

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2016

Subject Name : Production & Operation Management

Subject Code : 4MS04POM1

Branch: BBA

Semester : 4

Date : 05/05/2016

Time : 02:30 To 05:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q-1 Attempt the following questions: (14)**
- a) With respect to PERT and CPM, slack (01)**
- a) marks the start or completion of a task.
 - b) is a task or subproject that must be completed.
 - c) is the amount of time a task may be delayed without changing the overall project completion time.
 - d) is the latest time an activity can be started without delaying the entire project.
- b) The critical path of a network is the (01)**
- a) shortest time path through the network.
 - b) path with the most activities.
 - c) path with the fewest activities.
 - d) longest time path through the network.
- c) An activity has an optimistic time of 15 days, a most likely time of 18 days, and a pessimistic time of 27 days. What is its expected time? (01)**
- a) 60 days
 - b) 20 days
 - c) 18 days
 - d) 19 days
- d) A goods-producing location decision would stress the importance of (01)**
- a) appearance and image.
 - b) parking and access.
 - c) security and lighting.
 - d) utility and labor costs.
- e) Extra units that are held in inventory to reduce stockouts are called (01)**
- a) just-in-time inventory.
 - b) reorder point.
 - c) demand variance.
 - d) safety stock
- f) The two most important inventory-based questions answered by the typical inventory model are (01)**
- a) when to place an order and how many of an item to order.
 - b) how many of an item to order and with whom the order should be placed.
 - c) when to place an order and what is the cost of the order.
 - d) how many of an item to order and what is the cost of this order.



- g) Which of the following is NOT a type of inventory? (01)
 a) finished goods b) work-in-process c) raw material d) MRP
- h) The list of quantities of components, ingredients, and materials required to produce a product is the (01)
 a) engineering change notice. b) master schedule. c) bill-of-materials. d) purchase order.
- i) A lot-sizing technique that generates exactly what was required to meet the plan is (01)
 a) the Wagner-Whitin algorithm. b) economic order quantity. c) part period balancing. d) lot-for-lot
- j) Lean production involves (01)
 a) elimination of cost only b) improvement of quality only
 c) improvement of speed only d) elimination of all types of waste
- k) The Japanese term for waste is (01)
 a) muri b) kanban c) muda d) kaizen
- l) Explain Poka yoke (01)
- m) Define MPS (01)
- n) Define Scheduling (01)

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions (14)**
 a. Write a detailed note on Kanban. (7)
 b. Define MRP. Explain various Inputs require for MRP and also Output from MRP. (7)
- Q-3 Attempt all questions (14)**
 a. Explain the concept of 5S Housekeeping techniques. (7)
 b. Compare and contrast fixed quantity inventory system with fixed period inventory systems. (7)
- Q-4 Attempt all questions (14)**
 a. Define Supply Chain Management. Explain the recent changes in business environment which made supply chain management highly important. (7)
 b. Explain Characteristics of JIT in detail. (7)
- Q-5 Attempt all questions (14)**
 a. Compare and contrast PERT and CPM. (7)
 b. Discuss the importance of information technology in managing supply chain. (7)
- Q-6 Attempt all questions (14)**
 a. Write a note on Project Management. (7)
 b. Short Note on ISO 9000 series. (7)



Q-7

Attempt all questions

(14)

Find the optimal cost for performing the below mentioned tasks on various machines. The cost schedule(Rs.) for the jobs on various machines is as follows:

JOB	MACHINE				
	A	B	C	D	E
I	5	6	4	8	3
II	6	4	9	8	5
III	4	3	2	5	4
IV	7	2	4	5	3
V	3	6	4	5	5

Q-8

Attempt all questions

(14)

A bus is to be assembled. Five hundred buses are required per day. Production time per day is 420 minutes, and the assembly steps and times for the wagon are given below

Task	Task Time (Seconds)	Preceding Tasks
A	45	-
B	11	A
C	9	B
D	50	-
E	15	D
F	12	C
G	12	C
H	12	E
I	12	E
J	8	F,G,H,I
K	9	J

Find

1. Draw Precedence Diagram
2. Calculate Workstation Cycle time.
3. Determine theoretical number of workstations
4. Balance line using the primary rule of maximum no. of followers.
5. What is the efficiency of the line?

