



# FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

School of Entrepreneurship and Management Technology

Department of Project Management Technology

## Second Semester Examination: 2018/2019 Session

*MGT 324: Industrial Economics and Management - 2 Credit Units*

### INSTRUCTIONS:

- (1) Answer four (4) questions only. *Questions Nos. 1 and 2 are Compulsory*
- (2) Time Allowed: 2 Hours

### NOTE: Marks will be awarded for:

- (a) Knowledge of the subject matter
- (b) Accuracy of the answers
- (c) Logical presentation and explanation
- (d) Use of relevant diction

### **QUESTION: 1 (15 marks)**

- (a) Draw and annotate a graph showing 'Demand, Private and Social Cost' relationship in a competitive industry. (6 marks).
- (b) From the graph, complete the below equation to establish the missing relationship with respect to the following:
  - (i) Total Expenditure = ? (1.5 marks)
  - (ii) Total Private Costs = ? (1.5 marks)
  - (iii) Producer's Surplus = ? (1.5 marks)
  - (iv) Consumer's Surplus = ? (1.5 marks)
  - (v) Total Social Cost = ? (1.5 marks)
  - (vi) Net Social Benefit = ? (1.5 marks)

### **QUESTION: 2 (15 marks)**

- (a) i. Explain Production function (2 marks)  
ii. Describe types of production function. (4 marks)  
iii. Explain the concepts of Total production, Marginal production, and Average production and algebraically express their formulae. (4 marks)
- (b) Assuming a two-factor input, and a single factor output production system, show with the aid of a production matrix table how 4 units of input factor  $X_1$ , and 7 units of input factor  $Y_1$  can be combined to produce 56 units of output  $Q_1$ . Furthermore, using incremental factors of 1.350, 1.550; 1.650; 1.750 respectively on the initial two factor inputs, generate corresponding/consequential outputs viz: -  $Q_2, Q_3, Q_4, Q_5$  and show same on the matrix table. (5 marks)