373 Register No.: [ ]

April 2024

Time – Three hours
(Maximum Marks: 100)

[N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. Mention the merits and demerits of 2 stroke SI engine.
2. Enlist the main causes for producing hydrocarbon emission from SI engine.
3. What is meant by DTSI?
4. Why the starting motor is designed to exhibit high torque?
5. What are the causes and remedies for clutch slip?
6. Specify three principle dimensions of a roller chain used in two wheeler.
7. Write a brief note on caliper shoes.
8. List the difference between proof tyre and liquid filled tyre.
9. State the objectives of maintenance of two and three wheeler.
10. Define Wheel base.

[Turn over.....

PART – B

11. (a) (i) Explain the side valve mechanism used in internal combustion engine. (7)
(ii) Describe symmetrical port timing with a suitable sketch. (7)

(or)

(b) With a suitable sketch explain the construction and working of exhaust gas recirculation (EGR).

12. (a) (i) Describe the direct drive mechanism used in starting system with a suitable sketch. (7)
(ii) Explain the construction and working of digital speedometer. (7)

(or)

(b) Explain the self starting system of two and three wheeler with a neat sketch.

13. (a) (i) With the aid of neat sketch, explain the shaft drive system used in three wheeler. (10)
(ii) What are the requirements for a good clutch? (4)

(or)

(b) Explain the construction and working of CVT with neat sketches.

14. (a) Explain the chain drive system of two wheeler with neat sketch. State its merits and demerits.

(or)

(b) (i) Discuss dual leading shoe drum brake system with a neat sketch.(7)
(ii) Draw a neat sketch, label the parts of tubed tyre and explain it.(7)

15. (a) (i) Explain about servicing and maintenance of motor cycle.

(or)

(b) Explain the construction of three wheeler with a layout diagram.
