2022

BMLT

[Sixth Semester]

Paper - 31 (Theo)

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

RESEARCH METHODOLOGY AND MEDICAL STATISTICS

1. **Answer any five (05) questions of the following : 2×5=10**

a) Define research as per WHO.

b) Differentiate between research and discovery.

c) What do you mean by 'Action research'?

d) Distinguish between primary and secondary data.

e) Which sampling method is commonly used and why?

f) Define dispersion statistics.

g) Write the relationship between variance and standard deviation.

h) Define degree of freedom.

2. **Answer any four (04) questions :**   **5×4=20**

a) Write the different research methods with examples.

b) State about the ideal research report preparation.

c) How do you compute Mean, Median and Iercentile for group data with examples?

d) Write the basic idea about project formulation in your subject field.

e) How do you compute SEM and skewness? Interpret these measurement.

f) Find out wheather or not significant association between diabetes and hypertensioin, when 30 people suffering hypertension out of 55 diabetes, whereas 15 are suffering hypertension out of 75 non-diabetes individuals with the below critical X^2 value.

Critical $X^2_{0.05(1)}$=3.84 / $X^2_{0.05(2)}$=5.99 / $X^2_{0.05(3)}$= 7.82

3. **Answer any one (01) question :**   **10×1=10**

a) What are the assumptions justifiable for 't'-test and ANOVA? How do you compute 't'-test of the following paired observation scores on haemoglobin percentage.

Hb%(gm) before Fe^+ therapy : 07, 09, 10, 08, 10, 09, 11

Hb% (gm) after Fe^+ therapy : 10, 10, 12, 09, 09, 09, 10

                                             3+3+4

b) Define correlation. Write the different types of correlation with examples. Find out the correlation value of the following scores of variables.

Sl No. :	1	2	3	4	5	6	7
Fasting blood Sugar: (mg/dl)	90	105	95	80	85	100	95
Serum insulin : (ml U/L)	12	09	08	06	10	10	09

                                             2+3+5