Q.27 What are the common sources of contamination of oil?

Q.28 Explain Froud momentum theory.

Q.29 What are the various essential characteristics of engine oil?

Q.30 What is the method to measure fuel flow?

Q.31 Describe the working of thermocouple.

Q.32 What are the various control components for feathering of propellers?

Q.33 Differentiate between Propeller and Jet Engine performance.

Q.34 Explain the use of magneto.

Q.35 How are electrical resistance thermometers used?

SECTION-D

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

Q.36 What are the various faults that can come up in a typical engine system? Mention ways to cool the engine.

Q.37 Describe the working of fuel system of aircraft piston engine and explain the various components. How the fuel pressure is measured?

Q.38 Explain the working of propellers and their control system. Describe the working of carburetor.

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4th Sem / Aircraft Maintenance
Subject:- Aircraft Reciprocating Engine

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The timing of injection has to be advanced as the speed_____

a) increases b) stables
c) decreases d) none of the mentioned

Q.2 Turboshaft engines are used primarily for_____

a) UAVs b) Commercial aircrafts
c) Cars d) Helicopters

Q.3 Which instrument is used for adjusting the ignition timing?

a) Accurate clock b) Tachometer
c) Stopwatch d) Stroboscopic light

Q.4 By adding which of the following material to aluminium alloy piston slap can be avoided?

a) Silicon b) Zinc
c) Copper d) Lead

Q.5 The temperature inside the cylinder can be measure by _____

a) Thermocouple
b) Pyrometer
c) Mercury thermometer
d) None of the above

Q.6 Fuel system includes_____
a) fuel tanks, fuel lines, fuel pump, etc
b) Valves
c) Jettisone
d) All of the above

Q.7 The diameter of piston is called_____
a) piston b) bore
c) stroke d) none of the mentioned

Q.8 The use of supercharger help in ?
a) Increasing power of the engine
b) Increasing efficiency of the engine
c) None of the above
d) Both a and b

Q.9 Which among the following is provided on the pistol in a two-stroke engine to increase the compression ratio?
a) Flat spot b) Deflector
c) Damper d) Nozzle

Q.10 How the propeller is controlled?
a) Through cyclic Pitch change
b) Through collective pitch change
c) Both a and b
d) None of the above

SECTION-B

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

Q.11 What is the efficiency of piston engine compared to jet engines?

Q.12 What are different propellers used?

Q.13 Why feathering of propellers is done?

Q.14 How are the faults identified in a typical engine system?

Q.15 Where are tachometers used for?

Q.16 What is the function of carburetor?

Q.17 Where are different pressure measuring instruments?

Q.18 What is supercharger?

Q.19 What is pitch of propeller?

Q.20 What is the main characteristics of aviation fuel?

SECTION-C

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

Q.21 Describe the function of propellers?

Q.22 What are electrical resistance thermometers?

Q.23 What are the different types of aviation fuels?

Q.24 What are the methods of checking contamination of fuel?

Q.25 Describe the use of supercharger?

Q.26 Explain the working cooling system of and aircraft piston engine.