**SUBJECT-ELECTRICAL TECHNOLOGY**

**CLASS-SECOND YEAR (AT/WT)**

**Q1.MCQ**

1. Which of the following rule is used to determine the direction of rotation of D.C motor?

1. Coloumb’s Law

2. Lenz’s Law

3. Fleming’s Right-hand Rule

4. Fleming’s Left-hand Rule

2. Which part of DC motor can sustain maximum temperature rise?

1. Armature Winding

2. Field winding

3. Slip Ring

4. Commutator

3. The ratio of starting torque to full load torque is least in

1. Differential Compound Motor

2. Shunt motor

3. Series Motor

4. Cumulative compound motor

4. The number of pole in Small Dc Motor Up to 5 H.P are

1. 2 poles

2. 4 poles

3. 8 poles

4. 10 poles

5. In DC machine the fractional pitch winding is used

1. To reduce the Harmonic in generated EMF

2. Improve Cooling

3. Increase EMF

4. To reduce the copper losses

6. Input impedance depends on \_\_\_\_\_\_\_\_\_

1.resistance

2. capacitance

3. inductance

4. voltage

7. Noise is a function of \_\_\_\_\_\_\_\_\_

1. voltage

2. current

3. bandwidth

4. frequency

8. Current can be measured effectively by making use of \_\_\_\_\_\_\_\_\_

1. d.c. voltmeter

2. a.c. ammeter

3. d.c. ammeter

4. a.c. voltmeter

9. The transformer ratings are usually expressed in.......

1.Volts

2.Amperes

3.Kw

4.Kva

10. Which of the following does not change in an ordinary transformer........

1.Frequency

2.Voltage

3.Current

4.Any of the above

11. Star/star transformers work satisfactorily when........

1.Load is unbalanced onlyα

2.Load is balanced onlyα

3.On balanced as well as unbalanced loadsα

4.None of the above

12. An air gap is usually inserted in a magnetic circuits to

1. Increase m.m.f

2. Increase the flux

3. Prevent saturation

4. None of the above

13. Permeability in a magnetic circuit corresponds to ................in an electric circuit

1. Resistance

2. Resistivity

3. Conductivity

4. Conductance

14. In a magnetic material hysteresis loss takes place primarily due to

1. Rapid reversals of its magnetisation

2. Flux density lagging behind the magnetising force

3. Molecular friction

4. It high retentivity

15. The property of a material which opposes the creation of magnetic flux in it is known as

1. Reluctivity

2. Magnetomotive force

3. Permeance

4. Reluctance

16. What happens to the MMF when the magnetic flux decreases?

1. Increases

2. Decreases

3. Remains constant

4. Becomes zero

17. If a d.c. motor is connected across a.c. supply, the motor will

1. Run at lower speed

2. Burn

3. Run at normal speed

4.Run continuously but for sparking at brushes

18. If field current of a shunt motor is changed, then

1. Torque remains constant but h.p. will change

2. Horse power remains constant but torque will change

3. Both remain constant

4. Both will change

19 Armature winding of a series motor is excited

1. Resistively 2 Conductively

3. Inductively 4 None of these

20. Speed of a d.c. motor depends upon

1. Field flux 2.Armature resistance

3. Applied voltage 4. All of these

**Q2. EXPLAIN IN DETAIL 10 MARKS**

1. Explain in detail Transformer working principle in detail.

2. Explain in detail series parallel magnetic circuit.

3. Explain in detail AC MOTOR principle and construction.

4. Explain in detail DC motor working principle and construction.

5. Explain in detail AMMETER Construction and working principle.

6. Explain in detail VOLTMETER construction and working principle.

7. Explain in detail MEGGER.

8. Explain in detail PMMC.

9. Explain in detail laws p.f of electricity.

10. Explain in detail AC and DC.

**Q.3.EXPLAIN IN SHORT 5 MARKS**

1. Explain 1-ph Principle of transformer.

2. Explain DC motor principle.

3. Write application of AC MOTOR

4. Write applications of dc motor.

5. Write difference between 1-ph and 3 ph supply system.

6. Explain KCL and kvl

7. Explain Voltege divider rule

8. Explain Universal Motor.

9. Explain stepper motor.

10. Explain digital multimeter.

**Q.4. WRITE SHORT NOTE ON 5 MARKS**

1. Megger

2. Series And Parallel Magnetic Circuit

3. Mmf And Emf

4. Difference Between Ac And Dc Supply System

5. P.F. Laws Of Electricity

6. Ammeter

7. Voltmeter

8. Magnetic Circuit

9. Ohm Meter

10.Pmmc