

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	The advantage of having a tandem master cylinder arrangement in automobiles is that it
Option A:	Enhances safety by serving two independent lines in a divided line brake circuit
Option B:	Enhances safety by activating the brakes using vacuum pressure in the event of brake fluid loss
Option C:	Supplies equal fluid pressure to each line of a divided line brake circuit, thereby preventing the brakes from dragging on one side
Option D:	Boosts the brake fluid pressure to reduce the force required to depress the brake pedal
2.	The clutch is located between the transmission and
Option A:	Engine
Option B:	Rear axle
Option C:	Propeller shaft
Option D:	Differential
3.	The tilting of the front wheels away from the vertical, when viewed from the front of the car, is called
Option A:	Camber
Option B:	Castor
Option C:	Toe-in
Option D:	Toe-out
4.	The function of universal joint is allow the propeller shaft to
Option A:	Change length
Option B:	Bend sideways
Option C:	Transfer torque at an angle
Option D:	Change the speed of wheels
5.	The component that connects the steering rack to the knuckles is
Option A:	Tie rod
Option B:	Sector gear
Option C:	Pivot
Option D:	Spline
6.	The combined angle is the sum of
Option A:	Camber and Castor
Option B:	Castor and SAI
Option C:	Camber and SAI
Option D:	Camber and toe in
7.	The correct flow of power through the drive train is
Option A:	Engine drive shafts, clutch, main shaft, counter shaft, final driven gear, wheels
Option B:	Engine clutch, main shaft, counter shaft, final driven gear, drive shafts, wheels
Option C:	Engine clutch, counter shaft, main shaft, final driven gear, drive shafts, wheels
Option D:	Engine main shaft, counter shaft, clutch, final driven gear, drive shafts, wheels

8.	_____ type of wheel cannot be used in tubeless tyre
Option A:	Disk wheel
Option B:	Wire wheel
Option C:	Light alloy wheel
Option D:	Composite wheel
9.	Damper in an automobile is used to
Option A:	Absorb the energy
Option B:	Dissipate the energy
Option C:	Release the energy
Option D:	Increase the energy
10.	In passenger car Four wheel drive vehicle has _____ differential
Option A:	One
Option B:	Two
Option C:	Three
Option D:	Four

Q2.	Solve any Two Questions out of Three	10 marks each
A	Describe with neat sketch multi-plate clutches	
B	Explain the construction and working of Tandem Master cylinder	
C	What is the necessity of Gear box? Explain sliding mesh gear box with neat sketch.	

Q3.	Solve any Two Questions out of Three	10 marks each
A	Stating the requirements of starting motors, explain standard Bendix drive.	
B	Describe various battery ratings for Lead Acid Battery	
C	Explain Open, semi-integral and Integral Bus structure.	

Q4.	Solve any Two Questions out of Three	10 marks each
A	Describe the construction and working of McPherson Strut suspension system	
B	Explain different types of front axles and their constructions.	
C	What do you mean by Electronic stability Program(ESP)? Explain.	
