Q.27 How would you classify an Internal Combustion engine?

Q.28 What are the objectives of lubrication?

Q.29 What are different types of alternate fuels used in engines?

Q.30 Describe the splash system of Lubrication.

Q.31 Explain the working of Rotary/Wankel engine.

Q.32 Describe three types of nozzles used in fuel injection system.

Q.33 What are the parameters to be considered for testing of IC engines?

Q.34 Differentiate between fuel System and Air Intake System.

Q.35 Explain the working of Prony brake dynamometer.

SECTION-D

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

Q.36 What is the importance of testing of IC Engines? Explain any one test for testing an IC Engine in detail.

Q.37 What are different methods of cooling an I.C engine? Also explain the defects in cooling system and their rectification.

Q.38 Explain the working of Fuel Injection System along with its different components and their functions.

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

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The ratio of cylinder volume to clearance volume is called

a) Swept volume b) Crank radius
c) Compression ratio d) Crank throw

Q.2 Piston compression rings are made of_____

a) Cast steel b) Cast iron
c) Aluminium alloy d) Copper

Q.3 The diesel engines are _____ combustion engines.

a) Internal b) External
c) Steam d) Fossil fuel

Q.4 The pump used to supply the fuel from fuel tank to fuel injection pump is called

a) Feed pump b) Fuel injection pump
c) Gear pump d) Rotary pump

Q.5 In water cooling system, the thermostat operates at about

a) 160 °C b) 80 °C

c) 40 °C d) 25 °C

Q.6 During combustion inside the cylinder, the temperature rises above

a) 2000-3000 °C b) 1500-2000 °C

c) 1000-1200 °C d) 500- 600 °C

Q.7 Crankcase ventilation is the process of removing

a) Water vapours b) Fuelvapours

c) Combustion gases d) All of these

Q.8 The specific fuel consumption of a diesel engine as compared to that for petrol engine lies in the range of

a) Lower

b) Higher

c) Same for same output

d) None of the above

Q.9 The power generated in the engine cylinder and received by piston

a) Brake power b) Indicated power

c) Belt power d) PTO power

Q.10 Compression ratio of a Petrol engine lies in the range of

a) 7 to 10 b) 14 to 20

c) 2 to 4 d) None of the above

SECTION-B

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

Q.11 Define specific fuel consumption

Q.12 Define additives.

Q.13 Define Piston displacement/ Swept volume.

Q.14 What is the use of thermostat valve?

Q.15 What is the purpose of cooling an engine?

Q.16 Write the function of oil pressure relief valve.

Q.17 Give the function of fuel filter.

Q.18 What is the function of crankshaft?

Q.19 What is the function of oil ring?

Q.20 Write the function of connecting rod.

SECTION-C

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

Q.21 Compare the petrol engine and diesel engine.

Q.22 Explain the otto cycle along with diagram.

Q.23 What are the different types of Air cleaner?

Q.24 What are the different types of piston rings and their functions?

Q.25 List different components of Lubrication system along with their function.

Q.26 Describe three types of lubricants.