COURSE TITLE : TRANSPORT MANAGEMENT
COURSE CODE : 6053
COURSE CATEGORY : A
PERIODS/WEEK : 5
PERIODS/SEMESTER: 75
CREDITS : 5

TIME SCHEDULE

Module	Topics	Periods
1	Legal aspects involved with motor transportation and organizations of transport management	18
2	The operation of goods vehicles / buses	18
3	Fare collection system Automobile marketing	18
4	The various design considerations involved in road construction Motor Vehicle insurance	21
TOTAL		**75**

GENERAL COURSE OUTCOME

Sl. No.	Sub	Students Will be able to
	1	Understand the legal aspects involved with motor transportation, types of fleet, vehicles and organizations employed in transport management
	2	Understand the operation of goods vehicles / buses
	3	Understand Motor vehicle act
	4	Understand the features of trip.
	5	Design the fare collection system Understand the features of automobile marketing
	6	Recognize the various design considerations involved in road construction
	7	Appreciate the importance of insurance coverage
	8	Compute cost of an accident repair
	9	Explain duties and responsibilities of Vehicle Dealers

SPECIFIC COURSE OUTCOME

MODULE I

1.1.0 Understand the legal aspects involved with motor transportation, types of fleet, vehicles and organizations employed in transport management

1.1.1 Explain the legal aspects of motor transport
1.1.2 Describe the importance of M. V. Act
1.1.3 State the duties of drivers and conductors
1.1.4 Explain the method of obtaining driving license for two wheeler / light passenger vehicle/ heavy goods transport vehicles
1.1.5 State the testing procedure and reasons for disqualification for driving
1.1.6 Explain the various traffic signs and signals
1.1.7 Explain the registration procedure for the vehicle
1.1.8 State the necessity of permit
1.1.9 List the specific type of operations such as passenger transport, goods transport, municipal transport, ambulance etc and to know the requirements of these components
1.1.10 Prepare the organizational structure of motor transport organization
1.1.11 Outline the importance of motor transport organization
1.1.12 Classify the motor transport organization
1.1.13 Differentiate between passenger transport and goods transport, public transport and private transport
1.1.14 Classify the transport carriers
1.1.15 Describe the functional wings of transport system
1.1.16 Explain the criteria and mode of staffing in transport system
1.1.17 Outline the need and type of training programmes to be given to the staff
1.1.18 State the facts to be considered for deciding the fleet strength, selecting the site for Depot
1.1.19 State the facilities required at a depot

MODULE II

2.1.0 Understand the operation of goods vehicles / buses

2.1.1 Outline the fundamentals of bus operations
2.1.2 Identify the type of bus operation – city, city – suburban and inter – city operations
2.1.3 Describe the bus operating characteristics
2.1.4 Explain the factors such as utility, capacity dependability, safety, distance, speed, road Condition fuel economy, traffic interference
2.1.5 List the factors to be considered for fuel economy and traffic interference
2.1.6 Define the terms related to trip generation
2.1.7 Explain factors to be considered for trip generation
2.1.8 List the different types of para-transit in Indian cities
2.1.9 State the characteristics of para-transit
2.1.10 Explain other modes of transportation such as LRT, MAGLEV,ETB, and TOFC
2.1.11 Explain traffic data – published data and field surveying
2.1.12 Analyse transport co-ordination and its significance
2.1.13 Explain co-ordinative factors in transportation
2.1.14 Explain the methods of co-ordination in the transport operations

2.1.15 Explain the procedure in bus and crew scheduling
2.1.16 List the factors to be considered in bus scheduling
2.1.17 Explain the calculation of number of buses required for different frequencies
2.1.18 Explain how to make a bus schedule
2.1.19 State the factors to be considered in crew schedule
2.1.20 Explain how to make crew scheduling
2.1.21 Explain the uses of computer in scheduling
2.1.22 Explain how the productivity can be increased in scheduling
2.1.23 Explain motor transport workers Act No-27 of MTW Act 1961 chapter 1
2.1.24 Describe the components of vehicle operational cost
2.1.25 Compute the total cost of operation
2.1.26 Explain the various incentive schemes for accident prevention and efficient operation

MODULE III

3.1.0 Understand the features of trip.

3.1.1 Explain the term traffic demand by identifying the peak period slack period and average period
3.1.2 Explain the term route survey and significance of it
3.1.3 Describe the following terms duty roasters, trip sheet & way bill
3.1.6 State the meaning of trip generation and explain the factors to be considered for trip generation
3.1.7 Explain the concepts of trip distribution (Trip distribution mathematical models not necessary)

3.1.0 Design the fare collection system

3.2.1 State the requirements of a good fare system
3.2.2 Explain the method of drawing of fare tables with examples
3.2.3 Explain the traffic and fare system in transport organization
3.2.4 Explain peak hours demand, express, limited stop service, relief service
3.2.5 Explain the fare structure
3.2.6 State the requirements for good fare system
3.2.7 Explain different services relating to distances
3.2.8 State the different fare systems
3.2.9 Explain the concept of fare stage
3.2.10 Explain how to design a fare stage
3.2.11 Explain the fare collection methods - ticketing
3.2.12 Explain the documentation involved in consignment shipment.

3.3.0 Understand the features of automobile marketing

3.3.1 Explain the organization of automotive business in the world
3.3.2 Recognize the significance of customer relations
3.3.3 Explain the background of marketing
3.3.4 Identify the functions of marketing activities
3.3.5 Describe workshop management
3.3.6 Explain the duties and responsibilities of dealer, workshop manager, supervisor, cashier, mechanic etc

3.3.7 Explain the warranty procedures

MODULE IV

4.1.0 Recognize the various design considerations involved in road construction

4.1.1 List the different types of roads

4.1.2 Identify the design considerations involved in road construction such as cross sectional elements, horizontal alignment, curves, super elevation, gradient etc.

4.1.3 Explain the features of hill road construction

4.1.5 Describe the concept of road intersection and traffic control at intersections

4.1.6 Identify the methods of collecting traffic data for improving existing road facilities comprising of volume study, origin & destination study, road parking study, speed & delay study

4.2.0 Appreciate the importance of insurance coverage

4.2.1 Describe the functions of insurance companies

4.2.2 Identify the types of Insurance Policies

4.2.3 Explain the factors involved in assessing accident damaged vehicle.

4.2.4 State the terms used to describe damage and repair of vehicle

4.2.5 Explain point of impact related to accident

4.2.6 Compute cost of accident

4.2.7 Explain Motor Accident Claims Tribunal

CONTENT DETAILS

MODULE-I

Features of M. V. Act – definition of terms – test for drivers and conductors – registration of vehicles – duties of drivers and conductors – traffic signs – mode of staffing in a depot – site selection and facilities in a depot – M. T. O. and functional wings – organization chart

MODULE – II

Bus operation – Factors governing bus schedule – making a bus schedule – operating characteristics – trip generation and trip distribution – No. of bus required for operation – preparation of time table for bus and crew – factors governing crew scheduling – making a crew scheduling. Components of vehicle operational cost. Types of transport co-ordination and co-coordinating factors. Intermediate public transport in Indian cities(IPT)/Para transit, Characteristics of IPT modes, Light rail transit(LRT/Tram), electric trolley bus (ETB), Magnetic levitation (MAGLEV) system, container freight station, Trailer on flat car, Automatic Guided Vehicle(AGV)

MODULE – III

Traffic demand- trip sheet and way bill – Route survey- Fare collection – Route planning – Fare structure and table – ticket system –– fare methods – fare stage – organization of automotive business –

marketing back ground – functions of marketing activities – workshop management –responsibilities of dealer – duties of workshop staff – warranty. Consignment shipment.

MODULE – IV

Importance of roads – traffic studies and high way planning – Road geometry – width of high way – gradient – cross section of road – super elevation and sight distance – road intersection – traffic lights – location of bus stop, bus bay, zebra crossing and parking positions – traffic census. Insurance surveying – companies – classification of policies – third party insurance – factors involved in assessing – MACT

TEXT BOOKS

1. Transport Management –TTTI, CHENNAI
2. Anil Chikara- Automobile Engineering Vol. III – Satya Prakasan

REFERENCES

1. M. V. Act (1988)
2. P. R. K. Sharma- Motor Transport organization -
3. L. D. Kitchen - Bus operation - Illiffe
4. C. I. R. T, Pune - Bus operation, Bus & crew scheduling -
5. L. R. Kadiyali - Transport Engg. and Transport planning – Khanna publications
6. V.N. Vazirani & S. P. Chandola - Transportation Engineering - Khanna publications