

- Q.23 How are the insite operational test of instruments done?
 Q.24 What are various types of pitot type of probes?
 Q.25 What are the different setting of Altimeter?
 Q.26 What is the installation procedure of VSI?
 Q.27 What is the procedure of replacement of aircraft instruments?
 Q.28 Explain the need for periodical inspection of Airspeed indicator and how it's done.
 Q.29 How does cylinder head temperature gauge work?
 Q.30 How is periodical inspection of pressure gauges done?
 Q.31 Explain working of a fuel flow gauge?
 Q.32 Describe the working principle of thermocouple.
 Q.33 Explain the functioning of content gauges.
 Q.34 Write a note on electrically operated instruments.
 Q.35 Classify the various instruments used in an aircraft.

Section-D

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

- Q.36 Explain the different types of instruments which are used without making a contact.
 Q.37 Explain the installation procedure and maintenance of two Aircraft instrument.
 Q.38 What is a gyro wheel and its principle? Explain various gyro-based instruments.

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**4th Sem. / Branch : Aircraft Maintenance
Subject : Aircraft Instruments**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 What is the difference between the pitot pressure and the static pressure called?
 a) Atmospheric Pressure b) Dynamic Pressure
 c) Air Pressure d) Cabin Pressure
 Q.2 What is the principle of an altimeter?
 a) Based on the Seebach Effect
 b) Average atmospheric pressure decreases linearly with altitude
 c) The forward motion through the air allows the wings to deflect air downward, producing lift obtains its lifting power using a rotating airfoil (The rotor)
 Q.3 In a sensitive altimeter, the sea-level reference pressure can be adjusted with a _____ knob.
 a) Setting b) Calibrating
 c) Adjusting d) Pressure

- Q.4 What is the position error on the airspeed indicator?
- a) Systematic error b) The residual error
 - c) Human error d) Absolute error
- Q.5 Which of the following is the value of the atmospheric pressure, used to adjust the sub-scale of a pressure altimeter?
- a) Barometric setting b) Atmospheric setting
 - c) Altimeter setting d) Altitude setting
- Q.6 The randomness of the molecules gives us _____ pressure.
- a) Stagnation b) Static
 - c) Dynamic d) Absolute
- Q.7 What is the full form of ISA?
- a) International Stationary Atmosphere
 - b) Internal Standard Atmosphere
 - c) International Standard Atmosphere
 - d) Internal Stationary Atmosphere
- Q.8 What dose the attitude indicator display?
- a) Aircraft's relation to the horizon
 - b) Aircraft's relation to the ground
 - c) Aircraft's relation to the wind flow
 - d) Aircraft's relation to the atmospheric pressure

- Q.9 Gyroscopic effect is not observed in which of the following actions performed by the ships?
- a) Rolling b) Pitching
 - c) Steering d) All of the above
- Q.10 Which of the following can replace a heading indicator?
- a) Horizontal situation indicator
 - b) Vertical situation indicator
 - c) Horizontal path indicator
 - d) Vertical path indicator

Section-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 What are different types of R.P.M. Indicators?
- Q.12 What is the importance of periodical inspection?
- Q.13 How indicator maintenance is done?
- Q.14 What is a lead test?
- Q.15 What is a Pitot Static tube?
- Q.16 How lead test is performed?
- Q.17 What is importance of periodical maintenance of instruments?
- Q.18 Mention some electrically operated instruments.
- Q.19 What is the use of temperature gauge?
- Q.20 How the artificial horizon is indicated?

Section-C

- Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)
- Q.21 Explain the process of indicator maintenance.
- Q.22 How is lead test done on an airspeed indicator?