



Sem : VII
Subject :VS

Department of Mechanical Engineering
Preliminary Examination (SH-2023)

Time: 3 Hours
Max. Marks: 80

Note :

- **Question No.1 is compulsory.**
- Solve **ANY THREE** questions from the **remaining** five questions.
- Figure to the right indicates full marks.
- Assume suitable data wherever required, but justify the same.
- Illustrate your answers with sketches wherever necessary.

		Marks	CO	BTL
Q. 1	Solve ANY FOUR questions from following. (Each question carries 5 marks)	20		
a)	Explain the layouts of Rear Engine Rear Wheel Drive and Front Engine Front Wheel Drive.		CO-1	BTL-2
b)	Describe with a neat sketch a leading shoe.		CO-2	BTL-2
c)	Describe the basic considerations in the design of suspension system.		CO-3	BTL-2
d)	Describe the 20-h and 25-A rating of a lead acid battery.		CO-4	BTL-2
e)	Describe with neat sketch Visibility and Blind area of a vehicle.		CO-5	BTL-2
Q. 2				
a)	Explain V2V system used in passenger cars.	10	CO-6	BTL-2
b)	Describe with neat sketch the construction and working of a single plate dry friction clutch.	10	CO-1	BTL-2
Q. 3				
a)	Describe with neat sketch the construction and working of two leading type of brake shoe arrangement.	10	CO-2	BTL-2
b)	Describe with neat sketch the construction and working of Double Wishbone Suspension system.	10	CO-3	BTL-2
Q. 4				
a)	Describe with neat sketch the construction and working of a distributorless ignition system.	10	CO-4	BTL-2
b)	Describe the various types of materials used for body construction.	10	CO-5	BTL-2
Q. 5				
a)	Explain the construction and working of Differential.	10	CO-2	BTL-2
b)	Describe with neat sketch, INSET/OUTSET/ZEROSET type of wheel.	10	CO-3	BTL-2
Q. 6				
a)	Describe the construction and working of Standard Bendix Drive.	10	CO-4	BTL-2
b)	Describe the working of Telescopic Shock Absorber.	10	CO-3	BTL-2
