

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain any two tests used for testing of an IC engine in detail. (CO5)
- Q.24 What are the various components for water cooling system of diesel engine ? Also write down their function with importance. (Co1)
- Q.25 Discuss the operations of a Diesel Cycle in detail with suitable P-V diagram. (CO2)

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**3rd Sem / Agri. Engg.**

**Subject : IC Engine**

Time : 3 Hrs.

M.M. : 60

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The power available at the crank shaft is called \_\_\_\_\_ (CO1)
- a) Brake power                      b) Frictional power  
c) Indicated power                  d) PTO power
- Q.2 In which type of engine, heat resulting from compressing air that is supplied for combustion (CO2)
- a) Otto cycle engine  
b) Spark Ignition engine  
c) Diesel engine  
d) External combustion engine
- Q.3 The temperature, to which oil is heated before the oil vapour ignites, when a flame is passed over it, is called (CO3)
- a) Ignition point                      b) Flash point  
c) Burning scale                        d) Pour point

- Q.4 The compression ratio of SI engine varies from \_\_\_\_\_ (CO1)
- a) 10:1 to 12:1                      b) 6:1 to 10:1  
 c) 4:1 to 8:1                            d) 12:1 to :1
- Q.5 In four stroke cycle engine the camshaft runs at \_\_\_\_\_ (CO1)
- a) Four times                            b) Double  
 c) One quarter                          d) Half
- Q.6 Thermostat valve is used in: (CO4)
- a) Air cooled engine    b) Water cooled engine  
 c) Steam engine                        d) All of these

### SECTION-B

- Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)
- Q.7 Bore is \_\_\_\_\_ of engine cylinder. (CO1)
- Q.8 ASTM stands for \_\_\_\_\_. (CO5)
- Q.9 Viscosity of lubrication oil is measured by \_\_\_\_\_. (CO4)
- Q.10 Piston displacement is also known \_\_\_\_\_. (CO1)
- Q.11 The thermal efficiency of CI engine is \_\_\_\_\_ than SI engine. (CO2)
- Q.12 Crankshaft is made up of \_\_\_\_\_. (Co1)

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### SECTION-C

- Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)
- Q.13 Write down the various classifications of IC engines. (CO1)
- Q.14 Discuss about P-V diagram of an Otto Cycle along with its processes. (CO2)
- Q.15 Explain the various functions of lubricant. Also write down two properties of good lubricant.(CO4)
- Q.16 Explain the different types of alternate fuels used in IC engine. (CO3)
- Q.17 Differentiate between petrol engine and diesel engine. (CO1)
- Q.18 Explain the working of various components of lubrications system. (CO4)
- Q.19 Discuss about various parameters of testing of an engine. (CO5)
- Q.20 Draw the heat balance sheet performance of an engine. (CO5)
- Q.21 What is the working of different components of fuel system in diesel engine. (CO3)
- Q.22 Describe the various methods of reducing the pollution in IC engine. (CO5)

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