

- Q.24 Explain briefly the phenomenon of “Diesel Knock”.
 Q.25 Explain briefly supercharging of S.I. engine.
 Q.26 Describe with neat diagram open cycle gas turbine.
 Q.27 What are the main sources of pollutants from diesel engine?
 Q.28 Explain briefly Crank case ventilation and exhaust gas re-circulation systems.
 Q.29 Draw the simplified wiring circuit for lighting system of car.
 Q.30 Explain the wiring circuit for the lighting system.
 Q.31 Explain briefly Anti -lock Braking system.
 Q.32 Explain various processes of psychrometry.
 Q.33 Name the various lines drawn on the psychrometric chart.
 Q.34 Explain simple vapour compression cycle with the help of neat sketch.
 Q.35 Describe the various components of an automobile air-conditioning system.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
 Q.36 How injection system are classified? Explain in detail.
 Q.37 Discuss the construction and working of alternator.
 Q.38 Explain the working principle of hybrid car in detail.

No. of Printed Pages : 4
Roll No.

157952

5th Sem / Branch : Mech. Engg. (Auto Mobile)
Sub. : Automobile Engineering - I

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Petrol engine works on
 a) Diesel Cycle b) Otto Cycle
 c) Dual Cycle d) None of the above
 Q.2 The compression ratio used in high-speed C.I. engine is of the order of
 a) 4 b) 8
 c) 12 d) 20
 Q.3 Which of the following is not a type of nozzle?
 a) Pintaux nozzle b) Pintle nozzle
 c) Single hole nozzle d) Surface nozzle
 Q.4 Octane number is measure of
 a) Viscosity of fuel
 b) Auto ignition temperature
 c) Ignition quality
 d) Calorific value of fuel

- Q.5 Degree of supercharging is chiefly limited in I.C. engine by
 a) Vibrations b) Shocks
 c) Knock d) Damping
- Q.6 Advantages of CNC are
 a) Economical
 b) Lead free
 c) Reduced harmful emission
 d) All of the options
- Q.7 The catalytic converter is used to control
 a) B.P. b) I.P.
 c) Oxides of nitrogen d) Hydrocarbon
- Q.8 Which of the following types of car batteries are generally used in India?
 a) Lead acid battery
 b) Dey battery
 c) Nickel cadmium battery
 d) Nickel iron battery
- Q.9 Which factors affects vehicle safety?
 a) Poor condition of the vehicle
 b) Weather
 c) Driver
 d) All of the above
- Q.10 The value of maximum possible relative humidity is
 a) 1 b) 2
 c) 3 d) None of the above

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Induction swirl results in easier starting if the C.I. engine (True/False)
- Q.12 Compression ignition engine was developed by _____
- Q.13 _____ Compressor is commonly used for supercharging.
- Q.14 Write the full form of CNG and LPG.
- Q.15 What was the main pollutants emitted by petrol engine?
- Q.16 What is the use of tail lights?
- Q.17 What is purpose of seat belt?
- Q.18 Define relative humidity.
- Q.19 Write the full form of DBT and WBT.
- Q.20 Name the refrigerant which is used in an automobile air conditioning system.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Explain the difference between diesel engine and petrol engine.
- Q.22 What are the main functions of nozzle?
- Q.23 Explain briefly combustion phenomenon in C.I. Engine.