

- Q.27 What do you mean by Transformer Ratio? Give examples.
- Q.28 How and why do we cool transformers?
- Q.29 Describe carbon pile?
- Q.30 What are the different types of measuring Instruments?
- Q.31 What is Static Discharge Wick?
- Q.32 Explain any landing light circuit?
- Q.33 What are revolving field type AC generators?
- Q.34 What are the different types of Connectors?
- Q.35 Draw one aircraft electrical circuit.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the principle and types of DC motors, how do you differentiate the AC and DC motor? What are their relative fields of application?
- Q.37 Describe the important aircraft electric circuits with specifications.
- Q.38 What is a filter and various types of filters? Demonstrate one filter and its use and requirement.

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5th Sem / Branch : AME Sub.: Aircraft Electrical systems

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 A piezoelectric transducer has a _____.
a) Strain Gauge b) Thermistor
c) Quartz Crystal d) None of the above
- Q.2 Ammeter is connected in series to allow _____.
a) Limited current pass through it
b) Full current pass through it
c) Zero current
d) No voltage drop
- Q.3 What is the minimum number of conductor strands required in aircraft quality wire?
a) 19 Strands b) One stand
c) 7 Strands d) 14 Strands
- Q.4 EMF and torque produced in a DC machine are proportional to _____ and _____ respectively.
a) Armature speed and armature emf
b) Armature emf and armature speed
c) Armature current and armature emf
d) Armature speed and armature current

- Q.5 Which one of the following breakdowns occurs in the thin region?
- Avalanche
 - Zener
 - Both A and B
 - None of the above
- Q.6 The armature of a DC generator is laminated to
- Reduce the bulk
 - Provide the bulk
 - Insulate Thakur
 - Reduce the eddy current loss
- Q.7 Reason behind the rapid wear of brushes is _____.
- Abrasion from dust
 - Excessive spring pressure
 - Rough commutator bars
 - Abrasion from dust, excessive spring pressure and rough commutator bars
- Q.8 ESD is common terminology refers to _____
- Electrostatic discharge
 - Electric discharge
 - Electronic discharge
 - Elastic
- Q.9 An induction motor works with
- DC only
 - AC only
 - Both AC & DC
 - None of these
- Q.10 Active materials of a lead acid cell are
- Spongy lead
 - Led peroxide
 - Dilute H₂SO₄
 - All of the above

SECTION-B

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

- Q.11 Where is measured by a dynamometer?
- Q.12 What do you mean by lacing?
- Q.13 What is ELCB?
- Q.14 How static charge is removed?
- Q.15 What is a current limiter?
- Q.16 Which type of voltage regulator used in DC generator.
- Q.17 What is a Static inverter?
- Q.18 What is a CHT circuit?
- Q.19 How battery is rated?
- Q.20 Where is the purpose of a rectifier?

SECTION-C

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

- Q.21 Describe the working of reverse current breaker.
- Q.22 What is the purpose of twisting of wires?
- Q.23 Explain the working of DC Generator.
- Q.24 What are the differences between a Voltmeter and a Wattmeter?
- Q.25 How and where static discharge wickis used?
- Q.26 How is Paralleling of Generators done?