

- Q.26 Describe position error leak test.
- Q.27 What are the different Quality System standards?
- Q.28 What is the importance of periodical inspection of instruments?
- Q.29 How is position error leak test done?
- Q.30 How does ISO9000/IS14000/AS9100- Certification mean?
- Q.31 What is the effect of hydraulic failure?
- Q.32 What are the quality system standards when it comes to manufacturing instruments?
- Q.33 How VSI is installed?
- Q.34 Write short note on operational test of instruments.
- Q.35 Explain lead test and its use?

#### **SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 What is the principle of thermocouple? Describe ASI, Altimeter, and turn & bank indicator.
- Q.37 Describe the constructional details of VSI and its working.
- Q.38 Explain the various gyro-based instruments.

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**4th Sem./Branch : AME**  
**Subject:- Aircraft Instruments**

Time : 3Hrs. M.M. : 100

#### **SECTION-A**

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

- Q.1 What are aircraft instruments?
- The various displays and dials the pilots can see inside a cockpit.
  - The devices pilots used to control the motion of the plane.
  - The parts the plane that affect the way it moves.
  - The facts about the planes position, direction etc.
- Q.2 What is the full form of IAS?
- Implied airspeed
  - Indicated airspeed
  - Incident airspeed
  - Immediate airspeed
- Q.3 Which Instrument that measures the height of an aircraft above a given pressure level.
- Airspeed Indicator
  - Altimeter
  - Heading Indicator
  - Vertical Speed Indicator

- Q.4 A pitot tube measures  
 a) Static Pressure  
 b) Dynamic Pressure  
 c) Total Pressure  
 d) Difference between static and dynamic pressure
- Q.5 The compass instrument shows the aircraft's heading relative to magnetic \_\_\_\_\_  
 a) West                    b) North  
 c) South                   d) East
- Q.6 The turn indicator indicates rotation about the \_\_\_\_\_  
 a) Horizontal axis      b) Vertical axis  
 c) Longitudinal axis    d) Diagonal axis
- Q.7 Ram air enters the system through the \_\_\_\_\_  
 a) Pitot tube            b) Static tube  
 c) Engines                d) APU Exhaust
- Q.8 TAS shows airspeed in \_\_\_\_\_  
 a) Miles per hour        b) Knots  
 c) Nautical miles        d) Kilometer per hour
- Q.9 The most common limit gage used for inspecting the hole diameter is  
 a) Snap gage            b) Ring gage  
 c) Plug gage            d) Master gage
- Q.10 For contactless body temperature measurement, advanced thermometers are used. They are based on:  
 a) Infrared radiation    b) Ultraviolet radiation  
 c) Alpha particles        d) Laser beams

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 What are different types of instruments?  
 Q.12 Name pitot-based instruments?  
 Q.13 What is a position error?  
 Q.14 What is the input in rate of climb indicator?  
 Q.15 What is the principle of operation of Altimeter?  
 Q.16 What is the use of Turn and Bank indicator?  
 Q.17 What instrument is used to measure RPM?  
 Q.18 Name three electrically operated instruments?  
 Q.19 How does temperature gauge work?  
 Q.20 What is TQM??

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What is a periodic inspection Give examples.?  
 Q.22 Explain AS9100 certification?  
 Q.23 Describe fuel flow gauge.  
 Q.24 How manifold pressure gauge works?  
 Q.25 How are constructional features checks of Airspeed Indicator done?

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