MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ENTREPRENEURSHIP AND MANAGEMENT SCIENCES

FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN HUMAN RESOURCE MANAGEMENT

DIPLOMA IN BUSINESS MANAGEMENT

HRD 034/DPS 107: QUANTITATIVE METHODS

Date: 1/8/2016 **Time: 11.00-1.00 AM**

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1. a) Given the Total Cost Function; $C=3X^2-2X+10$, derive the marginal cost function (4 marks)

   b) State and explain briefly the difference between measures of central tendency and measures of dispersion. (8 marks)

   c) Write short notes on:

      i. Quota sampling (4 marks)

      ii. Cluster sampling (4 marks)

   d) Outline the main sources of primary data (8 marks)

   e) Give the features of a good questionnaire (4 marks)

2. For the data on sales below calculate the mean and the standard deviation.

   No. of sales 0-4 5-9 10-14 15-19 20-24 25-29

No. of salesmen 1 10 23 21 15 6 (20 marks)

3. Determine the co-ordinates and nature of any turning points on the cost curve represented by the cost function $Y=X^3 - 7.5X^2 + 18X + 6$ (20 marks)

4. a) What is an hypothesis? (4 marks)

   b) Explain the difference between

      i. Empirical probability and theoretical probability (8 marks)

      ii. Type 1 error and type 2 error. (8 marks)

5. A certain diet for a week has to contain a minimum amount of three nutrients; 10g of nutrient A, 12g of nutrient B and 8g of nutrient C. The nutrients are to be provided by two food stuffs X and Y in quantities shown in the table below. The price per unit of each foodstuff is the same. Find the cheapest way of providing the diet.

	Nutrient provided (g/unit)		
Foodstuff.	**A**	**B**	**C**
X	5	4	3
Y	2	3	5

(20 marks)

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FIRST SEMESTER EXAMINATION FOR DIPLOMA IN HUMAN RESOURCE MANAGEMENT

HRD 047: LABOUR ECONOMICS

Date: 12/8/2016 **Time: 2.00-4.00 PM**

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1. a) Define labour economics (3 marks)
   b) Outline the factors influencing the demand for labor. (8 marks)
   c) Explain the concept of bending supply curve of labour. (10 marks)
   d) Give the advantages of division of labour. (4 marks)
   e) Describe the main features of a perfectly competitive labor market. (5 marks)

2. Write short notes on the:
   i. Substitution effect and
   ii. Scale effect of a wage change (20 marks)

3. Explain why there has been increasing women participation rate in the labour market. (20 marks)

4. State and explain the factors responsible for wage differentials between occupations. (20 marks)

5. Give reasons as to why agricultural wages tend to be lower than the industrial sector. (20 marks)