

CS/B.TECH (AUE)/SEM-8/AUE-801/2012

2012

**TRANSPORT MANAGEMENT AND
AUTOMOBILE INDUSTRY**

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 the following :

10 × 1 = 10

(i) In ABC analysis, the A items are those which represent

a) small percentage of the total annual consumption
value

b) high percentage of the total annual consumption
value

c) high percentage of closing inventory value

d) small percentage of closing inventory value.

(ii) Lifting of Licensing system was done by Government of
India during

a) 1982 b) 1993

c) 1990 d) none of these.

(iii) Direct cost of operation include

a) depreciation on vehicle due to operation

b) depreciation on vehicles due to ageing

c) depreciation on assets other than vehicles

d) both (a) and (b) .

(iv) Primary function of Stores is

- a) keep optimum flow of consumables
- b) keep all the items as much as possible
- c) control inventory
- d) all of these.

v) Maruti Udyog Ltd. set up their factory to established volume production of contemporary models in the year of

- a) 1985 b) 1982
- c) 1980 d) 1984.

vi) The purpose of safety stock is to

- a) replace failed units with good ones
- b) eliminate the possibility of a stock out
- c) eliminate the likelihood of a stock out due to erroneous inventory tally
- d) control the likelihood of a stock out due to the variability of demand during lead time.

vii) Purpose of preventive maintenance is to

- a) reduce repairing cost
- b) increase the effective life of the vehicle
- c) eliminate breakdown of the vehicle
- d) none of these.

viii) EOQ is a (an) inventory system.

- a) periodic b) continuous
- c) optimal d) economic .

ix) A product has demand of 4,000 units per year. Ordering cost is Rs. 20 and holding cost is Rs. 4 per unit per year. The cost-minimizing solution for this product is to order

- a) all 4,000 units at one time
 - b) 200 units per order
 - c) 1000 units per order
 - d) 400 units per order .
- x) Which of the following skill(s) should be adopted for fuel saving in 2-wheeler driving ?
- a) Overloading
 - b) Driving speed between 30 to 40 kmph
 - c) Avoiding frequent braking
 - d) Both (b) and (c) .

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Explain the objectives of scientific inventory management in a manufacturing concern.
3. Write short note on Society of Indian Automobile Manufacturer (SIAM).
4. Differentiate between preventive maintenance and break down maintenance.
5. What Restrictions are imposed on a Learner driving license ?
6. In an automobile manufacturing facility, the management has brought down the cost of ordering of automotive components from Rs. 500 to Rs. 50 through the introduction of electronic ordering. The annual demand of cars is 15,000 units. Inventory carrying cost of automotive components is Rs. 20 per unit per year. Now assume the company runs its manufacturing operation for 300 days a year. What would be the number of days inventory to be carried in both the cases ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Derive the Wilson Lot Size Formula and write down the assumptions.

b) A cast iron bracket has a demand of 9000 units per year. The ordering cost is Rs. 100 per order and the carrying cost per unit is Rs. 2.40 per year. The replacement is instantaneous and no shortages are allowed. Determine :

(i) Economic lot size

(ii) The number of orders per year

(iii) The time between orders

(iv) The company operates for 300 days per years. The procurement time is 10 days and the safety stock is maintained at a level of 100 units. Find the recorder point, the maximum inventory and the average inventory.

(v) Minimum total variable yearly cost

(vi) The total cost per year if Rs. 3 is the cost of one item. $5 + 10$

8. a) Discuss the bin card system and its purpose.

b) Describe the method of material identification in automobile store.

c) Write short notes on the following :

(i) LIFO

(ii) Weighted Average Pricing Method. $5 + 5 + 5$

9. a) Explain the different fare systems of an undertaking with respect to hilly areas, express and luxury service

and peak hours.

b) Explain the merits and demerits of hand-written ticket and pre-printed denomination ticket.

c) Explain quality of good ticketing system. 5 + 5 + 5

10. a) Explain how the preventive maintenance enhances the life of the vehicle.

b) Explain the different types of driving license.

c) Explain the procedure of registration of a vehicle .

5 + 5 + 5

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

a) Safety stock and Reorder point

b) ACMA

c) Route planning scheduling

d) Fleet management

e) Vehicle permit.