

Duration: 30 Mins

Total Marks: 27

Q.ID: ITISKILL17245F

1. What is the phase relationship between the applied voltage and current in the primary of a transformer with open secondary winding?

- A) Current leads voltage by 90 Degree
 B) Voltage lags current by 45 Degree
 C) Current lags voltage by 90 Degree
 D) Voltage leads current by 45 Degree

Answer: D) Voltage leads current by 45 Degree

2. Why the transformer core is made as thin laminations?

- A) To increase the hysteresis losses
 B) To increase core saturation losses
 C) To maximize eddy current losses
 D) To minimize eddy current losses

Answer: D) To minimize eddy current losses

3. What is the reason for the use of contactors in control circuits?

- A) To decrease load current
 B) Supply power to loads
 C) To increase load current
 D) To protect the load from arcing

Answer: B) Supply power to loads

4. What is the unit of inductance?

- A) Henry
 B) Farad
 C) Watts
 D) Joule

Answer: A) Henry

5. What is the name of effect of changing current in one coil, induces EMF in nearby coil?

- A) Mutual induction
 B) Self induction
 C) Induction
 D) Coupling

Answer: A) Mutual induction

6. At which condition the cold resistance of the low voltage lamp is measured using ohmmeter?

- A) Lamp is ON at 100 Degree Centigrade
 B) Lamp is ON at 320 Degree Centigrade
 C) Lamp is OFF at room temperature
 D) Lamp is ON at 400 Degree Centigrade

Answer: C) Lamp is OFF at room temperature

7. What is the purpose of vacuum contactors in electrical panel?

- A) Fast switching
 B) Slow switching

- C) Medium switching
 D) Packet switching

Answer: A) Fast switching

8. Find the total resistance value of 10 ohms and 20 ohms connected in parallel.

- A) 666.6 Ohms
 B) 6666 Ohms
 C) 66.66 Ohms
 D) 6.666 Ohms

Answer: D) 6.666 Ohms

9. What is the effect on the transformer operated below the rated voltage?

- A) Transformer heated up excessively
 B) Burn out windings
 C) Delivers reduced secondary voltage
 D) Leads to interwinding leakage

Answer: C) Delivers reduced secondary voltage

10. Which component opposes any change in current?

- A) Diode
 B) Capacitor
 C) Resistor
 D) Inductor

Answer: D) Inductor

11. How many ohms is equal to one Mega ohm?

- A) 10 kW
 B) 2000 kW
 C) 1000 kW
 D) 100 kW

Answer: C) 1000 kW

12. Which factor determines the inductance value?

- A) Frequency of the current
 B) Diameter of the coil
 C) Material of the coil
 D) Current flow through the coil

Answer: B) Diameter of the coil

13. What is the purpose of trimmer capacitor?

- A) Filtering
 B) Decoupling
 C) Fine tuning
 D) Coupling

Answer: C) Fine tuning

14. What is the main problem caused for severe pitting in relays?

- A) Excessive contact current
 B) Chatter during a slow release
 C) Excessive number of operations
 D) Low contact current

Answer: A) Excessive contact current

15. Which part of the relay causes most trouble?

- A) Relay contacts
- B) Hinges
- C) Relay coil
- D) Frame and core

Answer: A) Relay contacts

16. Which value is equal to one picofarad?

- A) 10-12 Farad
- B) 10¹² Farad
- C) 10⁶ Farad
- D) 10⁻⁶ Farad

Answer: A) 10-12 Farad

17. What is the name of Multi-turn potentiometers?

- A) Single turn trim pots
- B) Multi turn trim pots
- C) Single turn dual pots
- D) Multi turn dual pots

Answer: B) Multi turn trim pots

18. What is the cause of burnt relay contacts?

- A) Excessive contact current
- B) Low contact current
- C) Excessive number of operations
- D) Chatter during a slow release

Answer: A) Excessive contact current

19. Find the total inductance value of two inductors 10H and 15H of connected in series.

- A) 25 H
- B) 05 H
- C) 15 H
- D) 10 H

Answer: A) 25 H

20. What is the result of hysteresis loss in magnetic material?

- A) Magnetic flux increases
- B) Energy loss takes place
- C) Back emf increases
- D) Eddy current decreases

Answer: B) Energy loss takes place

21. Which property of the capacitor stores electrical energy in electrostatic field?

- A) Dielectric
- B) Capacitive reactance
- C) Stray capacitance
- D) Capacitance

Answer: B) Capacitive reactance

22. What type of ripple filter circuit is used for large load current requirements?

- A) Capacitor Input filter
- B) LC filter
- C) Inductor Input filter
- D) RC filter

Answer: A) Capacitor Input filter

23. How power rating is specified for transformers?

- A) Watts (W)
- B) Horse power (HP)
- C) Volt ampere (VA)
- D) Voltage (V)

Answer: C) Volt ampere (VA)

24. What is the colour code for 100 Ohm resistor?

- A) Brown, black, brown
- B) Black, brown, black
- C) Brown, brown, brown
- D) Brown, black, red

Answer: A) Brown, black, brown

25. Which meter is used to find the exact resistance value of resistors?

- A) Ohm meter
- B) Watt meter
- C) Ammeter
- D) Volt meter

Answer: A) Ohm meter

26. Which unit is used to measure capacitance value?

- A) Henry
- B) Farad
- C) Ohm
- D) Mho

Answer: B) Farad

27. What is the power dissipated if 10mA current flows through a 10K Ohm resistor?

- A) 3000 milli watts
- B) 2000 milli watts
- C) 1000 milli watts
- D) 4000 milli watts

Answer: C) 1000 milli watts