

- Q.27 What are the different types of Air Cleaner?
- Q.28 How would you improve the properties of lubricants?
- Q.29 What is the need and importance of alternate fuels in engines?
- Q.30 What are the various parameters of testing?
- Q.31 What are the different types of piston rings and their functions?
- Q.32 Describe different types of Lubrication systems.
- Q.33 What is wankle engine? Explain its working.
- Q.34 Explain the working of four stroke cycle diesel engine.
- Q.35 Explain the different types of Fuel Filters.

#### **SECTION-D**

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

- Q.36 Explain the working of Fuel Injection System along with its different components and their functions.
- Q.37 Explain the different methods of engine cooling in detail. Also explain the defects in cooling system and their rectification.
- Q.38 What is the importance of testing of I C Engines? Explain any one test for testing an IC Engine in detail.

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**4th Sem / Agri Engg.  
Subject:- I.C Engine / Farm I.C Engines**

Time : 3Hrs.                                M.M. : 100

#### **SECTION-A**

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

- Q.1 Thermal efficiency of a diesel engine varies between  
 a) 25-28%                                b) 28-32%  
 c) 32-35%                                d) 38-45%
- Q.2 The operation of forcing additional air under pressure in the engine cylinder is known as  
 a) Scavenging                              b) Turbulance  
 c) Super Charging                        d) Pre-ignition
- Q.3 In an internal combustion engine the temperature inside the engine cylinder ranges between  
 a) 750-1000°C                            b) 1000-1200°C  
 c) 1200-1400°C                        d) 1650-2200°C
- Q.4 Morse test is conducted on  
 a) Single cylinder engines  
 b) Slow speed engines  
 c) High speed engines  
 d) Multi-cylinder engines

- Q.5 The diameter of engine cylinder is called  
a) Bore                    b) Stroke  
c) Swept volume        d) Compression ratio
- Q.6 The power delivered by the engine and available at the end of crank shaft is  
a) Belt power            b) Brake power  
c) Drawbar power        d) Frictional power
- Q.7 The ratio of output in the form of useful mechanical power to the power value of fuel consumed.  
a) Mechanical Efficiency  
b) Thermal Efficiency  
c) Volumetric Efficiency  
d) Brak mean thermal Efficiency
- Q.8 The device to remove dirt from fuel oil  
a) Fuel filter            b) Turbocharger  
c) Air cleaner            d) Air injection
- Q.9 The device to keep battery charged and to supply current for ignition, light and other electrical accessories  
a) Ignition switch      b) Dynamo  
c) Condenser            d) Spark plug
- Q.10 Connecting rod of a tractor engine is made of  
a) Cast Iron            b) Cast Steel  
c) Brass                  d) Bronze

## SECTION-B

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

- Q.11 Define additives.  
Q.12 Define piston displacement.  
Q.13 What is the use of thermostat valve?  
Q.14 What is the purpose of Lubrication?  
Q.15 Give the function of Governer.  
Q.16 What is the use of spark plug.  
Q.17 Write the function of connecting rod.  
Q.18 What is the purpose of engine cooling.  
Q.19 Define Compression ratio.  
Q.20 Give the use of pressure relief valve.

## SECTION-C

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

- Q.21 How would you classify IC Engines?  
Q.22 What are the pre-starting checks for an IC Engine?  
Q.23 List the different components of lubricating system.  
Q.24 What are different components of an air intake system?  
Q.25 Compare the petrol engine and diesel engine.  
Q.26 Explain the working of Diesel Cycle along with diagram.