

March 2026

Sri Mahalingeswara ITI

Question Paper

Duration: 30 Mins

Total Marks: 27

ID: ITISKILL8169CC

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| Student Name: _____ | Roll No: _____ |
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1. What type of ripple filter circuit is used for large load current requirements?

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

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

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

3. Which factor determines the inductance value?

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

4. Which value is equal to one picofarad?

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

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

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

6. 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 leads current by 45 Degree  
C) Voltage lags current by 45 Degree      D) Current lags voltage by 90 Degree

7. Which unit is used to measure capacitance value?

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

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

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

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

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

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

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

11. How power rating is specified for transformers?

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

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

- A) Fast switching                      B) Slow switching  
C) Packet switching                  D) Medium switching

13. What is the unit of inductance?

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

14. What is the purpose of trimmer capacitor?

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

15. Which component opposes any change in current?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

24. What is the cause of burnt relay contacts?

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

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

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

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

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

27. Which part of the relay causes most trouble?

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