Register No.:

378

October 2017

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.

(2) Answer division (a) or division (b) of each question in PART-C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. State the types of stub axle.
2. What are the reasons for clutch slip?
3. What is an overdrive? Write its advantages.
4. What are the advantages of two piece propeller shaft?
5. What are the advantages of hypoid gear in final drive?
6. State the types of steering gear box.
7. What are the advantages of independent suspension?
8. State the advantages of anti-lock brake system.

PART – B

9. What are the functions of chassis frame?
10. Compare wet clutch and dry clutch.
11. What are the various resistance offered to the motion of the vehicle?
12. What is final drive? State its function.
13. What is non-slip differential?
14. Explain the term castor.
15. State the functions of suspension system.
16. What is meant by exhaust brake system?

PART – C

17. (a) Explain the front axle construction with a neat sketch.

(Or)

(b) Discuss full floating rear axle support in detail with a neat sketch. State its advantages and disadvantages.

18. (a) Explain the construction and working of multi-plate clutch with a simple sketch.

(Or)

(b) Describe the construction and working of transfer box with a neat sketch.

19. (a) Describe the construction and operation of torque tube rear axle drive with a neat sketch.

(Or)

(b) Discuss in detail the construction and operation of differential unit with a neat sketch.

20. (a) Describe the construction and working of rack and pinion type steering gear box with a neat sketch.

(Or)

(b) Explain the construction and operation of telescopic type shock absorber with a neat sketch.

21. (a) Explain the working of air brake system with a neat layout.

(Or)

(b) Explain the construction of tubeless tyres with a neat sketch.
