Q.26 How does a fire detection system work?

Q.27 What are the various methods used to check contamination in fuel?

Q.28 What are the different types of engine starters?

Q.29 What is the method for measuring fuel quantity?

Q.30 Explain the feathering of propellers and its requirement.

Q.31 What are various engine instruments?

Q.32 What is the method of cooling in an aircraft engine?

Q.33 What are the various types of aircraft temperature measuring devices?

Q.34 What are the various faults in engine system?

Q.35 Explain the engine fire extinguishing process in an aircraft.

SECTION-D

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

Q.36 Explain the thermodynamics of two and four stroke engines? How the propellers are connected to these engines?

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 What are the factors affecting engine performance ? Describe different types of propellers.

Roll No. .....

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 Which one is more efficient ?

a) Two stroke engine b) Four stroke engine

c) Both are same d) Cannot say

Q.2 The distance between TDC and BDC is called_____

a) piston b) bore

c) stroke d) none of the mentioned

Q.3 IC engine are cooled by ?

a) Water b) Coolant

c) Ambient Air d) Bleed air

Q.4 The thrust developed the propeller is controlled by

a) Pitch and speed b) Speed only

c) Pitch only d) Throttle only

Q.5 Which of the following is not considered while deciding the optimum firing order of the engine?

a) Engine vibration

b) Engine cooling

c) Development of the backpressure

d) Engine configuration

Q.6 Supercharge is used to?

a) Increase the inlet pressure

b) Reduce inlet pressure

c) Increase inlet temperature

d) None of the above

Q.7 What is related to propeller feathering?

a) reduction in drag b) Engine failure

c) None of the above d) Both a and b

Q.8 Indicated power of a 4-stroke engine is equal to_____

a) 4pLAN b) pLAN/2

c) pLAN d) 2pLAN

Q.9 The timing of injection has to be advanced as the speed _____

a) increases b) stables

c) decreases d) none of the mentioned

Q.10 When flying at high altitudes,

a) air is of less density

b) air exerts less drag force on aircraft

c) both of the mentioned

d) none of the mentioned

SECTION-B

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

Q.11 What is the relation between no of strokes and rpm?

Q.12 How the fire is detected in an engine?

Q.13 What are the theories for thrust calculation of a propeller?

Q.14 What is feathering?

Q.15 What is the use of superchargers?

Q.16 What are the common sources of contamination of fuel?

Q.17 What is manifold pressure?

Q.18 What are the components of ignition system?

Q.19 What are the common sources of contamination in an oil system?

Q.20 What is the role of cooling system in a piston engine?

SECTION-C

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

Q.21 What is the method of thrust control in propeller planes?

Q.22 Explain the working of superchargers?

Q.23 How is an induction of an engine done?

Q.24 Mention different ways to achieve thrust augmentation.

Q.25 What are the characteristics of Aviation fuel?