Department of Automobile Engineering			LP: AE18701
B.E/~~B.Tech/M.E/M.Tech~~	: **Automobile Engineering**	Regulation: **2018**	Rev. No: 00
PG Specialisation	: **NA**		Date: 23.07.2021
Sub. Code / Sub. Name	: **AE18701 Mobility Engineering Management**		
Unit	: I		

Unit Syllabus: INTRODUCTION

Personnel management; objectives and functions of personnel management, industrial and organizational psychology, industrial sociology, application of sociology, industrial relations, introduction to personality disorders. Selection process - stages of selection, employment tests, interviewing, training objectives, advantages, methods of training, training methods, psychological tests.

Objective: To understand the different functions of personnel management.

Session No *	Topics to be covered	Ref	Teaching Aids
1	Introduction to personnel management,	1,2	PPT
2	objectives and functions of Personnel management	1,2	PPT
3	Industrial and Organizational Psychology	1,2	PPT
4	Industrial Sociology and Applications,	1,2	PPT
5	Industrial relations	1,2	PPT
6	Introduction to Personality Disorders.	1,2	PPT
7	Selection process-job description	1,2	PPT
8	difference between recruitment and selection, stages of selection	1,2	PPT
9	Employment tests, Interview, interview formats	1,2	PPT
10	Training, need for training, objectives and advantages	1,2	PPT
11	Training methods, procedures	1,2	PPT
12	Psychological tests, types, concepts	1,2	PPT
Content beyond syllabus covered (if any):			

* Session duration: 50 minutes

Sub. Code / Sub. Name: **AE18701 Mobility Engineering Management**

Unit : **II**

Unit Syllabus : TRANSPORT SYSTEMS

Introduction to various transport systems, selection of transport mode, Types of motor vehicles, advantages of motor transport, recent developments in transport sector, Road transport and highways - administrative units, powers and duties of employees, organizational setup, Structure of fleet management, optimum utilization of fleet.

Objective: To make the students understand the importance of managing different transport systems.

Session No *	Topics to be covered	Ref	Teaching Aids
13	Introduction to various transport systems	1,2	PPT
14	Selection of transport mode	1,2	PPT
15	Types of motor vehicles	1,2	PPT
16	Advantages of motor transport	1,2	PPT
17	Recent developments in transport sector	1,2	PPT
18	Road transport and highways: administrative units	1,2	PPT
19	Road transport and highways: powers and duties of employees, organizational setup	1,2	PPT
20	Road transport and highways: organizational setup	1,2	PPT
21	Structure of fleet management	1,2	PPT
22	Optimum utilization of fleet	1,2	PPT
23	Govt. Transport Corporation	1,2	PPT
24	Govt. Transport Corporation	1,2	PPT
Content beyond syllabus covered (if any): Govt. Transport Corporation			

* Session duration: 50 mins

Sub. Code / Sub. Name: **AE18701 Mobility Engineering Management**

Unit : **III**

Unit Syllabus : SCHEDULING AND FARE STRUCTURE

Principal features of operating costs for transport vehicles with examples of estimating the costs, Fare structure and method of drawing up of a fare table, Various types of fare collecting methods, Basic factors of bus scheduling. Problems on bus scheduling.

Objective: To practice the procedure for preparing bus schedule and fare structure.

Session No *	Topics to be covered	Ref	Teaching Aids
25	Operating cost for transport vehicles.	1,2	PPT
26	Estimation of operating cost.	1,2	PPT
27	Estimation of operating cost.	1,2	PPT
28	Estimation of operating cost.	1,2	PPT
29	Fare structure and fare table.	1,2	PPT
30	Fare collection, various methods.	1,2	PPT
31	Fare collection, various methods.	1,2	PPT
32	Basic factors of bus scheduling.	1,2	PPT
33	Introduction to bus scheduling .	1,2	PPT
34	Problems on bus scheduling.	1,2	PPT
35	Problems on bus scheduling.	1,2	PPT
36	Problems on bus scheduling.	1,2	PPT
Content beyond syllabus covered (if any):			

* Session duration: 50 mins

Sub. Code / Sub. Name: **AE18701 Mobility Engineering Management**

Unit : **IV**

Unit Syllabus : MOTOR VEHICLE ACT

Registration of motor vehicles, traffic signs, fitness certificate, permit, motor vehicle insurance policies, Transfer of ownership, transfer of vehicles from state to state, Principles of driving, driving procedure, types of driving licenses, Licensing of conductors, Description of vehicles and Constructional regulations - tanker, tipper, delivery van, power wagons, recovery van and fire fighting vehicles, spread over, running time, test for competence to drive.

Objective: To gain knowledge about motor vehicle act.

Session No *	Topics to be covered	Ref	Teaching Aids
37	Introduction Motor Vehicle Act,	1,4	PPT
38	Registration of Motor Vehicles	1,4	PPT
39	Traffic signs	1,4	PPT
40	Fitness Certificate	1,4	PPT
41	Permit, Motor vehicle Insurance Policies	1,4	PPT
42	Transfer of ownership, Transfer of Vehicles from State to State	1,4	PPT
43	Principles of driving, driving procedure,	1,4	PPT
44	types of driving licenses. Licensing of conductors	1,4	PPT
45	Description of vehicles and Constructional regulations: Tanker, Tipper	1,4	PPT
46	Description of vehicles and Constructional regulations: Delivery vans and recovery vans	1,4	PPT
47	Description of vehicles and Constructional regulations: Power wagons and fire fighting vehicles.	1,4	PPT
48	Spread over and running time, Test for competence to drive	1,4	PPT
Content beyond syllabus covered (if any):			

* Session duration: 50 mins

Sub. Code / Sub. Name: **AE18701 Mobility Engineering Management**

Unit : **V**

Unit Syllabus : MAINTENANCE

Preventive maintenance system in transport industry, general layout of modern service station, tyre maintenance procedures, causes for uneven tyre wear, remedies, maintenance procedure for better fuel economy, Design of bus depot layout.

Objective: To understand the importance of maintenance involved in transport industry.

Session No *	Topics to be covered	Ref	Teaching Aids
49	Introduction to maintenance.	1,2	PPT
50	Various types of maintenance.	1,2	PPT
51	Preventive maintenance in transport industry.	1,2	PPT
52	General layout of modern service station - 2 Wheelers	1,2	PPT
53	General layout of modern service station - LCV	1,2	PPT
54	General layout of modern service station - HCV	1,2	PPT
55	Tyre maintenance procedures.	1,2	PPT
56	Causes for uneven tyre wear and remedies	1,2	PPT
57	Factors affecting fuel economy	1,2	PPT
58	Maintenance procedure for better fuel economy.	1,2	PPT
59	Maintenance procedure for better fuel economy.	1,2	PPT
60	Design of bus depot layout.	1,2	PPT
Content beyond syllabus covered (if any): General layout of modern service station - LCV, HCV			

* Session duration: 50 mins

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REFERENCES:

1. Khilery. V.S. and Dr. Satpal Sharma, "Motor Vehicle Act and Transport Management", I edition, Ishan Publications, India, 2016.
2. Kitchin. L.D., "Bus Operation", III edition, Illiffee and Sons Co., London, 1992.
3. John Duke, "Fleet Management", McGraw-Hill Co, USA, 1984.
4. Government Motor Vehicle Act, Publication on latest act to be used as on date.

	Prepared by	Approved by
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Designation	Assistant Professor	HoD/AUT
Date	23.07.2021	23.07.2021
Remarks *: The same lesson plan is followed for the odd semester of academic year 2022-23. J. Dhanabal 27/7/22 J. Dhanabal, Asst. Professor		Dr. J. Venkatesan, Prof. & Head 27/7/2022
Remarks *: The same lesson plan is followed for the odd semester of academic year 2023-24. J. Dhanabal 12/7/23 J. DHANABAL, Asst. Professor		Dr. J. VENKATESAN, Prof. & Head 12/7/2023

* If the same lesson plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD