

Duration: 30 Mins

Total Marks: 100

ID: ITISKILL4957KI

Student Name: _____ Roll No: _____

1. In which analog meter the battery is provided?

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

- A) Deflection is independent of current direction B) Deflection is inversely proportional to current
C) Deflecting and controlling torques are D) Weight of the soft iron pieces

2. Which type of wave is generated in Schmitt trigger circuit?

- A) Sine wave B) Triangular wave
C) Saw tooth wave D) Square wave

10. Which IC is used for (DEMUX) function in data transmission?

- A) 74 LS 151 B) IC 7486
C) IC 7483 D) 74 LS 138

3. Why the soft iron pieces in the moving iron meter is tongue shaped?

- A) To damp the oscillations B) To produce magnetic attraction
C) To generate heat D) To achieve uniformity of scale

11. Which tool is used for seaming the funnel like taper?

- A) Vices B) Blow horn stake
C) Angle steel D) Hatchet stake

4. How the accuracy of amplitude and frequency measured by CRO is checked?

- A) By built-in calibration signal B) By complex wave form
C) By sine wave signal D) By function generator

12. Which artificial respiration method to be avoided to a person with abdomen injury?

- A) Mouth-to-mouth method B) Schafer's method
C) Mouth-to-nose method D) Nose-to-mouth method

5. What is the percentage of conductivity of electric current in silver?

- A) 1 B) 0.56
C) 0.67 D) 0.94

13. Which class of fire is classified involving metals?

- A) Class C B) Class B
C) Class A D) Class D

6. What is the unit of electric charge?

- A) Ampere B) Hertz
C) Volts D) Coulomb

14. 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 100 Degree Centigrade
C) Lamp is ON at 320 Degree Centigrade D) Lamp is ON at 400 Degree Centigrade

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

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

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

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

8. What is the propagation delay of the standard TTL chip?

- A) 10 ns B) 12 ns
C) 5 ns D) 8 ns

16. How the single strand wire is called?

- A) Multi strand wire B) Flexible wire
C) Twisted wire D) Hook up wire

9. Which characteristics enable the deflection of pointer in the attraction type moving iron meter?

17. Which type of toe caps are used to avoid crushing of feet at the time of shifting equipments?

- A) Rubber toe caps B) Plastic toe caps
C) Steel toe caps D) Leather toe caps

18. What is the decimal conversion number for the octal number (2374)₈?

- A) (1276)₁₀ B) (1266)₁₀
C) (1286)₁₀ D) (1296)₁₀

19. What is the shape of prohibition sign?

- A) Triangular B) Rectangular
C) Circular D) Square

20. What is the shape of mandatory signs?

- A) Square B) Rectangular
C) Circular D) Triangular

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

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

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

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

23. Which fire extinguisher is used to put off class C type of fire?

- A) Dry powdered B) Carbon-di-oxide
C) Foam type D) Jet of water

24. 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

25. Which material is used as electrical insulator?

- A) Germanium B) Aluminium
C) Porcelain D) Gallium

26. Which material contains eight electrons in valency layer?

- A) Insulators B) Semiconductors
C) Conductors D) Intrinsic semiconductors

27. Which meter movement is not affected by stray magnetic fields?

- A) PMMC meter B) MI meter - attraction type

- C) MI meter - Repulsion type D) Thermo couple meter

28. What is the effect of electric shock at very low voltage levels (Less than 40v)?

- A) Burning of the skin B) Muscles contact
C) Unpleasant tingling sensation D) Fibrillation

29. What is the percentage of conductivity of electric current in copper?

- A) 0.94 B) 1
C) 0.67 D) 0.56

30. Which parameter is measured by a multimeter?

- A) Energy B) Frequency
C) Voltage D) Time duration

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

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

32. What is the shape of warning sign board?

- A) Hexagonal shape B) Triangular shape
C) Square shape D) Circular shape

33. Which electrical property opposes the flow of electrons?

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

34. How the single strand wire is called?

- A) Flexible wire B) Hook - up wire
C) Twisted wire D) Multistrand wire

35. Which unit is used to measure capacitance value?

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

36. Which meter uses a moving coil for measurement?

- A) LCR meter B) MI repulsion type
C) PMMC meter D) MI attraction type

37. What is the power dissipation of the standard TTL chip?

- A) 5 mW/gate B) 20 mW/gate
C) 15 mW/gate D) 10 mW/gate

38. What is the decimal number for the binary number 0101?

- A) 6 B) 5
C) 7 D) 4

39. In which arrangement the high value of resistor is connected to extend the range of voltmeter?

- A) Delta
- B) Series
- C) Parallel
- D) Star

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

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

41. What is the purpose of trimmer capacitor?

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

42. Which torque is used in PMMC meter movement?

- A) High torque
- B) Low torque
- C) Insufficient torque
- D) Moderate torque

43. Which instrument used to measure resistance, capacitance and inductance?

- A) Kelvin bridge
- B) Wheatstone bridge
- C) Wein bridge
- D) LCR bridge

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

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

45. What is the advantage of using digital multimeter?

- A) Linear scale
- B) Easy portability
- C) Logarithmic scale
- D) Accuracy

46. What is the name of the procedure carried out to ensure the trustworthy standards of the measuring instrument?

- A) Calibration
- B) Testing standards
- C) Re-alignment
- D) Range test

47. What is the purpose of wood rasp file?

- A) Cutting metals
- B) 90 Degree corners
- C) Finishing flat edges
- D) Preliminary rough work

48. What is the use of screw driver?

- A) Tighten or loosen rivets
- B) Tighten or loosen screws
- C) Hold the screws
- D) Tighten or loosen bolts

49. Which material is used for making instrument cabinets?

- A) Plastic
- B) Hard rubber
- C) Wood
- D) Sheet metal

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

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

51. Which metal has very good conductivity to the electric current?

- A) Gold
- B) Silver
- C) Aluminium
- D) Copper

52. Electrical conductivity of gold is

- A) 67%
- B) 100%
- C) 56%
- D) 94%

53. What is the first step to rescue the person in electrical contact?

- A) Break the contact
- B) Switch OFF power supply
- C) Call the doctor
- D) Pull the person from electrical contact

54. What is stationary electric charges?

- A) Electrical charges
- B) Kinetic charges
- C) Static charges
- D) Chemical charges

55. Which electrode controls brightness of the image on the screen of oscilloscope?

- A) Control grid
- B) Cathode
- C) Focussing electrode
- D) Anode

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

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

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

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

58. What is the purpose of damping torque in PMMC meter?

- A) Control the magnetic field
- B) Control the pivot point
- C) Control the swinging of the coil
- D) Control the jewel bearing

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

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

60. Which is the maximum size of drill bit used in electrical hand drilling machine?

- A) 3.5 mm
- B) 6.5 mm
- C) 1.5 mm
- D) 0.35 mm

61. Which circuits requires the flip - flops for their operation?

- A) Oscillator circuits
- B) Modulator circuits
- C) Amplifier circuits
- D) Memory circuits

62. How the sensitivity of voltmeter is determined?

- A) Ohms per volt rating
- B) Maximum voltage measurement
- C) Meter coil resistance
- D) FSD current

63. Which control is used in repulsion type moving iron instrument to keep the pointer at zero position?

- A) Magnetic attraction control
- B) Spring control
- C) Magnetic repulsion control
- D) Air damping control

64. Which factor determines the inductance value?

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

65. Which electrical parameter opposes the flow of electrons?

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

66. Which step is followed for treating a person from electric shock?

- A) Provide water
- B) Keep the victim cold
- C) Cover the victim with a coat
- D) Move the victim to a ventilated place

67. Find the value of shunt resistance required for 1 mA meter to extend the range and measure 10 mA (RM = 27 Ohm) ?

- A) 2 Ohms
- B) 1 Ohm
- C) 3 Ohms
- D) 4 Ohms

68. Which parameter is used in the working of moving coil meter?

- A) Eddy current damping
- B) Spring control
- C) Stray magnetic fields
- D) Permanent magnetic fields

69. How many inputs are available in the 7447 BCD-to-seven segment decoder used to drive the LED display?

- A) Four
- B) One

- C) Seven
- D) Eight

70. What is the use of flip - flop?

- A) It stores binary information
- B) It stores voltage
- C) It stores current
- D) It stores energy

71. Which fire extinguisher is used to put off class A type of fire?

- A) Foam type
- B) Carbon-di-oxide
- C) Dry powdered
- D) Jet of water

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

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

73. What is the reason for electric fire?

- A) Open circuit
- B) Overloading
- C) Deviation
- D) Proper earthing

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

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

75. What is the purpose of covering provided over the electrical conductor?

- A) Reduce current flow
- B) Decrease voltage rating
- C) Protection against weather
- D) Increase current flow

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

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

77. Which function control in CRO, adjust the trace sharper?

- A) Focus
- B) Time/Div trigger
- C) Intensity
- D) Amplitude (V/Div)

78. How many electrons are contained in coulomb of electric charge?

- A) 6.25×10^{12} electrons
- B) 6.25×10^{18} electrons
- C) 6.25×10^{16} electrons
- D) 6.25×10^8 electrons

79. Which method is used for blanketing with foam to extinguish the fire?

- A) Starving
- B) Heating
- C) Smothering
- D) Cooling

80. Which frame is used for winding the coil of PMMC meter?

- A) Aluminium frame
- B) Wooden frame
- C) Ceramic frame
- D) Steel frame

81. 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

82. How the movement of electrons through a conductor in a particular direction is called?

- A) Inductance
- B) Electric current
- C) Conductance
- D) Resistance

83. Which part of the relay causes most trouble?

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

84. How the gas and liquefied gases are classified

- A) Class D fire
- B) Class A fire
- C) Class B fire
- D) Class C fire

85. What is the unit of inductance?

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

86. How the overlapping of excess sheet metal causing bulge at seam and edge is prevented?

- A) Mallet
- B) L - angles
- C) Notches
- D) Square stake

87. What is the percentage of conductivity of electric current in aluminium?

- A) 0.56
- B) 0.76
- C) 0.22
- D) 0.47

88. What is the full form of the abbreviation PMMC meter?

- A) Position Magnet Moving Coil meter
- B) Principle Magnet Moving Coil meter
- C) Permanent Magnet Moving Coil meter
- D) Parallel Magnet Moving Coil meter

89. What is the cause of injuring at the time of lifting a load?

- A) Falling object
- B) Wrong lifting technique
- C) Object striting the load
- D) Heavy load

90. Which cores are used in intermediate frequency transformers?

- A) Nickel
- B) Ferrite
- C) Cobalt
- D) Steel

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

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

92. Which material conducts electricity?

- A) Paper
- B) Mica
- C) Glass
- D) Copper

93. Which angle is checked by the try square?

- A) 45 Degree
- B) 60 Degree
- C) 90 Degree
- D) 75 Degree

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

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

95. How power rating is specified for transformers?

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

96. What is the digital signal value for the analog signal value 6V?

- A) 100
- B) 110
- C) 101
- D) 111

97. Which component opposes any change in current?

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

98. Which value is equal to one picofarad?

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

99. Which factor influences the severity of electrical shock?

- A) Person receives the shock
- B) Level of current in micro ampere
- C) Very low DC voltage
- D) Duration of current passing

100. What is the power supply required to operate the most standard TTL ICs properly?

- A) + 4.75v to + 5.25V
- B) + 1.5v to +2.5V

C) + 7.5v to + 12V

D) - 1.5v to - 2.5V