

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

**AUTOMOBILE ENGINEERING**  
**6<sup>th</sup> Exam/Mech./5355/Jun'2022**  
**(For 2018 Batch Onwards)**

**Duration: 3Hrs.**

**M.Marks:75**

**SECTION-A**

**Q1. Give answer in one line.**

**15x1=15**

- a. What is chassis?
- b. Name the two types of axles used in automobiles.
- c. What is the function of clutch?
- d. Define Rack and Pinion.
- e. What is a camber?
- f. What is the function of a brake drum?
- g. Write about leaf spring.
- h. Differentiate spring and shock absorber.
- i. What type of springs is used in rear end suspension?
- j. Write the use of battery in automobiles.
- k. What is hydrometer?
- l. Which material is used to make radiator tubes?
- m. Write a use of regulator?
- n. Expand ABS.
- o. Name any source of pollutant in automobiles?

**SECTION-B**

**Q2. Attempt any six questions.**

**6x5=30**

- i. Explain briefly the front engine rear wheel drive.
- ii. Write a short note on anti-lock braking system.
- iii. What is specific gravity of electrolyte? Explain effect of temperature on specific gravity.
- iv. Draw neat labelled sketch of Telescopic Shock Absorber.
- v. Explain the need and working of catalytic converter.
- vi. What is function of gear box? Enlist different types of gear boxes used in an automobile?
- vii. Explain Ackermann steering mechanism?

**SECTION-C**

**Q3. Attempt any three questions.**

**3x10=30**

- a. Explain the function and principle of steering system.
- b. Discuss the construction and working of an alternator.
- c. Why gear boxes are needed in automobiles? Explain the working of synchromesh type gear box with help of neat sketch.
- d. Explain the construction and working of hydraulic brakes. Describe construction details and working of master cylinder with diagrams.
- e. Explain the construction of lead acid battery.