[LD 1013]

## **OCTOBER 2013** Sub. Code: 2033 **MBA HOSPITAL AND HEALTH SYSTEM** MANAGEMENT DEGREE EXAMINATION FIRST YEAR (for candidates 2011 – 2012 onwards) PAPER III - BIOSTATISTICS AND OPERATION RESEARCH *Q.P. Code* : 432033

## Time : 3 hours

Maximum: 100 marks

## I. Elaborate on :

- 1. Briefly explain the Skill and Personal characteristics need by selecting Managers.
- 2. An animal feed company has to produce 200 kgm. of a feed mixture consisting of two ingredients  $X_1$  and  $X_2$ .  $X_1$  costs Rs. 3per kgm and X<sub>2</sub> Rs. 5 Per kgm. Not more than 80 kgm of  $X_1$  can be used and at least 60 kgm of  $X_2$  must be used. Using Simplex technique find how much of each ingredient should be used in mix of the company to minimize cost. Also determine the cost of optimum mix.

## **II.** Write notes on :

- 1. Define statistics. Discuss its scope and limitations.
- 2. Describe the various steps involving to construct a frequency table.
- 3. Explain how the data recorded in medical practice.
- 4. Define arithmetic mean. Bring out the properties of arithmetic mean.
- 5. What is Scatter diagram? Bring out the merits and demerits.
- 6. List out the advantages and disadvantages of non parametric tests.
- 7. Define operation Research. Explain the limitation of operation research.
- 8. Explain the concept of Balanced and Unbalanced problems in transportation problem.
- 9. Explain how the situational factors affecting staffing.
- 10. Define controlling. Explain the concept of effective control technique.

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(10x6=60)

(2x20=40)