S. B. Roll. No.....

AUTOMOBILE ENGINEERING
6th Exam/Mech./5355/Nov'24
(For 2018 Batch Onward)

Duration: 3Hrs. **M.Marks:75**

SECTION-A

Q1. a) Fill in the blanks. **15x1=15**

i. There are not any valves in _____stroke engine.
ii. The breaks convert kinetic energy into _____energy.
iii. During suction stoke of a CI engine _____is sucked in the cylinder.
iv. In order to complete a cycle in four stroke SI engine, cam rotates _____times.
v. In constant mesh gearbox, all the gears on the lay shaft are in _____with the gears on the main shaft.
vi. The distance between front wheel and rear wheel is known as_____
vii. _____process removes air from the braking system.
viii. Shock absorber is also known as_____
ix. The number of negative plates in a battery cell is _____more than the positive plates.
x. Alternating current produced by the alternator is converted into direct current by means of providing _____

b) State True and False.

xi. In rear engine rear wheel drive arrangement, a propeller shaft is required.
xii. The clutch is located between the flywheel and gearbox.
xiii. The hand brake usually operates on rear wheels.
xiv. Radius rod is also known as torsion bar.
xv. Battery stores energy in electrical form.

SECTION-B

Q2. Attempt any six questions. **6x5=30**

a. What are the differences between internal combustion engines and external combustion engines?
b. Explain Antilock Braking system (ABS).
c. Explain the Ackermann and Davis steering mechanism.
d. How motor vehicles are classified?
e. What are the functions of suspension system?
f. Describe the construction details of lead acid battery.
g. Discuss the difference between a generator and an alternator.
h. Explain the fuel supply system of the diesel engine.

SECTION-C

Q3. Attempt any three questions. **3x10=30**

i. Write the comparison of MPFI with carburettor system.
ii. Describe centrifugal and semi centrifugal clutches.
iii. Explain the Ackermann and Davis steering mechanism.
iv. Draw a neat sketch of master cylinder and explain it briefly.
v. Name the different gases, emitted by the exhaust of an internal combustion engine, which are responsible for environmental pollution. Explain various factors which affect the quantity of these gases in engine exhaust.