Q.29 How does revolving field generator work?
Q.30 What are the different types of measuring Instruments?
Q.31 What is a flap circuit?
Q.32 Explain lead acid battery.
Q.33 What are revolving field type AC generators?
Q.34 What are the different types of Connectors?
Q.35 Describe installation of Ni-Cd battery.

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 and DC generators. What are their relative fields of applications?
Q.37 Describe one important aircraft electric circuit. Explain potential xmer.
Q.38 Describe the functioning of a repulsive motor. Explain frequency meter and its applications.

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5th Sem. / AME

Subject:- 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 For single frequency value, the most sensitive detector is _____
a) tuned detector
b) vibration galvanometer
c) headphone
d) oscillator

Q.4 A capacitive transducer works on the principle of _____
a) inductance b) capacitance
c) resistance d) reluctance

Q.5 Identify the principle behind the working of an a.c. generator

a) Eddy currents
b) Faraday's law
c) Lenz's law
d) Electromagnetic induction

Q.6 For both lap and wave windings, what is the number of commutator bars equal to?

a) Slots b) Armature conductors
c) Winding elements d) Poles

Q.7 Reason behind the rapid wear of brushes is _____

a) Abrasion from dust
b) Excessive spring pressure
c) Rough commutator bars
d) Abrasion from dust, excessive spring pressure and rough commutator bars

Q.8 ESD in common terminology refers to _____

a) Electrostatic discharge
b) Electric discharge
c) Electronic discharge
d) Elastic

Q.9 An induction motor works with

a) DC only b) AC only
c) Both AC and DC d) None of these

Q.10 Active materials of a lead acid cell are

a) Spongy lead b) Lead peroxide
c) Dilute H_2SO_4 d) All of the above

SECTION-B

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

Q.11 Where is measured by a frequency meter?
Q.12 What do you mean by lacing of wires?
Q.13 What are the different safety breaker circuits?
Q.14 What is coronna threshold?
Q.15 What is the purpose of shielding?
Q.16 Which type of voltage regulator used in DC generator?
Q.17 What is a split phase motor?
Q.18 What is a CHT circuit?
Q.19 How fuel content is measured?
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 a relay.
Q.22 What are the norms for routing wire bundles?
Q.23 How the static charge is handled in airplanes?
Q.24 What are the differences between a Voltmeter and an Ammeter?
Q.25 How and where static discharge wick is used?
Q.26 How is Paralleling of Generators done?
Q.27 How the transformer Ratio is decided?
Q.28 How and why do we cool transformers?