

AUTOMOBILE ENGINEERING
UNIT-1

Part A

1. What are the functions of frame?
2. List out the various materials used in the construction of chassis frames.
3. Write down any two main sections of vehicle construction.
4. What are two types of vehicle suspensions?
5. What loads are coming to axle?
6. What is the function of gearbox?
7. Why you need a gear box?
8. Name the different kind of resistances to vehicle motion
9. Why is the frame narrow at front?
10. List out the various materials used in the construction of vehicle body
11. Why are the side members of the frame upswept at two places?
12. What is the function of a bumper?
13. What are the stresses to which the frame members are subjected to?
14. Name few components of engine.
15. What are the types of frames?

Part B

16. Compare the merits and demerits of a frameless construction with those of the conventional framed construction. (16)
17. Explain the following terms:
(i) Load distribution in frames (ii) Frame types with sketch (iii) Frame materials (iv) Frame testing. (16)
18. Explain the construction of various frames used in automobiles with neat sketch. (16)
19. (i) Define chassis, frame, body and suspension. (4)
(ii) Explain briefly about structure of passenger car with neat sketch. (12)
20. (i) Discuss the various resistances to vehicle motion (8) (ii) Discuss the need of a gear box. (8)
21. Explain any five components of engine with neat sketch. (16)
22. Explain the materials used to manufacture the components of engine (16)
23. Explain briefly the various types of chassis construction with suitable diagrams. (16)
24. Discuss briefly the details of a two wheeler frame. (16)
25. Explain integral and semi integral type vehicle body construction. (16)