

**HOSPITAL ADMINISTRATION****Bio-Statistics and Quantitative Techniques****Q.P. CODE: 8716**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAY**1 X 20 = 20 Marks**

1. Define health statistics. Explain the uses and importance of health statistics for hospital administrator. Also highlight the difference between health statistics and statistics.

SHORT ESSAY (Answer any Seven)**7 X 10 = 70 Marks**

2. Calculate the co-efficient of correlation for the following data by the method of rank correlation

x	180	178	175	175	168	167	160	159
y	112	113	114	114	114	116	115	117

3. Discuss about normal distribution giving its properties, importance and limitation.
 4. Describe the various methods of sampling and the requisites of a good sample.
 5. Out of 1000 workers in a factory exposed to an epidemic, 700 in all were attacked, 400 had been inoculated and of these 200 were attacked. On the basis of this information, can it be said that inoculation and attack are independent. Using chi square test to prove the above.
 6. What is a questionnaire? Explain the essentials of a good statistical questionnaire.
 7. From the following data find out correlation co-efficient between income and expenditure –
- | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Income | 100 | 102 | 105 | 105 | 108 | 112 | 118 | 120 | 125 | 130 |
| Expenditure | 90 | 91 | 92 | 93 | 95 | 92 | 94 | 100 | 106 | 108 |
8. Out of 8000 persons of a town during the year 2000, 55% were males and comparative figure for year 2001 was 54%. Out of total persons in the year 2000, 4000 were smokers of which 3100 were male. The comparative figures for 2001 were 5000 and 4000 respectively. In all there was 9000 person in the year 2001. Present this given data in form of a suitable table.
 9. Explain the concept of scales of measurement and also explain few commonly used scales in statistical research.

SHORT ANSWERS (Answer any Five)**05 X 02 = 10 Marks**

10. Define event and mutually exclusive events.
11. Briefly write a note on quantitative classification of data.
12. Write short note on Z test.
13. Explain the uses of arithmetic mean in hospital administration.
14. Write a short note on Wilcoxon test.
15. Write a note of positive and negative correlation.

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