

**END TERM EXAMINATION****FIFTH SEMESTER [BBA] DEC.2014 – JAN.2015****Paper Code: BBA-305 Subject: Production and Operation Management****Time: 3 Hours****Maximum Marks: 75****Note: Attempt any five questions in all. Select atleast two questions from each section.****SECTION-A**

- Q1 (a) Discuss different types of production systems with suitable examples. (8)  
 (b) Define Productivity. Briefly discuss different ways of Improving productivity. (7)
- Q2 Discuss atleast one international and one national level quality awards highlighting- (15)  
 (a) Organization/agency which instituted the awards.  
 (b) Objective  
 (c) Application and evaluation process.  
 (d) Winners in the recent times.
- Q3 (a) List and explain different types of costs in Inventory system. (8)  
 (b) What is the difference between single sampling plan and double sampling plan? (7)
- Q4 (a) What are the factors affecting plant location? Explain with examples. (5)  
 (b) Explain the steps in obtaining ISO 9001:2008 certification. (5)  
 (c) What are some useful suggestions for managing queues that go beyond the quantitative waiting line models? (5)

**SECTION-B**

- Q5 (a) Briefly explain the purpose and concept of line of Balance. (5)  
 (b) Potential locations A, B and C have the cost structure as shown below to producing a product expected to sell for Rs. 3250 per unit. Find the most economical location for an expected volume of 2750 units per year. (10)

Site	Fixed cost/year (Rs.)	Variable cost/year (Rs.)
A	65,00,000	1200
B	75,00,000	560
C	55,00,000	4250

- Q6 (a) Annual demand for an item is 5400 units. Ordering cost is Rs. 600 per order. Inventory carrying cost is 30% of the purchase price per unit per year. The price breaks are as shown below.

Quantity	Price (Rs.)
$0 \leq Q_1 < 2400$	12
$2400 \leq Q < 3000$	10
$3000 \leq Q$	8

Find the optimal order size.

(10)

(b) What are the different types of layout? Explain them with examples. **(5)**

Q7 Write short note on **any three** of the following:-

**(5x3=15)**

- (a) KAIZEN
- (b) POKA-YOKE
- (c) SIX SIGMA
- (d) BENCH-MARKING

Q8 (a) The following table gives the numbers of defects in a casting used for making crank case of a diesel engine. **(9)**

<b>Casting No.</b>	1	2	3	4	5	6	7	8	9	10
<b>No. of defects</b>	15	11	25	10	12	20	15	10	17	13

Construct a suitable control chart with 3-sigma limits and comment on the casting process.

(b) What are the cost of Quality? Briefly explain each.

**(6)**