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**4th Sem / Automobile Engineering**  
**Subject:- Auto Engine - 1**

Time : 3Hrs.    M.M. : 100

**SECTION-A**

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

- Q.1 The stroke of an engine is the  
a) Volume of the cylinder  
b) Length of the connecting rod  
c) Internal diameter of the cylinder  
d) Distance between T.D.C. and B.D.C
- Q.2 The capacity of a battery is usually expressed in terms of  
a) Volts                                      b) Amperes  
c) Weight                                      d) Ampere hours
- Q.3 The connecting rods are generally made of \_\_\_\_\_ shaped cross-section.  
a) I    b) C  
c) L    d) H
- Q.4 The instrument used to check specific gravity of acid in a battery is  
a) Hydrometer                              b) Hygrometer  
c) Anemometer                              d) Multimeter

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- Q.5 The diesel engine works on  
a) Otto cycle                              b) Carnot cycle  
c) Diesel cycle                              d) Rankine cycle
- Q.6 The component in the radiator of an automobile that increases the boiling point of water is  
a) Drain plug                              b) Water jacket  
c) Vacuum valve                              d) Pressure cap
- Q.7 If the engine coolant leaks into the engine oil, then engine oil  
a) Appears milky                              b) Become foamy  
c) Turns black                              d) None of these
- Q.8 The connecting rod connects the piston and the  
a) Cylinder head                              b) Cylinder block  
c) Camshaft                              d) Crankshaft
- Q.9 The piston compression rings are made of  
a) Cast iron                              b) Steel  
c) Aluminium                              d) Bronze
- Q.10 The main task of a battery in automobiles is to  
a) Supply electricity to the alternator  
b) Act as a reservoir or stabilizer of electricity  
c) Supply electricity to the vehicle's electrical system at all times while the engine is running  
d) Supply a large amount of power to turn the starter motor when the engine is being started

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## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The connecting rod is located between the piston and the \_\_\_\_\_
- Q.12 The thirdstroke of four stroke engine is known as \_\_\_\_\_
- Q.13 The connecting rod has \_\_\_\_\_ and \_\_\_\_\_ end.
- Q.14 Write function of piston?
- Q.15 What is the function of differential?
- Q.16 Define F.H.P?
- Q.17 To biggest part of an engine is called \_\_\_\_\_.
- Q.18 What is the full form of B.H.P?
- Q.19 What is the function of battery in ignition system?
- Q.20 What is the function of antifreeze solution?

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Differentiate between battery and magneto ignition system. Give five differences only? (CO2)
- Q.22 Calculate compression ratio if Swept volume is 2800 cm<sup>3</sup> and clearance volume is 250 cm<sup>3</sup>? (CO3)
- Q.23 What are the advantages of force feed lubrication system over splash lubrication system write any five? (CO4)
- Q.24 Analyze any five properties of lubricants? (CO4)

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- Q.25 What is the importance of MPFI system engine? (CO3)
- Q.26 What do you understand by gravity fuel feed system? (CO2)
- Q.27 Differentiate between Distributorless and Electronic ignition system? (CO2)
- Q.28 What is the nessesity of cooling system? (CO3)
- Q.29 Analyze the effect of compression ratio on petrol and diesel engine? (CO4)
- Q.30 List any five component of ignition system and mention their uses? (CO3)
- Q.31 Analyze need of electronic ignition system? (CO4)
- Q.32 Differentiate between carburetion and MPFI system? (CO2)
- Q.33 Define TDC, BDC and compression ratio? (CO1)
- Q.34 How electric fuel feed pump works? (CO3)
- Q.35 Analyse any five defects and their remedies in fuel supply system? (CO4)

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Analyze the advantages and disadvantages of diesel engine over petrol engine? (CO4)
- Q.37 Describe the working of electronic ignition system? (CO3)
- Q.38 Explain construction and working of water cooling system with neat diagram? (CO3)

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