

**Duration: 30 Mins**

**Total Marks: 40**

**ID: ITISKILL9406VY**

Student Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

**1.** Which law relates to voltage, current and resistance in an electrical circuit?

- A) Ohm s law                      B) Newton s law  
C) Faraday s law                D) Lenz s law

**2.** Which tool is used for skinning the insulation of cables and cleaning the wire surface?

- A) Electrician's knife        B) Firmer chisel  
C) Hacksaw                      D) Combination pliers

**3.** What is the unit of capacitance used with single phase induction motors in domestic RAC system?

- A) Milli henry                  B) Milli ampere  
C) Microfarad                 D) Kilo ohm

**4.** Which material is used for making zener diode?

- A) Silicon                        B) Lead  
C) Titanium                      D) Platinum

**5.** Which joint is made in either single or multi - strand conductors?

- A) Britannia joint              B) Western union joint  
C) Rat tail joint                 D) Scarfed joint

**6.** Which property limits the flow of electrons in an electrical circuit?

- A) Current                        B) Voltage  
C) Resistance                  D) Conductance

**7.** How the ability of a conductor is called if it induces the voltage in the same conductor?

- A) Conductance                B) Self inductance  
C) Capacitance                 D) Resistance

**8.** Which semiconductor material is used to make diodes?

- A) Steel                          B) Aluminium  
C) Silicon                        D) Copper

**9.** Which application uses the digital ICs?

- A) Amplifier                      B) Voltage regulator

- C) Tuned circuits                D) Logic gates

**10.** What is the equivalent of one microfarad in farad?

- A) 10-3 farad                    B) 10-12 farad  
C) 10-9 farad                    D) 10-6 farad

**11.** What is the effect of pouring water on electrodes resistance in earth pit?

- A) Increases                      B) Remains same  
C) Equalises                      D) Decreases

**12.** What is the name of active component used in electronic circuit?

- A) Transistor                    B) SCR  
C) DIAC                          D) TRIAC

**13.** How the maximum reverse voltage across the diode is termed in reverse biased condition?

- A) Peak rectification voltage    B) Diode voltage  
C) Peak inverse voltage        D) Ripple frequency

**14.** Which meter indicates the true power directly in an electrical circuit?

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

**15.** What are the passive components used in electronic circuits?

- A) Transformers and semiconductors    B) Resistors, capacitors and inductors  
C) Semi conductors and transistors        D) Transistors, diodes and SCRs

**16.** What is the name of electronic circuit?

- A) Half wave rectifier            B) Quarter wave rectifier  
C) Full wave rectifier            D) Bridge rectifier

**17.** What is the supply voltage if a current of 2 ampere flows through 10 Ohm resistor in a circuit?

- A) 55 Volt                        B) 20 Volt

C) 65 Volt

D) 45 Volt

18. How many terminals are there in a Silicon Controlled Rectifier (SCR)?

A) Three

B) Two

C) Four

D) One

19. Which material is used for making disc in energy meter?

A) Zinc

B) Aluminium

C) Copper

D) Brass

20. Which is the common terminal while Ohm meter reads AB = 10 Ohm, AC = 15 Ohm and BC = 25 Ohm if the motor terminals are A, B and C?

A) Terminal C

B) Terminal B

C) Terminal A

D) Earth Terminal

21. Which type of conductor is used for bus bars?

A) Solid conductor

B) Standard conductor

C) Thermal conductor

D) Stranded conductor

22. What is the total resistance if two resistors R1 and R2 are connected in series?

A)  $(R1 / R2)$  Ohms

B)  $(R1 - R2)$  Ohms

C)  $(R1 \times R2)$  Ohms

D)  $(R1 + R2)$  Ohms

23. Which component is used as a switching device in electronic circuit?

A) Zener diode

B) SCR

C) Capacitor

D) Diode

24. What is the load resistance in an electrical circuit, if current,  $I = 2$  amp and supply,  $V = 10$  volt?

A) 3 Ohms

B) 4 Ohms

C) 5 Ohms

D) 2 Ohms

25. What is the reverse break down voltage range of zener diode?

A) 0.1 to 0.5 volt

B) 1 to 3 volt

C) 0.5 to 1 volt

D) 3 to 18 volt

26. What are the active components used in electronic circuits?

A) Semi conductors and transformers

B) Transformers and inductors

C) Resistors, capacitors and inductors

D) Transistors, diodes and SCRs

27. Which winding has more inductance in refrigerator compressor motor?

A) Start

B) Run

C) Start and common

D) Common

28. Which type of diode is used for communication circuits?

A) Signal diode

B) Zener diode

C) Rectifier diode

D) Switching diode

29. How electrons flow in a battery circuit?

A) Negative polarity to positive polarity

B) Phase to neutral

C) Phase to earth

D) Positive to negative polarity

30. Which material is used to avoid oxidation between aluminium conductor and the terminal?

A) Grease

B) Petrol

C) Kerosene

D) Shellac

31. What is the unit of electric current?

A) Ampere

B) Farad

C) Ohm

D) Volt

32. Which device maintains a constant DC output?

A) Rectifier circuits

B) Voltage regulators

C) Current limiters

D) Load regulators

33. How many diodes are required for making a bridge rectifier circuit?

A) Two

B) Three

C) Four

D) One

34. What is the unit of inductance?

A) Henry

B) Farad

C) Ampere

D) Ohm

35. Which winding has low resistance in resistance start induction run motor?

A) Running winding

B) Auxiliary winding

C) Common winding

D) Starting winding

36. What is the maximum capacity of 3 phase squirrel cage induction motor used with direct on line (DOL) starter?

A) 15 HP

B) 20 HP

C) 5 HP

D) 10 HP

37. What is the unit of electrical energy?

A) Volt

B) Watt

C) Ampere

D) Kilo watt hour

**38.** What is the condition of compressor motor if Ohm meter reads infinity across common and start terminals?

- A) Starting winding open
- B) Running winding shorted
- C) Starting winding shorted
- D) Running winding open

**39.** Which electronic component is the voltage regulator?

- A) Transistor
- C) Triac

- B) Zener diode
- D) Diac

**40.** Which material is used for making ICs?

- A) Silicon
- C) Platinum

- B) Mild steel
- D) Carbon