

- Q.27 Describe the working of Battery ignition system.
- Q.28 Explain the working of a Carburetor.
- Q.29 Classify the various types of Lubrication system.
- Q.30 Write the procedure and outcome of a Morse Test.
- Q.31 Write the various functions of Engine components.
- Q.32 Explain any one method of testing of I.C. Engines.
- Q.33 Explain the working of AC Mechanical fuel pump.
- Q.34 Write the significance of Mechanical, Volumetric and thermal efficiency.
- Q.35 Enumerate the types of sensors used in MPFI system.

#### **SECTION-D**

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

- Q.36 Explain the working of water cooling system used in automobiles.
- Q.37 Give comparison between Spark ignition and Compression ignition engine.
- Q.38 Explain the working of Multi point fuel injection (MPFI) system used in spark ignition system.

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**4th Sem / Branch : Auto  
Subject:- Auto Engine 1**

Time : 3Hrs.

M.M. : 100

#### **SECTION-A**

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

- Q.1 Morse test can be conducted for
- Multicylinder engines
  - Petrol engines
  - Diesel engines
  - All of these
- Q.2 A spark plug gap is kept from
- 0.3 to 0.7mm
  - 0.5 to 10mm
  - 0.1 to 0.3mm
  - None of these
- Q.3 Which of the following does not relate to a compression ignition engine?
- Fuel pump
  - Governor
  - Carburettor
  - Fuel injector
- Q.4 Which of the following does not relate to a spark ignition engine?
- Fuel injector
  - Ignition coil
  - Spark plug
  - Carburettor

- Q.5 The air-fuel ratio of the petrol engine is controlled by  
a) Fuel pump                  b) Governor  
c) Injector                  d) Carburettor
- Q.6 During Idling, a petrol engine requires \_\_\_\_\_ mixture.  
a) Lean                  b) Chemically correct  
c) Rich                  d) None of these
- Q.7 The theoretically correct mixture of air and petrol is  
a) 10:1                  b) 20:1  
c) 15:1                  d) 5:1
- Q.8 A stoichiometric air-fuel ratio is  
a) Lean mixture  
b) Rich mixture  
c) Chemically correct mixture  
d) None of the above
- Q.9 The ratio of the brake power to the indicated power is called  
a) Mechanical efficiency  
b) Thermal efficiency  
c) Volumetric efficiency  
d) Indicated thermal efficiency
- Q.10 Waterjacket in an I.C. engine is used for:  
a) Lubrication                  b) Cooling  
c) Both a and b                  d) Neither a nor b

## SECTION-B

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

- Q.11 Define compression ratio.  
Q.12 Write the use of thermostat.  
Q.13 Write any antifreeze solution used in automobiles.  
Q.14 Define swept volume.  
Q.15 Write full form of I.C. engine.  
Q.16 Define Brake power.  
Q.17 Name two lubricants used in automobiles.  
Q.18 Write the use of Mufflers.  
Q.19 Give the necessity of fuel filter in an engine.  
Q.20 Define I.H.P?

## SECTION-C

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

- Q.21 Give classification of Engines used in automobiles.  
Q.22 Explain the working of 4 stroke engines.  
Q.23 Give functions of cooling system used in automobiles.  
Q.24 Write the characteristics of Antifreeze solutions.  
Q.25 Give two advantages and two disadvantages of Air cooling system.  
Q.26 Give classification of fuel feed system used in spark ignition systems.