) Inferential statistics.
   b) Continuous variables with two examples.
   c) Nominal scales with two examples.
   d) Uses of mean.
   e) Type I and Type II errors.
   f) Skewness and types.

2. Answer **any four** of the following : **16**
   a) Tabulate the following twenty five scores into a frequency distribution with a class interval of 3 and start the first class interval with the lowest score.

30	35	36	58	53
33	36	34	57	38
37	54	52	53	47
52	53	38	51	46
54	55	39	39	50

   b) The below given frequency distribution is a special case in the computation of median. Locate the Median and explain.

Scores	Frequency
45 – 49	2
40 – 44	5
35 – 39	6
30 – 34	0
25 – 29	8
20 – 24	3
15 – 19	2
	N = 26

P.T.O.

c) Plot a Histogram from the data given below. Please use a graph paper.

Class interval	Frequency
55 – 59	3
50 – 54	5
45 – 49	6
40 – 44	8
35 – 39	5
30 – 34	3
25 – 29	2
20 – 24	2

d) Plot a Frequency Polygon from the data given below. Please use a graph paper.

Class interval	Frequency
37 – 39	3
34 – 36	4
31 – 33	6
28 – 30	5
25 – 27	1
22 – 24	2
19 – 21	4

e) Compute Z score for the given data and find out whether the student did better in Psychology or Sociology.

	Psychology	Sociology
Mean	60	33
Sd	8	9
Score	70	67

f) Find the Mean, Median and Mode for the following ungrouped data :

8	13	9	13	6	10	11	12	5

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3. A) Compute Mean, Median and Mode for the following frequency distribution : **12**

Scores	Frequency
195 – 199	1
190 – 194	2
185 – 189	4
180 – 184	5
175 – 179	8
170 – 174	10
165 – 169	6
160 – 164	4
155 – 159	4
150 – 154	2
145 – 149	3
140 – 144	1

OR

B) Draw a neat diagram of the Normal Probability Curve, mark the areas representing mean and SD and state 5 characteristics of the normal curve. **12**

4. A) Compute Quartile Deviation for the following distribution : **12**

Class interval	Frequency
70 – 79	3
60 – 69	2
50 – 59	2
40 – 49	3
30 – 39	5
20 – 29	4
10 – 19	3
0 – 9	2
	N = 24

OR

B) Compute Standard Deviation for the following distribution : **12**

Class interval	Frequency
127 – 129	1
124 – 126	2
121 – 123	3
118 – 120	1
115 – 117	6
112 – 114	4
109 – 111	3
106 – 108	2
103 – 105	1
100 – 102	1
	N = 24

5. A) Compute P_{30} and P_{85} and compute PR of scores 20 and 38. **12**

Class interval	Frequency
37 – 39	2
34 – 36	10
31 – 33	15
28 – 30	19
25 – 27	16
22 – 24	18
19 – 21	9
16 – 18	7
13 – 15	3
10 – 12	1
	N = 90

OR

B) Discuss the core logic of hypothesis testing and testing significance of the difference between two means with reference to T test and levels of significance. **12**

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6. A) Compute Rank Correlation Coefficient for the scores obtained in test X and test Y and interpret the results. **12**

Students	A	B	C	D	E	F	G	H	I	J
Test X	12	15	24	20	8	15	20	20	11	26
Test Y	21	25	35	24	16	18	25	16	16	38

OR

B) Compute Product Moment Correlation Coefficient for the following sets of scores and interpret the results. **12**

Students	L	M	N	O	P	Q	R	S	T	U
Variable X	24	20	18	17	15	12	10	8	6	4
Variable Y	13	9	12	20	11	16	5	2	7	1