

**CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE FOR WOMEN,
NUVEM – GOA.**

B.A. CBCS Semester V Examination, January 2022.

PSD101

Psychology

Statistics for Psychology.

Total Marks: 80

Date: 22nd Jan 2022

Duration: 2 hours

Total No of pages: 04

Instructions: All questions are compulsory.

Figures to the right indicate marks.

Graph paper will be provided on request.

Use of simple calculator is allowed.

Q1. Write short notes on any four of the following:

16

1. Differences between inferential and descriptive statistics.
2. Uses of mean and median.
3. Steps followed in plotting an ogive.
4. One tail and two tailed tests of significance.
5. Correlation and it's types.
6. Hypothesis testing.

Q2. Answer any four of the following:

16

1. Calculate the mean for the following sets of scores.

287	289	341	129	687	933	521	366
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75	55	85	25	35	15	45	65	95	105
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2. Compute the Z scores for the following scores.

	Test score X	M μ	SD σ
1.	100	92	22
2.	88	56	15

3. Find out the median and the mode for the following sets of scores.

26	48	34	60	57	26	73
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16	47	38	24	50	38
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4. Compute the standard deviation for the following scores.

20	39	40	25	36	15	35	30	23	27
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5. The ratings of students on a talent competition are stated below. Draw up a frequency distribution table for the data beginning with a class interval of 0-4.

21	7	24	20	11	10	21	15	16	4
14	4	18	11	10	12	5	7	22	10
6	2	6	12	26	8	28	25	27	26

6. Levels of significance.

Q 3.A. Plot a frequency polygon for the following distribution.

12

84	82	72	70	72
80	62	96	86	68
68	87	89	85	82
87	85	84	88	89
86	86	78	70	81
70	86	88	79	69
79	61	78	75	77
90	86	78	89	81
67	91	82	73	77
80	78	76	86	83

OR

Q 3.B. The below table depicts the movie preferences of various individuals. Represent the data in the form of a pie chart.

12

Type of movies	No of individuals
Comedy	25
Horror	65
Action	49
Romance	78

Crime	82
Science fiction	31
Thriller	50
Animated	20

Q 4.A. Compute the mean, median and mode for the following scores.

12

Class intervals	Frequencies
135-144	1
125-134	2
115-124	8
105-114	24
95-104	33
85-94	22
75-84	9
65-74	2
55-64	1

OR

Q 4.B. Calculate the standard deviation for the following class intervals.

12

Class intervals	Frequencies
90-94	4
85-89	2
80-84	2
75-79	8
70-74	7
65-69	10
60-64	9
55-59	9
50-54	4
45-49	1
40-44	0

- Q 5.A.** Calculate a paired sample t test for the following data to find out if the mean gain from initial to final trial is significant for 5 successful trials of a symbol test. Critical t value 2.201, at 0.05 level of significance. 12

Trial 1	Trial 5
6	7
8	11
2	4
1	5
4	3
5	7
6	9
9	8
8	9
7	11
7	9
3	6

OR

- Q 5. B.** Describe the concept of skewness with the help of appropriate figures. 12

- Q 6.A.** Calculate P_{10} , P_{20} and PR of 22 and 34.5 for the following distribution. 12

Class intervals	Frequencies
45-49	2
40-44	3
35-39	2
30-34	6
25-29	8
20-24	8
15-19	7
10-14	5
0-4	9

OR

Q 6.B. Compute the product moment of coefficient of correlation for the below data.12

Individual s	Scores in X	Scores in Y
P	15	70
Q	25	50
R	30	60
S	35	40
T	20	30
U	48	80
W	42	30
X	40	25
Y	55	70
Z	50	60
