

Code No: **R1942242**

R19

Set No. 1

IV B.Tech II Semester Regular Examinations, April– 2023

VEHICLE MAINTENANCE

(Automobile Engineering)

Time: 3 hours

Max. Marks: 75

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT I

- 1 a) Elaborate the step-by-step procedure of dismantling of an engine of a car for overhauling. [7]
b) Discuss contents in a typical maintenance log sheet of an automobile [8]
(OR)
- 2 a) Describe in detail about the special tools used for overhauling of an engine. [7]
b) Discuss about the preparation of maintenance check list and explain the various forms used for vehicle maintenance [8]

UNIT II

- 3 a) (i) Explain the inspection and servicing of both fuel and air filters. [7]
(ii) What are the parts of an engine fuel system that require regular maintenance? [7]
b) Discuss the major cooling system, fuel injection system and lubricating system problems with respect to causes and remedies. [8]
(OR)
- 4 a) Explain the need of anti-corrosion and anti-freezing and about anti-corrosion and anti-freezing solutions [7]
b) What is meant by calibration of fuel injection pump? Explain calibration of FIP and tuning of engine for optimum fuel supply. [8]

UNIT III

- 5 a) i) How do you carry over maintenance work on DC generator? [7]
ii) Explain any four problems experienced in starter motor with their causes and remedies. [7]
b) What are the various stages involved in maintenance of a charging system? [8]
(OR)
- 6 a) Describe the process to be followed in [7]
(i) Servicing of starter system of a car.
(ii) Head Light Alignment [7]
b) What is the function of battery? Explain the different testing methods for battery. [8]



UNIT IV

- 7 a) Explain different problems that may affect the performance of a hydraulic braking system with drum brakes. [7]
b) Describe the steps and stages involved in steering alignment and track alignment? [8]

(OR)

- 8 a) Briefly explain various troubles that may occur in a single plate dry type clutch system and bring out their causes [7]
b) Mention in detail about the steps involved in servicing of clutch, gear box and propeller shaft. [8]

UNIT V

- 9 a) Explain the different methods used for wheel balance. Describe two methods used to repair a tubeless tyre. [7]
b) Describe process of wheel alignment that is carried out using computerized wheel alignment and explain the pre-alignment checks to be carried out before the wheel alignment. [8]

(OR)

- 10 a) Discuss about tinkering, soldering, polishing, and painting process for the automotive bodies [7]
b) Discuss various types of troubles in connection with automobile tyres and to improve life of the tyre. [8]

