193 Register No.:

October 2018

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. What is meant by engine capacity?
2. What is piston clearance? Why is it necessary?
3. What are the factors affecting detonation?
4. What is PGM FI?
5. What are the stages of combustion in a Diesel engine?
6. What is turbo charger?
7. Name any three tubular type radiator cores.
8. What is PCV? What purpose does it serve?

PART – B

9. What is piston displacement and how is it calculated?
10. Distinguish between the crank case and the oil pan.
11. List the various methods of expansion control in pistons.
12. What are the defects in a simple carburettor.
13. Show the layout of fuel supply system in Diesel engines, naming all components.
14. Explain the pintaux nozzle with a neat sketch.
15. Draw a neat diagram of an oil cooler and name its different parts.
16. What is octane number? Explain its importance.

[Turn over.....

PART – C

17. (a) Explain with suitable sketches, the construction and working of four stroke Diesel engine.

(Or)

(b) (i) Explain briefly about separately scavenged engines.
(ii) Draw and explain the typical port timing diagram of a two stroke Petrol engine.

18. (a) Explain with neat sketch the construction and operation of an over head valve mechanism. State the merits.

(Or)

(b) (i) What are the advantages of using a sodium cooled valve?
(ii) With the help of neat sketches, explain any two types of mufflers used in automobiles.

19. (a) Explain the construction and working of SU electrical fuel pump with a neat sketch.

(Or)

(b) Explain the starting circuit and acceleration circuit of a solex carburettor with neat sketches.

20. (a) What is Diesel knock? Explain the different methods of controlling Diesel knock.

(Or)

(b) With the help of a neat sketch, explain the construction and working of a pneumatic governor used in Diesel engine.

21. (a) Explain the construction and working of pump assisted water cooling system with a neat sketch.

(Or)

(b) With neat sketches, explain the working of a gear type and rotor type oil pumps.
