

**FEBRUARY 2008**

**[KS 862]**

**Sub. Code : 4915**

**BACHELOR OF MEDICAL RECORD SCIENCE  
DEGREE EXAMINATION.**

**First Year**

**(Non-Semester Regulations)**

**Paper V — BIO-STATISTICS, HOSPITAL  
STATISTICS**

**Q.P. Code : 704915**

**Time : Three hours      Maximum : 100 marks**

**Descriptive : Two hours and      Descriptive : 80 marks  
forty minutes**

**Objective : Twenty minutes      Objective : 20 marks**

**Answer ALL questions.**

**Essay questions :**

1. (a) Describe the 'Statistical inference'. Give an example of each type of statistical inference.
- (b) Explain the concepts of qualitative and quantitative observations. (10 + 10)

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2. A pharmaceutical company conducted a pilot study to evaluate the relationship between the doses of a new hypnotic agent and sleeping time. The results of this study are shown below :

Subjects :      1   2   3   4   5   6   7   8   9

Dose :

(ml/kg body wt) 4   6   5   9   8   7   13   11   9

Sleeping time : 5   5   5   9   9   9   12   12   12

(a) What is the regression line relating the dose to sleeping time?

(b) What is the estimated sleeping time for a patient receiving 15 ml/kg body weight of the new drug? (15)

3. (a) The following data gives age at the time of onset of a disease and result of its treatment in 400 patients :

Age at onset	Frequencies
Up to 24 years recovered	146
Up to 24 years not recovered	90
Above 24 years recovered	54
Above 24 years not recovered	110

Is there any significant association between the age at the time of onset of the disease and the results of treatment?

(b) Explain briefly the various methods of presentation of data in diagrammatic and graphic forms. (8 + 7)

Short notes : (6 × 5 = 30)

4. (a) Normal distribution.

(b) Uses of student - t - test.

(c) Coefficient of variation.

(d) Uses of Statistical Average.

(e) Limitations of sampling.

(f) Sources of health statistics.