

# MPT [1<sup>st</sup> Year]

BF/2022/04

## Computers, Research Methodology & Biostatistics (MP104)

[Common for all Specialties]

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) **USE SEPARATE ANSWER BOOK FOR EACH PART.**

3.) *The Student must write O.P. Code in the space provided on the Title page of the respective Answer Book.*

### UNIT-I

[60 Marks]

## **QP Code: MPM104** Research Methodology & Biostatistics

NOTE: 1. NON-SCIENTIFIC CALCULATOR IS ALLOWED.

2. LOG TABLE MAY BE USED IF REQUIRED.

### Long Essay

1x20=20

*Note: Attempt any one question which carries 20 marks.*

1. Describe merits and demerits of various measures of central tendency.

**OR**

2. Describe the reasons for the quality of results being superior in a randomised controlled as compared to analytic cohort study.

**Note: All Questions are compulsory. Each carries 10 marks.**

### Short Essay

4x10=40

3. Write short notes on the following:

- (i) Stratified random sampling                      (ii) Sampling errors  
(iii) Rank correlation                                      (iv) Chi- square test

4. With example, explain the difference between non-probabilistic and probabilistic sampling?

5. The mean (SD) weight in kg for a sample of 100 children is 40 (10). Test at 5% level of significance that the sample whether the sample has been drawn from a population having mean weight of 50 kg. (Table value of z at 5% level of significance is = 1.96)

6. Following is the distribution of body weight of 100 individuals:

Body weight	30 - 40	41 - 50	51 - 60	61 - 70	71 - 80
Frequency	15	45	25	10	5

Compute second quartile.

### UNIT II

[20 Marks]

## **QP Code: MPR105** **Computer**

1. Define Software? What are various type of softwares? What are their use/applications. [5]

2. What is difference between MS-Excel and MS-Access. What are features of MS- Excell. [5]

3. What are various applications of IT in Medical Sciences. How computer can be used in medical sciences. [5]

4. What is Statistical method? What are its type? What are applications of SPSS. [5]

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