Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- III

COURSE CODE : AE-401 | **DURATION : 2 (THREE)HRS**
COURSE TITLE : AUTOMOBILE DRAWING | **MAXIMUM MARKS : 50**
SESSION : JULY-DEC 2020 | **PASS MARKS : 35 %**

NOTE:
1. *All the questions are compulsory*
2. *Attempt any 5 (five) questions.*
3. *Mark for each question is shown against it.*
4. *Assume suitable logical data wherever necessary.*

1.	**(a)**	Draw schematic diagrams showing the layout of the transmission system of a (a) Front engine rear drive (b) front engine front drive (c) Rear engine rear drive	**(10)**
2.	**(a)**	With suitable sketch of Torsional Spring clutch, discuss the functions and requirements of an Automotive Clutch.	**(10)**
3.	**(a)**	With the help of neat and labelled sketches, describe the main components of a passenger car body.	**(5)**
	(b)	Discuss in detail any five various requirements of a vehicle body.	**(5)**
4.	**(a)**	Explain, with the help of neat and labelled sketches, the function and construction of a Leaf Spring and show how it is mounted on rear and front. What are the objectives of vehicle suspension?	**(10)**
5.	**(a)**	Describe the function of a transmission in a vehicle.	**(2)**
	(b)	Describe, with the help of a neat and labelled sketch, the construction and operation of a Constant mesh gearbox.	(8)
6.	**(a)**	Draw a schematic diagram of Spark Plug. Discuss the requirements of a good sparking plug	**(6+4)**
7.	**(a)**	Describe the function and construction of any TWO with the help of neat sketch (i) CRANKSHAFT (ii) CONNECTING ROD (iii) PISTON	**(2×5)**
8.	**(a)**	The stroke of the follower is 40 mm and the minimum radius of the cam is 50 mm. The follower moves with uniform velocity during both the outsroke and the return stroke. Draw the profile of the cam when (a) the axis of the follower passes through the axis of the cam shaft and	**(10)**

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