

2016
2nd Semester Examination
Applied Statistics in Physical Education and Sports
MPCC – 201

Full Marks 70

Time: 3 Hours

The figures in the margin indicate full Marks. Candidates are required to give their answers in their own words as far as practicable. Illustrate the answers wherever necessary.

Answer all Questions

1. Describe the importance of Statistics in Physical Education and Sports. 5+2+3+5 = 15
 What do you mean by the term “Data”? Describe different types of Data.
 Differentiate between parametric and nonparametric test with suitable example.

OR

Describe the meaning, function and need of Statistics in Physical Education and Sports. “Samples are the true representatives of Population” – Elucidate the statement. Differentiate between discrete and continuous variables with example. 5+5+5 = 15

2. What is the importance of construction of frequency table? Calculate the mean, median and mode from the following distribution. Use short method in computing the mean. 2+5+5+3=15

Table: I

<u>Score</u>	<u>Frequency</u>
90-94	2
85-89	2
80-84	4
75-79	8
70-74	6
65-69	11
60-64	9
55-59	7
50-54	5
45-49	0
40-44	2

OR

What are the advantages of measures of central tendency? Calculate the mean, median and mode from the following distribution. 2+5+5+3 = 15

Table: II

<u>Score</u>	<u>Frequency</u>
120-122	2
117-119	2
114-116	2
111-113	4
108-110	5
105-107	9
102-104	6
99 -101	3
96 – 98	4
93 – 95	2
90 - 92	1

3. What do you mean by dispersion? What are the measures of determining dispersion? Calculate the SD of the frequency distribution from Table: I of Question No. – 2. Draw a cumulative frequency graph of data from Table: I. 2+3+5+5 = 15

OR

What are the advantages of standard scale? Describe the methods of construction of Sigma scale. Draw an Ogive of data from Table: II 5+5+5 = 15

3. (a) Why Mean is more important than other measures of central tendency 5+4+6 = 15
 (b) Why and when acceptance of Median is more important?
 (c) Following Table shows the height in cm and weight in kg of 5 students. Find out the product moment correlation between height and weight of the students.

<u>Student</u>	<u>Height</u>	<u>Weight</u>
A	184	78
B	174	85
C	179	83
D	176	76
E	169	69

OR

- a) A strength test is administered on 6 boys of B. P. Ed course and 10 boys of M. P. Ed course. Is the mean difference between the two groups significant at 0.05 level? 8

<u>B, P, Ed</u>	<u>M. P. Ed</u>
29	16
36	28
27	25
36	32
33	29
25	21
	35
	26
	17
	21

- b) Calculate the Product Moment Coefficient of Correlation from the following Data(X = knowledge test, Y = performance test) 7

<u>Subject</u>	<u>X</u>	<u>Y</u>
A	74	40
B	50	22
C	71	36
D	54	25
E	71	34
F	56	34
G	67	28
H	59	28
I	65	30
J	60	26
K	61	32
L	62	30

4. Write short notes on any two of the following: 5 X 2 = 10
- a) Z-Scale b) Principles of Normal Curve
 c) Skewness d) Independent and dependent variables