Name : .....

Roll No. : .....

Invigilator's Signature : .....

CS/B.TECH(CSE, IT, EE, EEE, ICE, CT)/SEM-8/HU-802/2012

2012

INDUSTRIAL MANAGEMENT

Time Allotted : 3 Hours *Full Marks :* 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : $10 \times 1 = 10$

   i) The number of members required for registration of a Trade Union is
   a) 5 b) 7
   c) 10 d) 12.

   ii) Who proposed Hygiene theory of Motivation ?
   a) Abraham Maslow b) Philip Koteler
   c) Herzberg d) Douglas McGregor.

   iii) What is the concept that holds that consumer will prefer products that are widely available and inexpensive called ?
   a) Production concept b) Product concept
   c) Marketing concept d) Selling concept.

   iv) Planning is
   a) Looking ahead
   b) Looking back
   c) Guiding people
   d) Delegation of authority.

v) Which function of management is the basic of all other functions ?
   a) Controlling b) Staffing
   c) Planning d) Directing.

vi) FSN Analysis is required to control
   a) Quality of Product b) Inventory
   c) Industrial Dispute d) All of these.

vii) Control chart for variable is
   a) *p*-chart b) *R*-chart
   c) *C*-chart d) none of these.

viii) If the order quantity is increased, the annual cost of carrying inventory
   a) Increases b) Remains the same
   c) Decreases d) Not affected.

ix) A six sigma process ensures not more than ..... defects per million opportunities.
   a) 2700 b) 4·3
   c) 3·4 d) 99·73.

x) The basis for 'ABC' Analysis is
   a) Interests of Materials Manager
   b) Interests of Top Management
   c) Parelo's 80-20 Rule
   d) None of these.

xi) Luther Gulick states seven functions of management under the catchword
   a) PSCORBOD b) PDOSCORB
   c) PODSCORB d) DOPSCORB.

xii) Quality control is
   a) Carrot and stick approach to motivation
   b) concerned with achieving maximum user satisfaction at minimum cost
   c) the name of the department which devotes itself full time to Market Research.
   d) Collective Bargaining.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Explain the difference between production and productivity. What are the different methods of increasing productivity ?
3. Briefly describe the determination of project duration using CPM and PERT.
4. Distinguish between Marketing and Selling.
5. From the following particulars, calculate Economic Order Quantity, number of order placed during the year and the gap between orders :

   Monthly consumption 15,000 units, Carrying cost 20% on Cost of product, Cost of product is Rs. 100 per unit and Cost per order is Rs. 2000.
6. Give an account of the theory of Hierarchy of needs as proposed by Abraham Maslow.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. a) Plot $\overline{X}$ and R-chart and comment on the control status from the following data :

Individual measurement of dia (mm)

Sample No.	1	2	3	4
1	15·58	18·82	15·45	15·71
2	15·94	15·07	15·02	15·81
3	15·63	15·67	15·60	15·54
4	15·17	15·08	14·81	15·02
5	15·18	15·40	15·34	15·36

Quantity control constants are $A_2 = 0 \cdot 5768$, $D_3 = 0$ and $D_4 = 2 \cdot 114$.

b) 10 samples, each of size 100, of a pipe were inspected in pressure testing. The result of the inspection are given below :

The number of defects in the samples are 4, 0, 5, 3, 6, 2, 5, 0, 3 and 2 respectively . Draw an appropriate control chart and comment whether the process is under control or not. 9 + 6

8. What do you understand by 'Total Quality Management' ? Discuss the idea of 'Quality Circle'. 7 + 8

9. Write notes on any *three* of the following : 3 × 5

a) Product and Process layout

b) Plant location

c) Materials Handling

d) Demand Forecasting

e) Selective Inventory Control

f) Types of Production

g) Sin Sigma in Quality.

10. Write notes on any *three* of the following : 3 × 5

a) SWOT analysis

b) Management by objectives

c) Parameters of Marketing Mix

d) Benefits of Performance Appraisal

e) Break-even Analysis

f) Methods in 'Maintenance'

g) Performance Appraisal

11. a) Elucidate the steps in 'Production Planning and Control'.

b) Describe the steps in 'Method Study' and elaborate on 'Stop Watch Time Study' for determination of Standard Time. 7 + (4 + 4)