

**CS/B.TECH/AUE/SEM-8/AUE-801/2013**

**2013**

**TRANSPORT MANAGEMENT  
& 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 :  $10 \times 1 = 10$

i) An inventory decision rule states "When the inventory level goes down to 14 gearboxes, 100 gearboxes will be ordered." Which of the following statements is true ?

a) 100 is the reorder point, and 14 is the order quantity

b) 14 is the reorder point, and 100 is the order quantity

c) The number 100 is a function of demand during lead time

d) 14 is the safety stock, and 100 is the reorder point.

ii) ABC analysis is based upon the principle that

a) all items in inventory must be monitored very closely

b) there are usually a few critical items, and many items which are less critical

c) an item is critical if its usage is high

d) the safety stock in terms of volume should be

higher for *A* items than for *C* items.

iii) EOQ is the quantity that minimizes

a) total ordering cost b) total inventory cost

c) safety stock level d) total interest cost.

iv) Periodic maintenance schedule is done on the basis of

a) distance travelled

b) duration

c) from previous experience

d) all of these.

v) The Indian Automotive Industry is in terms of numbers

for the year 2011 is

a) the second largest in the world

b) the fifth largest in the world

c) the thirteenth largest in the world

d) India does not have an international ranking.

vi) Maruti Udyog Limited set up their first factory in

India in

a) 1985 b) 1982

c) 1980 d) 1984.

vii) The Indian Motor Vehicles Act first came into effect from

a) 1934 b) 1907

c) 1917 d) 1939.

viii) A light motor vehicle as defined in the Motor Vehicles

Act is one

a) whose weight is below 500 kgs

b) has a body constructed in light weight materials

c) is a transport vehicle or omnibus whose laden

weight is below 4000 kgs or a car or tractor whose

empty weight is less than 4000 kgs

d) none of these.

ix) Under the Motor Vehicles Act, a Tractor is a vehicle

a) only used for agricultural purposes

b) only if it has large rear wheels

c) which is not constructed to carry any load on itself

other than equipment used for the purposes of its

propulsion

d) any motor vehicle apart from a bus, car, motorcycle

or road roller.

x) ARAI is a body that is involved in

a) type certification of any new motor vehicle to be

introduced for usage on the Indian roads

b) deals with the commercial interactions between the

Government and the Indian Manufacturers

c) is an industrial association under the Government

of Assam

d) none of these.

### **GROUP – B**

#### **( Short Answer Type Questions )**

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

2. What is Fleet Management ? What are the advantages of

Fleet Management ?  $2 + 3$

3. Write short notes on the following :  $2 \times 2\frac{1}{2}$

i) Last In First Out Method (L.I.F.O.)

ii) Weighted Average Method.

4. How many chapters does the Indian Motor Vehicles Act

have ? Write the justifications for the rules given in any one

of the chapters.  $2 + 3$

5. India has at least four major 'clusters' where automobiles are

manufactured. Name at least two of them and at least three makes of automobiles manufactured in that cluster. 2 + 3

6. Discuss how probability and statistics may be used in improving fleet management.

### **GROUP – C**

#### **( Long Answer Type Questions )**

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

7. a) What is vehicle tracking system (VTS) ? Why is it needed ?

b) Explain with reason, why VTS is used in Logistic company. Explain the standard features of VTS.

c) Explain the application of Fleet Management.

( 2 + 3 ) + ( 3 + 2 ) + 5

8. a) Describe the classification of material for Inventory control. What is Re-order point ? Explain the assumption of Re-order point.

b) An automobile firm produces 3000 motorcycles per month. One of the transmission gears which is manufactured at the company's own plant costs Rs. 60 each. The total setup cost to prepare the machine for blanking, hobbing, shaping and bore grinding has been calculated at Rs. 1,500 per production run. Inventory carrying costs are estimated at 20% of the average investment. How much quantity should be manufactured in each production run to minimize inventory cost ? ( 5 + 2 + 2 ) + 6

9. a) Differentiate between Condition based maintenance and Breakdown maintenance.

b) Explain, how parts are controlled in Stores at State

Transport Undertaking. Describe the common rules for  
issue of material. 5 + ( 5 + 5 )

10. Discuss the Indian Motor Vehicles Act and write a note on  
the use of the Act in maintaining safety and security of all  
users of the road and motor vehicle services.

11. Discuss how statistics and quality control methods can be  
used for further improving the effort required in Fleet  
Maintenance.

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