

Duration: 30 Mins

Total Marks: 100

ID: ITISKILL9511AG

Student Name: _____ Roll No: _____

1. How the single strand wire is called?

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

C) BT136

D) BFW10

2. What are the uses of simulation softwares?

- A) Design and test a circuit B) Design a circuit
C) Solder and desolder components D) Replace defective components

10. Which band is used for UHF in International Telecommunication System?

- A) Band 9 B) Band 6
C) Band 11 D) Band 4

3. What is the full form of the abbreviation SPDT used in switches?

- A) Shared Pole Double Throw B) Single Pole Double Throw
C) Single Phase Dual Throw D) Single Pole Single Throw

11. 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

4. Which meter uses a moving coil for measurement?

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

12. Which electrolyte is used in maintenance free lead acid batteries?

- A) Ceramic electrolyte B) Potassium electrolyte
C) Sodium electrolyte D) Gelled electrolyte

5. In which quantity affects the Q point of a transistor amplifier?

- A) Increased temperature B) Mismatching signals
C) Proper biasing methods D) Decreased temperature

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

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

6. What is the advantage of SMPS in computer?

- A) High efficiency B) Bulky
C) High frequency noise low D) Servicing of SMPS is easy

14. How the gas and liquefied gases are classified

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

7. Which parameter is maintained constant in zener diode?

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

15. How the solid state relays are working for increased lifetime?

- A) Slower in operations B) No moving parts to wear and tear
C) Bulky profile D) Spark generated during switching

8. How the insulation coating stays without damage, even on bending the wire?

- A) Due to wire resistance B) Due to high current flow
C) Due to elastic property of insulation D) Due to the strength of the wire material

16. How batteries are classified based on their working?

- A) Button cells and lithium cells B) Dry cells and alkaline cells
C) Cylindrical cells and rectangular cells D) Primary cells and secondary cells

9. What is the code number of TRIAC?

- A) 2N2646 B) 2N1597

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

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

18. When does the rosin flux melts in a soldering process?

- | | |
|-------------------------------|---------------------------------|
| A) When the solder is melting | B) When the solder is heated |
| C) After the solder melts | D) During the solder is melting |

19. Why NPN type of transistors are preferred over the PNP type transistors?

- | | |
|--------------------------------|-----------------------------------|
| A) NPN has good bias stability | B) NPN has higher switching speed |
| C) Low operating voltage | D) NPN has lower switching speed |

20. What is the name of the circuit that shifts the original signal in a vertical downward direction?

- | | |
|--------------------------------|------------------------------|
| A) Negative clamping circuit | B) Positive clamping circuit |
| C) Combination clipper circuit | D) Peak clipper circuit |

21. What is the disadvantage of the two diode full wave rectifier compared with a bridge rectifier?

- | | |
|-----------------------------------|---|
| A) The ripple frequency is higher | B) Each diode carries half the load current |
| C) The need of bulky transformer | D) DC output level is higher |

22. Where the programs and datas are stored after execution in computer?

- | | |
|-----------|--------------|
| A) Buffer | B) Chip set |
| C) Memory | D) Processor |

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

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

24. What is the switching speed of solid state relays?

- | | |
|---------------------------|--------------------------|
| A) 1 to 100 milli seconds | B) 1 to 100 nano seconds |
| C) 1 to 25 nano seconds | D) 10 to 60 nano seconds |

25. What is the common and popular application of U.J.T?

- | | |
|----------------------|---------------------------|
| A) Voltage regulator | B) Motor speed controller |
| C) Multivibrator | D) Relaxation oscillator |

26. Which measuring instrument is used to make quick test on a TRIAC?

- | | |
|-----------------|-------------|
| A) Oscilloscope | B) Ohmmeter |
| C) Voltmeter | D) Ammeter |

27. What is the function of schottky diode BA 157 in SMPS circuit?

- | | |
|--------------------|------------------------|
| A) Error amplifier | B) Voltage regulator |
| C) Switching diode | D) Fast recovery diode |

28. What is the use of photo transistor?

- | | |
|------------------------|------------------------------------|
| A) Used as demodulator | B) Used as light controlled switch |
| C) Used as oscillator | D) Used in comparator circuit |

29. What is the maximum current ratings of solid state relays available in high power packages?

- | | |
|------------|-----------|
| A) 100 Amp | B) 40 Amp |
| C) 10 Amp | D) 1 Amp |

30. Which bearing is supporting the shaft of moving coil assembly in a PMMC instrument?

- | | |
|-----------------------|-------------------|
| A) Jewelled bearings | B) Steel bearings |
| C) Gun metal bearings | D) Bush bearings |

31. Which mode is used in differential amplifier?

- | | |
|----------------------------|-------------------|
| A) Common emitter | B) Common emitter |
| C) Common - mode operation | D) Common base |

32. How power rating is specified for transformers?

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

33. Which voltage level is reached to increase the current through DIAC rapidly?

- | | |
|-----------------------|-----------------------|
| A) Break over voltage | B) Zener voltage |
| C) Cut in voltage | D) Break down voltage |

34. What type of control is used for FET?

- | | |
|---------------------------------|--------------------------------|
| A) Resistance controlled device | B) Frequency controlled device |
| C) Current controlled device | D) Voltage controlled device |

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

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

36. What is the output frequency of the pulsating DC in a two diode fullwave rectifier?

- | | |
|--|------------------------------------|
| A) Half of the input A/C frequency | B) Double the input A/C frequency |
| C) Three times the input A/C frequency | D) Same frequency of the A/C input |

37. Which battery is made from non-toxic materials?

- | | |
|--------------------------------|------------------------------|
| A) Nickel metal hydride (NiMH) | B) Lithium polymer (Li-Poly) |
| C) Nickel cadmium (Nicaid) | D) Lithium ion (Li-Ion) |

38. What is the maximum emitter to base voltage VEB (max) for the transistor BC 147?

- | | |
|-------|-------|
| A) 6V | B) 5V |
| C) 8V | D) 4V |

39. Which is the package type for the JFET BFW10?

- | | |
|----------|----------|
| A) TO-62 | B) TO-92 |
| C) TO-72 | D) TO-82 |

40. What is the total voltage of six 1.5 V cells, connected in series?

- | | |
|----------|-----------|
| A) 6 VDC | B) 3 VDC |
| C) 9 VDC | D) 12 VDC |

41. What is the term stands for TRIAC?

- | | |
|----------------------------|-----------------------------|
| A) Triode Access console | B) Triode Alternate control |
| C) Triode AC semiconductor | D) Triode DC semiconductor |

42. How the flux residue is removed after soldering a joint?

- | | |
|-----------------|----------------------|
| A) Water | B) Petrol |
| C) Organic flux | D) Isopropyl alcohol |

43. Which metal has very good conductivity of electric current?

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

44. Why the plunger desoldering tool needs periodical cleaning?

- | | |
|--|--------------------------------------|
| A) To remove the flux collected in chamber | B) To help the joint to be soldered |
| C) To melt the solder quickly | D) To prevent clogging of the nozzle |

45. How many Op-Amps are fabricated inside the LM 324 IC pack?

- | | |
|------------------|------------------|
| A) Two Op-Amps | B) Five Op-Amps |
| C) Three Op-Amps | D) Three Op-Amps |

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

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

47. Why the solvent Iso Propyl Alcohol (IPA) is used on the solder joint?

- | | |
|--|---|
| A) To help the corrosive action | B) Remove residual flux and prevent corrosion |
| C) To break down the acid within the joint | D) Cleaning before soldering the joint |

48. Which tool is used to measure the size of wire?

- | | |
|---------------|------------------------|
| A) Try square | B) Feeler gauge |
| C) Steel rule | D) Standard wire gauge |

49. What is the purpose of flux in soldering electronic circuit components?

- | | |
|--|---|
| A) Reduce the solder cooling time | B) Increase the melting temperature of solder |
| C) Dissolve the oxide layer on the metal surface | D) Form the oxide layer |

50. What is the reason for electric fire?

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

51. What is the use of battery analyzers with rapid-test program?

- | | |
|---|---|
| A) Test the battery life | B) Test the charging current of battery |
| C) Indicate the health condition of battery | D) Test the load current delivered |

52. What is the full form of electronic component MOV?

- | | |
|-------------------------|-------------------------|
| A) Metal Over Varistor | B) Metal Over Varactor |
| C) Metal Oxide Varistor | D) Metal Oxide Varactor |

53. Which component, which reads the command from memory and executes?

- | | |
|-------------------------|---------------------|
| A) Processor | B) Read Only Memory |
| C) Random Access Memory | D) Graphics card |

54. What type of feed back is used by the Wein-bridge oscillator to oscillate the signal?

- | | |
|--|----------------------|
| A) Both positive and negative feedback | B) No feedback |
| C) Positive feedback | D) Negative feedback |

55. What is the common and popular application of UJT?

- | | |
|---------------------------|----------------------|
| A) Motor speed controller | B) Voltage regulator |
| C) Relaxation oscillator | D) Multivibrator |

56. What is the purpose of using positive feed back in amplifiers?

- | | |
|----------------------------|---------------------------|
| A) To produce multiplexion | B) To produce oscillation |
|----------------------------|---------------------------|

C) To produce modulation D) To produce demodulation

C) 6.25×10^{12} electrons

D) 6.25×10^8 electrons

57. Which impurity is added to form P - type semiconductor material?

A) Antimony

B) Gallium

C) Arsenic

D) Phosphorus

58. At which temperature the 6040 solder start meeting?

A) 380 Degree Centigrade

B) 100 Degree Centigrade

C) 300 Degree Centigrade

D) 200 Degree Centigrade

59. Which type of amplifier is used to operate the loud speaker?

A) RF Amplifier

B) Power Amplifier

C) Voltage Amplifier

D) IF Amplifier

60. What is the process of adding impurities to a pure semi conductor material?

A) Diffusion

B) Etching

C) Doping

D) Forming

61. Which is the package type for the JFET BFW10?

A) TO-82

B) TO-92

C) TO-62

D) TO-72

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

A) 1000 milli watts

B) 4000 milli watts

C) 3000 milli watts

D) 2000 milli watts

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

A) 1

B) 0.56

C) 0.67

D) 0.94

64. How many gauge numbers in SWG, changed to double the cross section area of the conductor?

A) Two gauge sizes decreased

B) Three gauge sizes decreased

C) Four gauge sizes increased

D) Five gauge sizes increased

65. Which is the property of IGBT?

A) Low input impedance

B) Low gate signal

C) Significant power consumption

D) High efficiency and fast switching

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

A) 6.25×10^{16} electrons

B) 6.25×10^{18} electrons

67. Rate of change of input voltage

A) Rate of change of input voltage

B) Rate of change of output voltage

C) Rate of change of output voltage

D) Rate of change of output frequency

68. Which port is used to connect the HDD on the mother board?

A) IDE port

B) Com 2 port

C) Com 1 port

D) Floppy drive port

69. What is the forward voltage for the single colour orange LEDs?

A) 0.5 V

B) 2.5 V

C) 2 V

D) 0.8 V

70. Which type of voltage regulator is IC 723?

A) Multipin variable voltage regulator

B) Three pin adjustable voltage regulator

C) Three pin positive voltage regulator

D) Three pin negative voltage regulator

71. The speed of spindle motor rotates inside the hard disk

A) 2500 to 5000 r.p.m

B) 3500 to 6000 r.p.m

C) 3600 to 7200 r.p.m

D) 4000 to 800 r.p.m

72. Which circuit photo SCR opto couplers are used?

A) Amplifier circuits

B) DC circuits

C) Counter circuits

D) AC powered circuits

73. Which ratio of tin-lead combination is used for electronic component soldering work?

A) 40:60

B) 63:37:00

C) 20:40

D) 60:40:00

74. What is the efficiency transformer coupled class A amplifier?

A) Unity

B) More than 60%

C) Less than 20%

D) About 50%

75. What are the fundamental properties of insulation materials?

A) Length and cross sectional area

B) Insulation resistance and dielectric strength

C) Temperature and electrical hazards

D) Low resistance and thermal heat

76. What is the package type for BF 245B?

A) TO-82

B) TO-102

C) TO-72

D) TO-92

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

A) + 1.5v to +2.5V

B) + 4.75v to + 5.25V

C) - 1.5v to - 2.5V

D) + 7.5v to + 12V

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

A) Carbon-di-oxide

B) Foam type

C) Jet of water

D) Dry powdered

79. What is the name of the ratio of ON-time pulse to the OFF-time pulse of multivibrator?

A) Threshold comparator

B) Pulse repetition

C) Pulse repetition

D) Control voltage

80. Which electrical property opposes the flow of electrons?

A) Current

B) Voltage

C) Power

D) Resistance

81. What is the rated output voltage of a silver oxide cell?

A) 4.0 VDC

B) 1.0 VDC

C) 2.5 VDC

D) 1.5 VDC

82. Which is the N - channel FET?

A) Main current flows through P-doped material

B) AC supply connected to drain termin

C) S-terminal connected to positive

D) Main current flows through N-doped material

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

A) Current lags voltage by 90 Degree

B) Voltage leads current by 45 Degree

C) Voltage lags current by 45 Degree

D) Current leads voltage by 90 Degree

84. Which insulation layer is used in MOSFET?

A) Silicon-di-oxide

B) Germanium material

C) Antimony material

D) Arsenic material

85. Which material conducts electricity?

A) Glass

B) Mica

C) Copper

D) Paper

86. What is the current gain of common collector amplifier?

A) High

B) Very high

C) Medium

D) Low

87. Which is the 3 terminal, negative voltage regulator IC?

A) LM 340

B) IC 7905

C) IC 7812

D) LM 320

88. What is the shape of mandatory signs?

A) Rectangular

B) Circular

C) Triangular

D) Square

89. How many alternating layers are there in IGBT?

A) 2 layers

B) 3 layers

C) 4 layers

D) Single layer

90. How the mechanical zero error of panel meter is corrected?

A) Keeping the meter in vertical position

B) By replacing pointer

C) By replacing moving coil

D) By replacing moving coil

91. What is stationary electric charges?

A) Static charges

B) Kinetic charges

C) Electrical charges

D) Chemical charges

92. What is the specific gravity of concentrated sulphuric acid?

A) 1.245

B) 1.175

C) 1.835

D) 1.945

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

A) Conductance

B) Inductance

C) Resistance

D) Electric current

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

A) 6666 Ohms

B) 66.66 Ohms

C) 6.666 Ohms

D) 666.6 Ohms

95. What is the name of the circuit that shifts the original signal in a vertical upward direction?

A) Peak clipper circuit

B) Negative clamping circuit

C) Positive clamping circuit

D) Combination clipper circuit

96. What is the important feature of instrumentation amplifier?

A) Low gain accuracy

B) Low gain accuracy

C) Reduce the output off set voltage

D) Increase the output voltage

97. Which step is important for soldering a joint?

- A) Pasting the joint
- B) Cleaning the joint
- C) Cooling the joint
- D) Heating the joint

98. Which unit is used to measure capacitance value?

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

99. What type of packaging is generally used to transistors

utilized for low power amplification?

- A) Ceramic packaging
- B) Plastic packaging with metal heatsinks
- C) Plastic packaging
- D) Metal packaging

100. Which rechargeable cell is designed with conductive polymer?

- A) Gelled electrolyte lead acid cell
- B) Nickel metal hydride cell
- C) Plastic cell
- D) Lead acid cell