No. of Printed Pages : 3

ET-581(B)

B.Tech. Civil (Construction Management)

Term-End Examination

00487 **December, 2017**

ET-581(B) : INVENTORY AND STORES MANAGEMENT

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt any **ten** questions. All questions carry equal marks. Use of scientific calculator is permitted.*

1. Explain any ***two*** of the following terms with examples : 7

(a) Ordering cost

(b) Holding cost

(c) Stock-out cost

2. The ordering cost of an item is ₹ 50 per order, holding cost is 10% of the purchase price which is ₹ 110 per unit. Calculate the economic order quantity for an annual demand of 50,000 units. 7

3. The demand for bearing, produced by a company is uniform at 25 units per day. It is estimated that each time a production is set, the company incurs ₹ 60 as fixed cost. Production cost is ₹ 4 and carrying cost is ₹ 1·00 per unit per day. If the shortage cost is ₹ 6 per bearing per day, find the frequency of production run and the optimal production size. 7

4. A company produces 4800 parts per day and sells them at approximately half of that rate. The set-up cost is ₹ 1,000 and carrying cost is ₹ 5 per unit. The annual demand is 4,80,000.

Find : 7

(a) Optimal lot size

(b) Number of production runs that should be scheduled per year

(c) Length of each production run

5. Suppose the lead time for procurement of a product gets doubled, will you recommend doubling its buffer stock ? Justify your answer. 7

6. Discuss the importance of inventory management in a construction firm. 7

7. "Success of any construction project depends on the reliability of suppliers." Justify the statement with suitable examples. 7

8. (a) What are the different records maintained in the store ?

(b) Discuss the different methods of checking the stock in the store. *3+4=7*

9. Explain the main considerations necessary in storing and stacking of common civil engineering materials. 7

10. What is Buffer stock ? List the reasons for keeping a buffer stock. 7

11. What is the A-B-C control policy of inventory ? Bring out the salient features and various advantages obtained by it. 7

12. Assume that product Z is made of two units of A and four units of B. A is made of three units of C and four units of D. D is made of two units of E.

    (a) Show the bill of materials (product structure tree).

    (b) If 100 Z are required, how many units of each component are needed ? 7
