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Answer Key

Duration: 30 Mins

Total Marks: 422

Q.ID: ITISKILL9219XS

1. How the single strand wire is called?

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

**Answer: D) Hook - up wire**

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

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

**Answer: D) Random Access Memory**

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

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

**Answer: D)  $6.25 \times 10^{18}$  electrons**

4. What is the name of the circuit that shifts the waveform upward or downward without disturbing its shape?

- A) Biased clipper circuit      B) Clamper circuit  
C) Combination clipper circuit      D) Clipper circuit

**Answer: B) Clamper circuit**

5. What is the defect on the soldered joint, if it is cooled by blowing air?

- A) Dry solder joint      B) Poor wetting  
C) Pits and voids      D) Dull grainy surface

**Answer: A) Dry solder joint**

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

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

**Answer: B) LCR bridge**

7. What is the effect on the output voltage in a bridge rectifier circuits, with one diode open?

- A) Full output rated voltage      B) Half of the rated output voltage  
C) Very low voltage      D) No output DC voltage

**Answer: B) Half of the rated output voltage**

8. What is the typical forward voltage drop of the yellow

colour LED?

- A) 2.2 V      B) 2.1 V  
C) 2 V      D) 1.8 V

**Answer: B) 2.1 V**

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

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

**Answer: A) Break over voltage**

10. What is the term stands for TRIAC?

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

**Answer: B) Triode AC semiconductor**

11. What is the lowest voltage level of discharging the lead-acid battery?

- A) 1.5 V      B) 1.2 V  
C) 1.85 V      D) 1.7 V

**Answer: D) 1.7 V**

12. What is the expansion of PRF related to frequency?

- A) Pulse probability frequency      B) Pulse repetition frequency  
C) Pulse repetition frequency      D) Power regulated frequency

**Answer: B) Pulse repetition frequency**

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

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

**Answer: A) Silver**

14. Which is the major factor to determine the quality performance of A/D converter?

- A) Number of bits used      B) Number of bits used  
C) Proportional to the binary weight      D) Degree of accuracy

**Answer: A) Number of bits used**15. What should be the time constant  $t = RC$  for a good clamper circuit with reference to time period of the input

signal?

- A) Half the time period of signal  
B) Double the time of signal frequency  
C) Five times the time period of signal  
D) RC valves should be at least ten times

**Answer: D) RC valves should be at least ten times**

16. What is the use of screw driver?

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

**Answer: D) Tighten or loosen screws**

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

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

**Answer: A) 10 ns**

18. What is the maximum drain- source voltage, VDS for the JFET BF 245B?

- A) 30 V  
B) 10 V  
C) 40 V  
D) 20 V

**Answer: A) 30 V**

19. What is the minimum forward current  $I_f$  for single colour LEDs?

- A) 20 MA  
B) 10 MA  
C) 30 MA  
D) 5 MA

**Answer: A) 20 MA**

20. Which circuit uses the enhancement type MOSFET?

- A) High power amplifier circuits  
B) Integrated MOS switching circuits  
C) High frequency switching circuits  
D) Low power oscillator circuits

**Answer: B) Integrated MOS switching circuits**

21. Which semiconductor devices are composed inside the solid state relays?

- A) Thyristor and transistors  
B) Diodes and transistors  
C) UJYs and FETs  
D) MOSFETs and IGBTs

**Answer: A) Thyristor and transistors**

22. 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

**Answer: B) No moving parts to wear and tear**

23. Which electrolyte is used in lead-acid battery?

- A) Sulphuric acid  
B) Zinc chloride

C) Potassium hydroxide solution

D) Alkaline solution

**Answer: A) Sulphuric acid**

24. What is the gate current ( $I_g$ ) of the JFET, when reverse biased?

- A) Practically infinity  
B) Practically unity  
C) Practically zero  
D) Practically very low

**Answer: C) Practically zero**

25. What is the advantage of PIN photo diodes?

- A) Low sensitivity in the Ultraviolet range  
B) Medium sensitivity in the infrared range  
C) Low sensitivity in the infrared range  
D) High sensitivity in the infrared range

**Answer: D) High sensitivity in the infrared range**

26. Which IC package consist of 100 to 1000 transistors?

- A) Large scale integration (LSI)  
B) Small scale integration (SSI)  
C) Very large scale integration (VLSI)  
D) Medium scale integration (MSI)

**Answer: A) Large scale integration (LSI)**

27. How batteries are classified?

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

**Answer: B) Primary cells and secondary cells**

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

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

**Answer: D) Lamp is OFF at room temperature**

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

- A) 1.945  
B) 1.175  
C) 1.245  
D) 1.835

**Answer: D) 1.835**

30. What is the minimum current ratings of solid state relays available in low power packages?

- A) 10 milli Ampere  
B) Few micro Amperes  
C) 100 milli Ampere  
D) 50 milli Ampere

**Answer: B) Few micro Amperes**

31. Why LC tuned circuits are not used in audio frequency oscillators?

- A) LC values required is too large    B) LC components are not available  
C) LC tank circuit operation requires high voltage    D) LC tank circuit does not produce AF signals

**Answer: A) LC values required is too large**

**32.** What is the package type for BF 245B?

- A) TO-92    B) TO-72  
C) TO-102    D) TO-82

**Answer: A) TO-92**

**33.** Which angle is checked by the try square?

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

**Answer: A) 90 Degree**

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

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

**Answer: D) Blow horn stake**

**35.** What is the name of multi-stage amplifiers?

- A) Complementary symmetry amplifier    B) Cascoded amplifier  
C) Darlington pair amplifier    D) Cascaded amplifier

**Answer: D) Cascaded amplifier**

**36.** Which port is used to connect a plug and play peripheral device to CPU?

- A) USB port    B) COM 1 port  
C) RJ45 port    D) COM 2 port

**Answer: A) USB port**

**37.** What is the code number of TRIAC?

- A) 2N2646    B) 2N1597  
C) BT136    D) BFW10

**Answer: C) BT136**

**38.** Which component is used to remove the heat generated inside the SMPS?

- A) Silicon grease    B) Mica film spacer  
C) Heat sink    D) Cooler fan

**Answer: D) Cooler fan**

**39.** What is the input impedance of IGBT?

- A) Infinity    B) Unity  
C) High    D) Low

**Answer: C) High**

**40.** Why the transformer core is made as thin laminations?

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

**Answer: B) To minimize eddy current losses**

**41.** What is the maximum specified voltage for the TRIAC TIC 201D?

- A) 1.7 V    B) 1.5 V  
C) 2.1 V    D) 2.5 V

**Answer: D) 2.5 V**

**42.** What is the typical forward voltage drop of the RED colour LED?

- A) 1.8 V    B) 2.1 V  
C) 2 V    D) 2.2 V

**Answer: A) 1.8 V**

**43.** Which of the device is opto-coupled TRIACS?

- A) MOC3020    B) BT136  
C) 2N2648    D) B3202

**Answer: D) B3202**

**44.** How the insulators are called?

- A) Thyristors    B) Semiconductors  
C) Molecules    D) Dielectrics

**Answer: D) Dielectrics**

**45.** Which component is used to prevent over voltage of AC supply in SMPS?

- A) Metal film resistor    B) Carbon film resistor  
C) Metal oxide varistor    D) Wire wound resistor

**Answer: C) Metal oxide varistor**

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

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

**Answer: C) 6.666 Ohms**

**47.** Which material is used to make LDR for higher end requirements?

- A) Cadmium sulfide    B) Copper sulfide  
C) Lead selenide    D) Zinc sulfide

**Answer: C) Lead selenide**

**48.** How many ohms is equal to one Mega ohm?

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

**Answer: B) 1000 kW**

49. What is the advantage of using bias in transistor circuits?

- A) Easily sets saturated      B) Gives maximum distortion  
C) Never reach saturation      D) Provides positive feed back

**Answer: C) Never reach saturation**

50. What is produced by the power supply connected soldering iron?

- A) Fire      B) Water vapour  
C) Cool air      D) Heat

**Answer: D) Heat**

51. What is the main application of photo resistor?

- A) Voltage rectification      B) Controls of street lighting systems  
C) To generate oscillations      D) Demodulation purpose

**Answer: B) Controls of street lighting systems**

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

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

**Answer: B) Series**

53. Which step is important for soldering a joint?

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

**Answer: A) Heating the joint**

54. What is the meaning of first letter indicated in the transistor code number BC 107?

- A) Indium material used      B) Antimony material used  
C) Silicon material used      D) Germanium material used

**Answer: C) Silicon material used**

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

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

**Answer: D) Excessive contact current**

56. What is the voltage gain in a transistor if the input voltage in 40mv and the output voltage in 3.6V?

- A) 90      B) 180  
C) 270      D) 45

**Answer: A) 90**

57. What is the maximum specified voltage for the TRIAC TIC 201D?

- A) 2.5 V      B) 2.1 V

- C) 1.5 V      D) 1.7 V

**Answer: A) 2.5 V**

58. How many time constants required to charge a capacitor to 63.2% of its full charge voltage?

- A) One time constant      B) Two time constant  
C) Four time constant      D) Three time constant

**Answer: A) One time constant**

59. What is the current gain of a common ? base amplifier?

- A) Infinity      B) Less than 1  
C) Greater than 1      D) Unity

**Answer: B) Less than 1**

60. How the active and passive components are added in the circuit using simulation software?

- A) Clicking on the component group      B) Clicking on the list of components  
C) Clicking from the similar circuit      D) Copy and paste from similar circuit

**Answer: A) Clicking on the component group**

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

- A) + 1.5v to +2.5V      B) + 7.5v to + 12V  
C) + 4.75v to + 5.25V      D) - 1.5v to - 2.5V

**Answer: C) + 4.75v to + 5.25V**

62. Which impurity is added to pure semiconductor to form N-type material?

- A) Boron      B) Gallium  
C) Arsenic      D) Indium

**Answer: C) Arsenic**

63. Which method is adopted to charge a car battery with voltage rating of 2.3 V per cell?

- A) Float charging method      B) Constant current charging method  
C) Constant voltage charging method      D) Trickle charging method

**Answer: C) Constant voltage charging method**

64. What is the use of flip - flop?

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

**Answer: D) It stores binary information**

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

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

**Answer: C) Metal Oxide Varistor**

66. How much is the maximum load current of the negative voltage regulator IC 7912?

- A) 2.0 A
- B) 0.55 A
- C) 1.5 A
- D) 1.0 A

**Answer: A) 2.0 A**

67. What is stationary electric charges?

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

**Answer: C) Static charges**

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

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

**Answer: A) Electric current**

69. Why the complementary - symmetry amplifier is preferred over the other types of amplifier configurations?

- A) To eliminate the transformer
- B) To get more voltage gain
- C) To minimize the gain
- D) To get less distortion

**Answer: A) To eliminate the transformer**

70. What is the load current handled by the solid state relay that must be mounted to some heatsink to protect the device?

- A) 3 Amp
- B) 1 Amp
- C) 2 Amp
- D) Greater than 4 Amp

**Answer: D) Greater than 4 Amp**

71. What is the current rating of voltage regulator IC LM317L?

- A) 0.3 A
- B) 0.4 A
- C) 0.2 A
- D) 0.1 A

**Answer: D) 0.1 A**

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

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

**Answer: A) Fast switching**

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

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

**Answer: D) Supply power to loads**

74. What will happen when the forward bias voltage across

the PN junction is increased excessively?

- A) Increases the cut - in - voltage
- B) No current flows through the junction
- C) Junction ruptured and short circuited
- D) Barrier width of junction increases

**Answer: C) Junction ruptured and short circuited**

75. Which soldering instrument has hot air blowing facility?

- A) Wave soldering machine
- B) Soldering iron
- C) Temperature controlled soldering iron
- D) Soldering station

**Answer: D) Soldering station**

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

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

**Answer: D) TO-72**

77. Which is the combination of photo transistor?

- A) LASER diode and pin diode
- B) Photo resistor and TRIAC
- C) Photo diode and transistor
- D) Photo transistor and DIAC

**Answer: C) Photo diode and transistor**

78. What is the range of temperature used in soldering station?

- A) 800 Degree Centigrade to 1000 Degree Centigrade
- B) 450 Degree Centigrade to 600 Degree Centigrade
- C) 150 Degree Centigrade to 450 Degree Centigrade
- D) 600 Degree Centigrade to 800 Degree Centigrade

**Answer: C) 150 Degree Centigrade to 450 Degree Centigrade**

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

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

**Answer: A) Square wave**

80. Which is the output pin number IC 555 timer?

- A) Pin number 6
- B) Pin number 5
- C) Pin number 5
- D) Pin number 3

**Answer: D) Pin number 3**

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

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

**Answer: B) Relaxation oscillator**

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

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

**Answer: B) Protection against weather**

**83.** Which class of fire is classified involving metals?

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

**Answer: D) Class D**

**84.** How the circuit schematic drawn using the simulation software is tested?

- A) Using multimeter            B) Using external oscilloscope  
C) Using analysis menu        D) Using virtual oscilloscope

**Answer: C) Using analysis menu**

**85.** What is the name of the pair of metal strips used in battery cell?

- A) Electrodes                      B) Cathode  
C) Electrolyte                     D) Carbon rod

**Answer: A) Electrodes**

**86.** Which electrical parameter is measured by the megger?

- A) Insulation resistance        B) Voltage  
C) Current                         D) Frequency

**Answer: A) Insulation resistance**

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

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

**Answer: A) Aluminium frame**

**88.** Which mouse action is used to move an object from one location to another?

- A) Left clicking                  B) Right clicking  
C) Double clicking               D) Drag and drop

**Answer: D) Drag and drop**

**89.** What is characteristics of instrumentation amplifier?

- A) Low input impedance        B) High input impedance  
C) High input impedance       D) Infinity output impedance

**Answer: B) High input impedance**

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

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

**Answer: A) Memory circuits**

**91.** What is the maximum blocking voltage of very high current handling IGBT modules?

- A) 6000 V                          B) 1000 V  
C) 5000 V                         D) 440 V

**Answer: A) 6000 V**

**92.** How much time is required to make a quality soldered joint using soldering iron?

- A) 15 - 20 seconds              B) 3 - 7 seconds  
C) 10 - 15 seconds              D) 7 - 10 seconds

**Answer: B) 3 - 7 seconds**

**93.** What is the advantage of IGBT?

- A) It has low input impedance    B) Low efficiency and slow switching  
C) High efficiency and fast switching    D) IGBT is a gate current driven device

**Answer: C) High efficiency and fast switching**

**94.** What is the forward voltage drop of single colour Red LED?

- A) 1.8 V                            B) 2 V  
C) 2.1 V                            D) 2.2 V

**Answer: A) 1.8 V**

**95.** What is the relation of wire diameter with current carrying capacity of conductor?

- A) Directly proportional        B) Drops more voltage across it  
C) Wire gets less heat         D) Inversely proportional

**Answer: A) Directly proportional**

**96.** Which device is a unipolar transistor?

- A) BJT                              B) FET  
C) IGBT                             D) UJT

**Answer: B) FET**

**97.** What is the main advantages of IGBT over BJT?

- A) Reverse bias secondary break downs    B) Fast switching speed  
C) Thermal limits are pushed to the edge    D) Superior current conduction capability

**Answer: D) Superior current conduction capability**

**98.** What is the meaning of maximum safe reverse voltage across a diode?

- A) Reverse break down voltage    B) PIV voltage  
C) Knee voltage                  D) Break down voltage

**Answer: B) PIV voltage**

**99.** Which band of frequency is used for RADAR in frequency spectrum allotted by the International Telecommunication Union (ITU)?

- A) ITU band - 4                      B) ITU band - 10  
C) ITU band - 8                      D) ITU band - 6

**Answer: B) ITU band - 10**

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

- A) 63:37:00                      B) 60:40:00  
C) 20:40                              D) 40:60

**Answer: B) 60:40:00**

**101.** Which device generates high frequency radio frequency indeferences by the extremely rapid turn-ON time?

- A) Op-Amp                              B) UJT  
C) Transistor                          D) TRIAC

**Answer: D) TRIAC**

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

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

**Answer: C) Notches**

**103.** Which characteristics exhibits the current conduction increases while the voltage across the devices decreases in a DIAC?

- A) Linearity characteristics              B) Nonlinearity characteristics  
C) Negative resistance characteristics      D) Positive resistance characteristics

**Answer: C) Negative resistance characteristics**

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

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

**Answer: D) Isopropyl alcohol**

**105.** How many types of soldering is used for joining metal surfaces?

- A) Four                                      B) Three  
C) Five                                      D) Two

**Answer: D) Two**

**106.** How the gas and liquefied gases are classified

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

**Answer: B) Class B fire**

**107.** What is the purpose of using IC74LS190?

- A) Modulator                              B) Attemnator  
C) Comparator                          D) Up/down counter

**Answer: D) Up/down counter**

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

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

**Answer: A) 0.56**

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

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

**Answer: D) Dissolve the oxide layer on the metal surface**

**110.** Which type of soldering is used for electronic circuit?

- A) Brazing                                  B) Hard soldering  
C) Hot soldering                          D) Soft soldering

**Answer: D) Soft soldering**

**111.** What is the percentage of sulphuric acid in electrolyte used for lead-acid batteries?

- A) 25%                                      B) 27%  
C) 12%                                      D) 40%

**Answer: B) 27%**

**112.** What is the range of photo current for photo transistor BPX 38?

- A) 0.2MA to 1.6MA                      B) 0.1MA to 1.2MA  
C) 0.3MA to 2.7MA                      D) 0.4MA to 3.8MA

**Answer: A) 0.2MA to 1.6MA**

**113.** Where does the depletion region exists in a bipolar transistor?

- A) Between emitter - base electrodes      B) Between collector - base electrodes  
C) Between collector and emitter electrodes      D) Between E-B and B-C electrodes

**Answer: D) Between E-B and B-C electrodes**

**114.** Which is the fastest A/D conversion techniques?

- A) High to medium speed data acquisition applies      B) Low speed data acquisition applies  
C) Absolute conversion accuracy      D) Absolute conversion accuracy

**Answer: C) Absolute conversion accuracy**

**115.** What is the name of the process to maintain the recommended level of electrolyte in lead-acid battery cell?

- A) Charging the cell                          B) Recharging  
C) Cycling of the cell                          D) Topping up

**Answer: D) Topping up**

116. Which memory device loses data on power failure?

- A) RAM
- B) ROM
- C) Hard disc
- D) CD ROM

**Answer: A) RAM**

117. At which temperature the 6040 solder start meeting?

- A) 300 Degree Centigrade
- B) 200 Degree Centigrade
- C) 100 Degree Centigrade
- D) 380 Degree Centigrade

**Answer: B) 200 Degree Centigrade**

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

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

**Answer: B) Indicate the health condition of battery**

119. What is the purpose of wood rasp file?

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

**Answer: A) Preliminary rough work**

120. How the pass band gain of the circuit is expressed?

- A) In hertz
- B) In hertz
- C) In ampere
- D) In volts

**Answer: A) In hertz**

121. What is the input impedance of darlington pair transistors?

- A) Very low input impedance
- B) Medium input impedance
- C) Uniter
- D) Very high input impedance

**Answer: D) Very high input impedance**

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

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

**Answer: B) Energy loss takes place**

123. Which configuration of transistor amplifier is most commonly used in electronic circuits?

- A) Common collector configuration
- B) Common drain amplifier configuration
- C) Common emitter configuration
- D) Common base configuration

**Answer: C) Common emitter configuration**

124. What is the advantage of photo transistors over photo diodes?

- A) Vulnerable to electrical sources
- B) Considerably lower sensitivity
- C) Considerable greater sensitivity
- D) Limit voltage handling capacity

**Answer: C) Considerable greater sensitivity**

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

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

**Answer: D) Deflection is independent of current direction**

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

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

**Answer: D) Mutual induction**

127. What is the advantage of IGBT?

- A) Low gate signal power
- B) Low driving power
- C) Fast switching speed
- D) Used to isolate logic circuits

**Answer: B) Low driving power**

128. Why the plunger desoldering tool needs periodical cleaning?

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

**Answer: A) To prevent clogging of the nozzle**

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

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

**Answer: C) 10 mW/gate**

130. Which circuits commonly use parallel-fed Hartley oscillators?

- A) Radio receivers
- B) Stereo amplifiers
- C) Automatic voltage stabilizers
- D) Television receivers

**Answer: A) Radio receivers**

131. What is the minimum current ratings of solid state relays available in low power packages?

- A) 50 milli Ampere
- B) Few micro Amperes
- C) 100 milli Ampere
- D) 10 milli Ampere

**Answer: B) Few micro Amperes**

132. What is the name of the procedure carried out to ensure

the trustworthy standards of the measuring instrument?

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

**Answer: A) Calibration**

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

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

**Answer: A) Control the swinging of the coil**

**134.** What is the drawback of IGBT compared to the power MOSFET?

- A) Higher driving power requirement
- B) Poor switching speed
- C) Poor current conduction capability
- D) Not suitable for power applications

**Answer: B) Poor switching speed**

**135.** What is the rated voltage of a single cell in lead acid battery?

- A) 2.0 V
- B) 2.2 V
- C) 1.5 V
- D) 12 V

**Answer: B) 2.2 V**

**136.** What is the advantage of using digital multimeter?

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

**Answer: D) Accuracy**

**137.** What is the advantage of silicon over germanium for transistor fabrication?

- A) Lower operating voltage
- B) Higher thermal stability
- C) Higher amplification factor
- D) Lower thermal stability

**Answer: B) Higher thermal stability**

**138.** How many layers of PN - junctions are used in SCR fabrication?

- A) Three layer three junctions
- B) Two layer two junctions
- C) Three layer four junctions
- D) Four layer three junctions

**Answer: D) Four layer three junctions**

**139.** What is the overall base emitter voltage required to turn the darlington pair?

- A) 0.2 V
- B) 0.7 V
- C) 0.3 V
- D) 1.4 V

**Answer: D) 1.4 V**

**140.** What is the additional advantage of rosin flux used for

soldering electronic components?

- A) It is non-conductive
- B) It is a chemical paste
- C) It is good conductor
- D) Inorganic acid in nature

**Answer: A) It is non-conductive**

**141.** Which electronic device inversely changes its resistance with the amount of light falling on it?

- A) Photo resistors
- B) Photo transistors
- C) Photo voltaic cells
- D) Photo diodes

**Answer: A) Photo resistors**

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

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

**Answer: D) Jewelled bearings**

**143.** In which analog meter the battery is provided?

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

**Answer: A) Ohm meter**

**144.** What is the unit of inductance?

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

**Answer: A) Henry**

**145.** When does the complementary metal oxide type MOSFET configuration consumes power?

- A) Never consumes power
- B) Always consumes power
- C) While it holds its state
- D) During switching

**Answer: D) During switching**

**146.** What is the current rating of voltage regulator IC LM338K?

- A) 3A
- B) 2A
- C) 5A
- D) 4A

**Answer: C) 5A**

**147.** How many transistors are built inside the Very Large Scale Integration (VLSI) IC package?

- A) 100 to 1000 transistors
- B) 1000 and above
- C) 10 to 100 transistors
- D) 1 to 10 transistors

**Answer: B) 1000 and above**

**148.** Which codes are stored in computer ROM BIOS chip?

- A) Temporary codes
- B) Permanent codes
- C) Partial change codes
- D) Change codes

**Answer: B) Permanent codes**

**149.** What is the advantage of SMPS in computer?

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

**Answer: C) High efficiency**

**150.** How the negative feedback is called?

- A) Voltage controlled feedback B) Degenerative feedback  
C) Current controlled feedback D) Regenerative feedback

**Answer: B) Degenerative feedback**

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

- A) By replacing moving coil B) By replacing moving coil  
C) Keeping the meter in vertical position D) By replacing pointer

**Answer: A) By replacing moving coil**

**152.** What is the shape of prohibition sign?

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

**Answer: A) Circular**

**153.** What is the formula used to calculate the current gain (alpha) of common base amplifier?

- A)  $I_E / I_C$  B)  $I_E / I_C$   
C)  $I_B / I_E$  D)  $I_C / I_E$

**Answer: D)  $I_C / I_E$**

**154.** Which circuit uses photo-darlington devices?

- A) AC powered circuits B) Amplifier circuits  
C) Counter circuits D) DC circuits

**Answer: D) DC circuits**

**155.** Which component opposes any change in current?

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

**Answer: C) Inductor**

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

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

**Answer: D) Jet of water**

**157.** Which battery is made from non-toxic materials?

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

**Answer: C) Nickel metal hydride (NiMH)**

**158.** Which three terminal voltage regulator IC has adjustable output?

- A) LM 305 B) LM 317  
C) LM 105 D) LM 100

**Answer: B) LM 317**

**159.** What is the natural shape of a quartz crystal?

- A) Pentagonal prism with pyramid at ends B) Cube shape with pyramid at ends  
C) Cylindrical shape with pyramid at ends D) Hexagonal prism with pyramid at ends

**Answer: D) Hexagonal prism with pyramid at ends**

**160.** What is the efficiency transformer coupled class A amplifier?

- A) About 50% B) Unity  
C) Less than 20% D) More than 60%

**Answer: A) About 50%**

**161.** Which purpose the cadmium sulfide cells (CDS cells) are used?

- A) Rechargeable cells B) Primary cells  
C) Light dependent resistor D) Voltage dependent resistor

**Answer: C) Light dependent resistor**

**162.** What is the advantage of MOSFET?

- A) Low thermal ionisation of electron-holes B) Fast switching speed  
C) Slow switching speed D) Higher power gate signal

**Answer: B) Fast switching speed**

**163.** The speed of spindle motor rotates inside the hard disk

- A) 3500 to 6000 r.p.m B) 2500 to 5000 r.p.m  
C) 3600 to 7200 r.p.m D) 4000 to 800 r.p.m

**Answer: C) 3600 to 7200 r.p.m**

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

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

**Answer: C) Dry powdered**

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

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

**Answer: B) Three Op-Amps**

**166.** Which mode is used in differential amplifier?

- A) Common - mode operation B) Common emitter

- C) Common emitter                      D) Common base

**Answer: A) Common - mode operation**

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

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

**Answer: A) 100 Amp**

**168.** What is the maximum reverse voltage that can be applied across the general purpose LED?

- A) 8 V    B) 15 V  
C) 32 V                                      D) 12 V

**Answer: A) 8 V**

**169.** Which material contains eight electrons in valency layer?

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

**Answer: C) Insulators**

**170.** What will happen in SCR with forward biased condition and gate current is applied?

- A) Forward current conduction commences    B) Reverse current conduction commences  
C) Forward current conduction stops                  D) Reverse current turned off

**Answer: A) Forward current conduction commences**

**171.** Which section is used by the processor to save instructions?

- A) Micro processor                      B) Graphics card  
C) Memory                                  D) System unit

**Answer: C) Memory**

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

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

**Answer: C) Gelled electrolyte**

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

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

**Answer: B) Capacitor Input filter**

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

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

**Answer: D) Double the input A/C frequency**

**175.** How the maximum permissible voltage that can be applied across the collector ? Emitter junction of a transistor is indicated?

- A) VCB (max) in volts                      B) VBE (max) in volts  
C) VCE (max) in volts                      D) VCC in volts

**Answer: C) VCE (max) in volts**

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

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

**Answer: C) 9 VDC**

**177.** What will happen if the photo resistor (LDR) is exposed to low level light condition?

- A) Resistance will increase to 1 Kilo Ohm    B) Resistance will increase to around 1 Mega Ohm  
C) Resistance will decrease to 100 Ohm    D) Resistance will decrease to 10 Ohm

**Answer: B) Resistance will increase to around 1 Mega Ohm**

**178.** Which process the ICS are made?

- A) Grown junction process                  B) Point contact junction process  
C) Point contact junction process          D) Micro photo - lithographic process

**Answer: D) Micro photo - lithographic process**

**179.** 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

**Answer: C) 25 H**

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

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

**Answer: B) 6.5 mm**

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

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

**Answer: B) Wrong lifting technique**

**182.** Which coding system for transistor type numbering system is followed by American standard?

- A) JIS standard                                  B) Home codes  
C) PRO-ELECTRON standard                  D) JEDEC standard

**Answer: D) JEDEC standard**

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

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

**Answer: A) 1**

**184.** What is the shape of warning sign board?

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

**Answer: D) Triangular shape**

**185.** Which meter uses a moving coil for measurement?

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

**Answer: D) PMMC meter**

**186.** Which device is used to test the fully charged condition of a lead acid battery cell?

- A) Hydrometer
- B) Multimeter
- C) DC voltmeter
- D) High rate discharge tester

**Answer: D) High rate discharge tester**

**187.** Which rechargeable cell is designed with conductive polymer?

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

**Answer: D) Plastic cell**

**188.** Why transistors made of silicon is preferred over the germanium semiconductor material?

- A) Higher thermal stability
- B) Silicon transistor needs low cut-in-voltage
- C) Complex design
- D) Requires complicated bias arrangement

**Answer: A) Higher thermal stability**

**189.** Which component filter the ripples in the rectifier circuit?

- A) Diode
- B) Capacitor
- C) DIAC
- D) TRIAC

**Answer: B) Capacitor**

**190.** What is the effect on the current flow with increased diameter of conductor?

- A) Allows high current flow
- B) Opposes more current
- C) Resistance increases
- D) More voltage dropped

**Answer: A) Allows high current flow**

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

- A) LM 340
- B) IC 7905
- C) IC 7812
- D) LM 320

**Answer: B) IC 7905**

**192.** What is the name of Multi-turn potentiometers?

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

**Answer: D) Multi turn trim pots**

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

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

**Answer: A) Positive clamping circuit**

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

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

**Answer: B) Focus**

**195.** What is the advantage of MOSFET?

- A) Very low on-state voltage
- B) Superior current conduction capability
- C) Low gate signal power requirements
- D) Low driving power

**Answer: C) Low gate signal power requirements**

**196.** Which materials are used for semiconductor?

- A) Gallium and indium
- B) Silicon and germanium
- C) Silver and aluminium
- D) Arsenic and antimony

**Answer: B) Silicon and germanium**

**197.** What is the full form of the abbreviation ISA?

- A) Industry Software Architecture
- B) Industry Standard Architecture
- C) Industry System Architecture
- D) Institution Standard Architecture

**Answer: B) Industry Standard Architecture**

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

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

**Answer: B) Smothering**

**199.** 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) 3 Ohms
- C) 4 Ohms
- D) 1 Ohm

**Answer: B) 3 Ohms**

200. What is the limitation of integrated circuits?

- A) Increased reliability
- B) Drains more current
- C) Greater flexibility
- D) Greater flexibility

**Answer: C) Greater flexibility**

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

- A) Four gauge sizes increased
- B) Two gauge sizes decreased
- C) Five gauge sizes increased
- D) Three gauge sizes decreased

**Answer: D) Three gauge sizes decreased**

202. What is the reason for electric fire?

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

**Answer: A) Overloading**

203. Which electrical quantity is directly proportional to the current carrying capacity of the conductor?

- A) Conductor s diameter
- B) Conductor s shape
- C) Passing current
- D) Wire resistance

**Answer: A) Conductor s diameter**

204. What is the function of astable multivibrator in timer IC 555?

- A) Serving as comparator
- B) Serving as an oscillator
- C) Serving as an oscillator
- D) Acting as transducers

**Answer: B) Serving as an oscillator**

205. Which is the device made and interconnected by two transistors?

- A) UJT
- B) FET
- C) LED
- D) SCR

**Answer: D) SCR**

206. Which electrical property opposes the flow of electrons?

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

**Answer: C) Resistance**

207. What is the unit of electric charge?

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

**Answer: C) Coulomb**

208. Which option opens a list of programs, currently installed in the computer?

- A) Recent documents
- B) All program
- C) Help menu
- D) Start menu

**Answer: B) All program**

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

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

**Answer: C) Switch OFF power supply**

210. What is the purpose of standard wire gauge (SWG)?

- A) Measure voltage
- B) Measure diameter of wire
- C) Measure insulation of wire
- D) Measure current

**Answer: B) Measure diameter of wire**

211. 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

**Answer: D) Permanent magnetic fields**

212. What is the important feature of instrumentation amplifier?

- A) Increase the output voltage
- B) Low gain accuracy
- C) Low gain accuracy
- D) Reduce the output off set voltage

**Answer: B) Low gain accuracy**

213. Which material is used to make LDR for lower end requirements?

- A) Cadmium sulfide
- B) Zinc sulfide
- C) Aluminium sulfide
- D) Copper sulfide

**Answer: A) Cadmium sulfide**

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

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

**Answer: C) Permanent Magnet Moving Coil meter**

215. What is the difference of Colpitts oscillator compare to Hartley oscillator?

- A) Uses SCR combination
- B) Uses split capacitor
- C) Uses split inductor
- D) Uses crystal oscillator

**Answer: B) Uses split capacitor**

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

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

**Answer: C) Silver**

**217.** Which shortcut key function is used to close the working window on the computer?

- A) Ctrl + S
- B) Ctrl + P
- C) Shift + F3
- D) Alt + F4

**Answer: D) Alt + F4**

**218.** Electrical conductivity of gold is

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

**Answer: B) 67%**

**219.** How the drive circuits for the power MOSFETs are coupled?

- A) Using pulse transformer
- B) Using transistors
- C) Direct coupling method
- D) Using logic circuitry

**Answer: A) Using pulse transformer**

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

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

**Answer: C) Control grid**

**221.** Which is the first step followed in troubleshooting of electronic circuit?

- A) Mechanical test
- B) Physical and sensory test
- C) Chemical test
- D) Thermal test

**Answer: B) Physical and sensory test**

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

- A) To produce multiplexion
- B) To produce modulation
- C) To produce demodulation
- D) To produce oscillation

**Answer: D) To produce oscillation**

**223.** How many operational amplifiers are fabricated in the LM741 IC?

- A) Four Op-Amps
- B) One Op-Amp
- C) Two Op-Amps
- D) Two Op-Amps

**Answer: B) One Op-Amp**

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

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

**Answer: A) Ohmmeter**

**225.** Which factor influences the severity of electrical shock?

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

**Answer: B) Duration of current passing**

**226.** What is the full form of the abbreviation MOSFET?

- A) Metal oxide semiconductor FET
- B) Minimum output signal FET
- C) Metal organic serial FET
- D) Medium oscillator signal FET

**Answer: A) Metal oxide semiconductor FET**

**227.** How the sensitivity of voltmeter is determined?

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

**Answer: B) Ohms per volt rating**

**228.** What is the switching speed of solid state relays?

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

**Answer: C) 1 to 100 nano seconds**

**229.** What is the use of clamper in electronic circuits?

- A) For negative peak clipping
- B) For DC component restoration
- C) For positive peak clipping
- D) For slicing both peaks

**Answer: B) For DC component restoration**

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

- A) 2.5 V
- B) 0.8 V
- C) 2 V
- D) 0.5 V

**Answer: C) 2 V**

**231.** Which value is equal to one picofarad?

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

**Answer: A) 10-12 Farad**

**232.** Which tool works on the principle of air suction?

- A) Desoldering braid
- B) Desoldering pump
- C) Soldering iron
- D) Soldering wick

**Answer: B) Desoldering pump**

**233.** Which unit is used to measure capacitance value?

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

**Answer: B) Farad**

**234.** Which type of clipper is that a small portion of the negative half cycle of signal is removed?

- A) Biased negative clipper
- B) Biased positive clipper
- C) Positive clamper
- D) Combination clipper

**Answer: A) Biased negative clipper**

**235.** How the single strand wire is called?

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

**Answer: C) Hook up wire**

**236.** What is the cause of burnt relay contacts?

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

**Answer: B) Excessive contact current**

**237.** Which signal is sent by the SMPS to computer mother board?

- A) Processor signal
- B) Peripheral signal
- C) Power good signal
- D) Device signal

**Answer: C) Power good signal**

**238.** When does the biased positive clipper removes the portion of input signal?

- A) Signal voltage equals the bias battery voltage
- B) Signal voltage is lesser than bias battery
- C) During the negative half cycle of input
- D) Signal voltage becomes greater than bias battery voltage

**Answer: D) Signal voltage becomes greater than bias battery voltage**

**239.** What is the switching speed of solid state relays?

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

**Answer: A) 1 to 100 nano seconds**

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

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

**Answer: B) When the solder is heated**

**241.** Which material is used for negative terminal of alkaline manganese dioxide batteries?

- A) Nickel hydroxide
- B) Zinc
- C) Cadmium
- D) Lithium

**Answer: B) Zinc**

**242.** Which material is used for making instrument cabinets?

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

**Answer: B) Sheet metal**

**243.** What is the maximum drain- source voltage, VDS for the JFET BF 245B?

- A) 10 V
- B) 30 V
- C) 20 V
- D) 40 V

**Answer: B) 30 V**

**244.** What is the full form of the abbreviation CD-ROM in computer?

- A) Classified Device Read Only Memory
- B) Connectivity Digital Read Only Memory
- C) Compact Disk Read Only Memory
- D) Computer Disk Read Only Memory

**Answer: C) Compact Disk Read Only Memory**

**245.** Which energy is converted into electrical energy in hydropower stations?

- A) Heat energy
- B) Mechanical energy
- C) Chemical energy
- D) Light energy

**Answer: B) Mechanical energy**

**246.** Which is the additional percentage of power delivered by the lithium Ion compared to NiMH battery?

- A) 25%
- B) 60%
- C) 40%
- D) 0.15

**Answer: C) 40%**

**247.** Which application the clamper circuit is used in electronics?

- A) Storage counters
- B) Radio receivers
- C) Radars
- D) Power supplies

**Answer: D) Power supplies**

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

- A) Power Amplifier
- B) Voltage Amplifier
- C) RF Amplifier
- D) IF Amplifier

**Answer: A) Power Amplifier**

**249.** What is the range of current rating of lead acid batteries used in automobiles?

- A) 5 to 10 Amp
- B) 10 to 25 Amp
- C) 2.5 to 4.5 Amp
- D) 100 to 400 Amp

**Answer: D) 100 to 400 Amp**

**250.** Which diode is used in low power communication circuits?

- A) Rectifier diodes
- B) Switching diodes
- C) High power diodes
- D) Signal diodes

**Answer: D) Signal diodes**

**251.** What is the result of forced air is blown to cool the joint while soldering?

- A) Solder setting very slowly
- B) Disturbs the chemical bonding
- C) Joint becomes mechanically stronger
- D) Results in dry brittle joint

**Answer: D) Results in dry brittle joint**

**252.** Which parameter of passive component can be calculated using the formula ?

- A) Capacitance
- B) Capacitive reactance
- C) Inductance
- D) Inductive reactance

**Answer: B) Capacitive reactance**

**253.** Which device converts digital data from computer into analog data and transmit through telephone line?

- A) Cache memory
- B) Processor
- C) Chipset
- D) MODEM

**Answer: D) MODEM**

**254.** What is the maximum power dissipation for a 555 IC?

- A) Below 500 mW
- B) Exactly 300 Mw
- C) Exactly 300 Mw
- D) Above 800 mW

**Answer: B) Exactly 300 Mw**

**255.** How gate is biased in JFET?

- A) AC supply function
- B) Forward biased
- C) Reverse biased
- D) Dual supply function

**Answer: C) Reverse biased**

**256.** What is the maximum forward gate current ( $I_g$ ) for BFW10 JFET?

- A) 10 mA
- B) 5 mA
- C) 8 mA
- D) 20 mA

**Answer: A) 10 mA**

**257.** How the light sensitive photo transistor enclosed inside a tight package is activated?

- A) By the bias voltage to the photo transistor
- B) By the light sensitive receiver inside
- C) By IR light produced inside the package
- D) By the external signal to the transistor

**Answer: C) By IR light produced inside the package**

**258.** How gate is biased in JFET?

- A) Forward biased
- B) Dual supply function
- C) AC supply function
- D) Reverse biased

**Answer: D) Reverse biased**

**259.** What is the colour of positive electrode in fully charged

lead acid battery?

- A) Red colour
- B) Spongy grey colour
- C) Reddish brown
- D) Grey colour

**Answer: C) Reddish brown**

**260.** Which torque is used in PMMC meter movement?

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

**Answer: C) Moderate torque**

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

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

**Answer: A) Due to elastic property of insulation**

**262.** What type of control is used for FET?

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

**Answer: A) Voltage controlled device**

**263.** What is the function of pin number 2 of IC 555 timer circuit?

- A) Reset
- B) "+VCC"
- C) Trigger
- D) Trigger

**Answer: C) Trigger**

**264.** What is the effect of over heating on soldering a joint?

- A) Poor wetting
- B) Flux trapped against lead
- C) Dull grainy surface
- D) Cold joint

**Answer: C) Dull grainy surface**

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

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

**Answer: B) 74 LS 138**

**266.** Which device is used to produce hard copy of a document in a computer?

- A) Monitor
- B) Printer
- C) Modem
- D) Speaker

**Answer: B) Printer**

**267.** What is the maximum power dissipation  $P_{max}$  for BF 245B?

- A) 300 mw
- B) 200 mw
- C) 400 mw
- D) 100 mw

Answer: A) 300 mw

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

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

Answer: A) Increased temperature

269. What is the peak to peak voltage in a bridge rectifier circuit with load current of 10 mA, capacitance of 470 F and 50 Hz supply frequency?

- A) 1.525 v
- B) 3.567 v
- C) 2.134 v
- D) 0.213 v

Answer: D) 0.213 v

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

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

Answer: A) By built-in calibration signal

271. What is the maximum drain current ID for BFW10?

- A) 20 mA
- B) 10 mA
- C) 5 mA
- D) 30 mA

Answer: A) 20 mA

272. How the electrical quantity measured by the meter is marked in it?

- A) Printing the valves
- B) Printing the valves
- C) Directly printing the specifications
- D) Using colour codes

Answer: A) Printing the valves

273. Which formula is used to find the conductance?

- A)  $Q / V$
- B)  $V / I$
- C)  $I \times R$
- D)  $I / V$

Answer: D)  $I / V$

274. What is the shape of standard wire gauge?

- A) Square metal disk
- B) Rectangular plastic disk
- C) Circular metal disk
- D) Cylindrical glass disk

Answer: C) Circular metal disk

275. What is the code number of TRIAC?

- A) 2N1597
- B) 2N2646
- C) BFW10
- D) BT136

Answer: D) BT136

276. How many time constant period is required to fully charge a capacitor?

- A) 7 time constants
- B) 5 time constants
- C) 3 time constants
- D) 10 time constants

Answer: B) 5 time constants

277. Which circuit is used to clip portion of both positive and negative half cycle of input signal voltage?

- A) Biased positive clipper circuit
- B) Biased negative clipper circuit
- C) Unbiased clipper circuit
- D) Combination clipper circuit

Answer: D) Combination clipper circuit

278. Which metal coating is used on compact disk?

- A) Chromium
- B) Nickel
- C) Aluminium
- D) Silver

Answer: C) Aluminium

279. 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

Answer: B) Three pin adjustable voltage regulator

280. What is the effect of shaking the soldered joint while cooling?

- A) It results in oxidation of solder
- B) It will corrode the joint
- C) It disturbs the chemical bonding take place
- D) Flux will not dissolve

Answer: C) It disturbs the chemical bonding take place

281. What is successive approximation (SAR)?

- A) Method of SMT
- B) Method of D/A conversion
- C) Method of D/A conversion
- D) Method of IC fabrication

Answer: B) Method of D/A conversion

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

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

Answer: B) Spring control

283. What is the full form of the abbreviation LBA in computer system?

- A) Large boot addressing
- B) Low block accessing
- C) Large block accessing
- D) Logical block accessing

Answer: C) Large block accessing

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

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

**Answer: D) The need of bulky transformer**

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

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

**Answer: B) 6V**

**286.** Which current flows in TRIAC between MT1 and MT2?

- A) Principal current  
B) Conventional current  
C) Reverse current  
D) Leakage current

**Answer: A) Principal current**

**287.** Which electrical quantity controls the operation of the bipolar transistor device?

- A) Energy  
B) Voltage  
C) Current  
D) Frequency

**Answer: C) Current**

**288.** How does the values of bias resistors selected for collector current in class -B amplifiers?

- A) Q point set slightly below cut-off  
B) Quiescent current beyond the cut-off point  
C) Quiescent current over the cut-off value  
D) Quiescent current at mid point

**Answer: C) Quiescent current over the cut-off value**

**289.** What is the current gain of common collector amplifier?

- A) Low  
B) High  
C) Medium  
D) Very high

**Answer: D) Very high**

**290.** Why the load testing is done on the lead-acid battery?

- A) Test I<sup>2</sup>R power loss in the battery cell  
B) Test the dimensional accuracy  
C) Verify the rated power delivery  
D) Measure the rated output voltage

**Answer: D) Measure the rated output voltage**

**291.** What is the input impedance of IGBT?

- A) High input impedance  
B) Infinity input impedance  
C) Medium input impedance  
D) Low input impedance

**Answer: A) High input impedance**

**292.** Why the electronic device IGBT is preferred over the power MOSFET?

- A) Low switching speed  
B) Suitability for medium power applications

- C) Higher driving power requirement  
D) Higher switching repetition rates

**Answer: D) Higher switching repetition rates**

**293.** What is the decimal number for the binary number 0101?

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

**Answer: D) 5**

**294.** Which software is used to simulate electronic circuits?

- A) Auto cad  
B) Multi sim  
C) Photo shop  
D) MS office

**Answer: B) Multi sim**

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

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

**Answer: A) Single Pole Double Throw**

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

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

**Answer: A) Schafer's method**

**297.** Which circuit uses the F to V converter section?

- A) Schmitt trigger circuit  
B) Digital frequency meter circuit  
C) Digital frequency meter circuit  
D) Up/down counter circuit

**Answer: B) Digital frequency meter circuit**

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

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

**Answer: A) Both positive and negative feedback**

**299.** Which is electronic simulation software?

- A) MS Office  
B) AutoCAD  
C) Photoshop  
D) Macspice

**Answer: D) Macspice**

**300.** What is the output pulse frequency of the full wave rectifier with input frequency of 50 Hz?

- A) 40 Hz  
B) 200 Hz  
C) 60 Hz  
D) 100 Hz

**Answer: D) 100 Hz**

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

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

**Answer: D) Standard wire gauge**

**302.** Which is the N - channel FET?

- A) Main current flows through N-doped material
- B) AC supply connected to drain termin
- C) S-terminal connected to positive
- D) Main current flows through P-doped material

**Answer: A) Main current flows through N-doped material**

**303.** What is the maximum drain - source voltage, VDS for BFW10?

- A) 40 V
- B) 30 V
- C) 20 V
- D) 50 V

**Answer: B) 30 V**

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

- A) Antimony
- B) Gallium
- C) Phosphorus
- D) Arsenic

**Answer: B) Gallium**

**305.** When does the zener diode begins to conduct in the reverse biased condition?

- A) Voltage across zener reached 0.3V
- B) When bias voltage reached 0.7V
- C) After the barrier voltage cancelled
- D) Voltage across it reached the zener voltage

**Answer: D) Voltage across it reached the zener voltage**

**306.** Which circuit photo SCR opto couplers are used?

- A) AC powered circuits
- B) Counter circuits
- C) DC circuits
- D) Amplifier circuits

**Answer: A) AC powered circuits**

**307.** How the performance of the amplifier designed using the simulation software is tested?

- A) Using test and measuring equipments
- B) Using multimeter
- C) Using measuring equipments
- D) Using virtual instrumentation testing

**Answer: D) Using virtual instrumentation testing**

**308.** How to improve the frequency stability in oscillator circuits?

- A) By using quartz crystal
- B) Improve the property of circuits
- C) Using L and C
- D) Increase the supply voltage

**Answer: A) By using quartz crystal**

**309.** Which is the major factor determines the quality performance of A/D converter?

- A) Measuring parameter
- B) Measuring parameter
- C) Conversion cycle
- D) Depends on data latch

**Answer: A) Measuring parameter**

**310.** What is the resonant frequency range of a crystal?

- A) Between 0.5 and 30 MhZ
- B) Between 0.1 and 1MHZ
- C) Between 0.5 and 25 MHZ
- D) Between 0.1 and 10 MHZ

**Answer: A) Between 0.5 and 30 MhZ**

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

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

**Answer: D) Negative clamping circuit**

**312.** Which terminal of the meter is connected for measuring electrical quantity?

- A) Input terminal
- B) Output terminal
- C) Output terminal
- D) Pointer mechanism

**Answer: A) Input terminal**

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

- A) Control voltage
- B) Threshold comparator
- C) Pulse repetition
- D) Pulse repetition

**Answer: C) Pulse repetition**

**314.** Which is the transistor used to operate the Colpitts oscillator?

- A) BF 194B
- B) BC 148B
- C) AC 188
- D) AC 127

**Answer: A) BF 194B**

**315.** Which is the drain current ( $I_d$ ) in JFET?

- A) Electron from source to drain
- B) Electron from drain to gate
- C) Electron from gate to source
- D) Electron from drain to source

**Answer: A) Electron from source to drain**

**316.** How the lamp failures caused by the high inrush currents in lamp dimmer circuits using TRIAC is eliminated?

- A) By the fuse
- B) Using MCB
- C) Using Safety resistor
- D) By soft start circuit

**Answer: D) By soft start circuit**

**317.** What is the maximum safe reverse voltage rating of a diode?

- A) Knee voltage  
C) Break down voltage
- B) PIV voltage  
D) Forward break down voltage

**Answer: B) PIV voltage**

**318.** Which class of amplifier uses fixed bias because of its imperent advantage of transistor will never go to saturation?

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

**Answer: A) Class - A**

**319.** What is the decimal conversion number for the octal number (2374)<sub>8</sub>?

- A) (1276)<sub>10</sub>  
C) (1296)<sub>10</sub>
- B) (1266)<sub>10</sub>  
D) (1286)<sub>10</sub>

**Answer: A) (1276)<sub>10</sub>**

**320.** What is the drawbacks of LDR?

- A) Available different sizes and specifications  
C) More sensitive
- B) Made of low resistance material with few holes  
D) Cannot be used to determine precise light levels

**Answer: D) Cannot be used to determine precise light levels**

**321.** In computer processing data, which table maintain the size of the partition?

- A) Partition table  
C) Process table
- B) Program table  
D) Procedure table

**Answer: A) Partition table**

**322.** What is the output produced in the ADC circuit?

- A) Analog output  
C) Triangular wave output
- B) Triangular wave output  
D) Sinewave output

**Answer: B) Triangular wave output**

**323.** How to overcome the problem of frequency drift in LC oscillators?

- A) Apply opposite polarity of signal  
C) Using high Q coils and good quality capacitors
- B) Provide negative feedback  
D) Increase the supply voltage

**Answer: C) Using high Q coils and good quality capacitors**

**324.** What is the name of defect if the flux is unable to remove the tarnish from the soldered joint?

- A) Pits and voids  
C) Poor wetting
- B) Cold joint  
D) Dull gravity surface

**Answer: B) Cold joint**

**325.** Which energy is converted by the battery to produce electricity?

- A) Mechanical energy into electrical energy  
C) Electrical energy into mechanical energy
- B) Chemical energy into electrical energy  
D) Electrical energy into light energy

**Answer: B) Chemical energy into electrical energy**

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

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

**Answer: B) 1000 milli watts**

**327.** Which space is used to design circuit in schematic editor of the Tina software?

- A) Components type space  
C) File operation space
- B) Components groups space  
D) Circuit work space

**Answer: D) Circuit work space**

**328.** What is the gate current ( $I_g$ ) of the JFET, when reverse biased?

- A) Practically infinity  
C) Practically very low
- B) Practically unity  
D) Practically zero

**Answer: D) Practically zero**

**329.** Which current flows in TRIAC between MT1 and MT2?

- A) Principal current  
C) Reverse current
- B) Leakage current  
D) Conventional current

**Answer: A) Principal current**

**330.** What is the information stored in digital registers?

- A) Decimal values  
C) Alphanumeric values
- B) Analog values  
D) Binary values

**Answer: D) Binary values**

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

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

**Answer: B) Relaxation oscillator**

**332.** Rate of change of input voltage

- A) Rate of change of output frequency  
C) Rate of change of output voltage
- B) Rate of change of input voltage  
D) Rate of change of output voltage

**Answer: C) Rate of change of output voltage**

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

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

**Answer: B) Ohm meter**

334. How power rating is specified for transformers?

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

**Answer: A) Volt ampere (VA)**

335. How is the soldering method used for joining large metal called?

- A) Hot soldering
- B) Welding
- C) Soft soldering
- D) Brazing

**Answer: D) Brazing**

336. Which is the N - channel FET?

- A) AC supply connected to drain termin
- B) S-terminal connected to positive
- C) Main current flows through P-doped material
- D) Main current flows through N-doped material

**Answer: D) Main current flows through N-doped material**

337. What are the basic components required for a clipping circuit?

- A) Diode and capacitor
- B) Transistor and diode
- C) Capacitor and resistor
- D) Diode and resistor

**Answer: D) Diode and resistor**

338. What is the name of the motion of charged particles in any medium?

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

**Answer: A) Current**

339. What type of packaging is generally used to transistors utilized for low power amplification?

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

**Answer: B) Plastic packaging**

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

- A) 1.0 VDC
- B) 1.5 VDC
- C) 4.0 VDC
- D) 2.5 VDC

**Answer: B) 1.5 VDC**

341. Which parameter controls the current flow in a BI-polar transistor?

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

**Answer: D) Current**

342. What is the maximum possible number of flip-flops in a decade counter?

- A)  $2^n$
- B)  $3^n$
- C)  $1^n$
- D)  $2^{n+1}$

**Answer: A)  $2^n$**

343. Which material is used to make photo resistors (LDR)?

- A) Germanium
- B) Silicon
- C) Aluminium
- D) Cadmium sulfide

**Answer: D) Cadmium sulfide**

344. Which measuring instrument is used to check the working condition of a photo resistor (LDR)?

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

**Answer: A) Ohmmeter**

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

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

**Answer: B) Move the victim to a ventilated place**

346. Which parameter of the wire is directly proportional to the current carrying capacity?

- A) Wire resistance
- B) Conductor s diameter
- C) Passing current
- D) Conductor s shape

**Answer: B) Conductor s diameter**

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

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

**Answer: A) Memory**

348. Which method is followed to troubleshoot the problem causing section by the symptom?

- A) Sensory test method
- B) Logical approach method
- C) Step by step method
- D) Trial and error method

**Answer: B) Logical approach method**

349. What is the specified Vcc voltage of 4 bit digital switch with 4 independent lines?

- A) 2.3 V to 3.6 V
- B) 5.0 V to 7.5 V
- C) 1.5 V to 2.2 V
- D) 4.5 V to 5.5 V

**Answer: D) 4.5 V to 5.5 V**

350. What is the minimum current rating of four diode bridge rectifier to supply load current of 1.8 Amp?

- A) 1.8 Amp
- B) 0.9 Amp
- C) 5.0 Amp
- D) 2.0 Amp

**Answer: A) 1.8 Amp**

**351.** Which type of packaging is used to transistors utilized for medium power amplification?

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

**Answer: A) Plastic packaging with metal heatsinks**

**352.** What is the use of schmitt trigger circuit?

- A) AC to DC converter
- B) AC to DC converter
- C) Voltage regulator
- D) Electronic thermostant

**Answer: A) AC to DC converter**

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

- A) IDE port
- B) Floppy drive port
- C) Com 1 port
- D) Com 2 port

**Answer: A) IDE port**

**354.** 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) Current leads voltage by 90 Degree
- C) Voltage leads current by 45 Degree
- D) Voltage lags current by 45 Degree

**Answer: C) Voltage leads current by 45 Degree**

**355.** What is the function of pin number 4 of the IC 555?

- A) Threshold
- B) Set
- C) Reset
- D) Reset

**Answer: C) Reset**

**356.** What is the name of flux used for soldering electronic components?

- A) Resin
- B) Mild acid
- C) Rosin
- D) Organic acid

**Answer: C) Rosin**

**357.** What is the function of clipper circuit?

- A) Rectification
- B) Amplification
- C) Regulation
- D) Wave shaping

**Answer: D) Wave shaping**

**358.** What is the name of the process of converting AC into DC voltage?

- A) Rectifying
- B) Amplifying
- C) Inverting
- D) Demodulating

**Answer: A) Rectifying**

**359.** Which is the property of IGBT?

- A) Significant power consumption
- B) High efficiency and fast switching
- C) Low input impedance
- D) Low gate signal

**Answer: B) High efficiency and fast switching**

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

- A) Seven
- B) One
- C) Four
- D) Eight

**Answer: C) Four**

**361.** What is the range of output voltage of regulator IC LM 317?

- A) 0 to 25 V
- B) 0 to 32 V
- C) 0 to 30 V
- D) 1.2 V to 32 V

**Answer: D) 1.2 V to 32 V**

**362.** What is the colour code for 100 Ohm resistor?

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

**Answer: A) Brown, black, brown**

**363.** Which insulation layer is used in MOSFET?

- A) Silicon-di-oxide
- B) Germanium material
- C) Antimony material
- D) Arsenic material

**Answer: A) Silicon-di-oxide**

**364.** How can you confirm a transistor as defective?

- A) By ohm meter testing
- B) By voltage measurements
- C) By physical testing
- D) By circuit testing

**Answer: A) By ohm meter testing**

**365.** How the thick layers of oxide is removed before doing the soldering activity?

- A) Use Isopropyl Alcohol
- B) Apply flux
- C) Use abrasive method
- D) Clean normally

**Answer: C) Use abrasive method**

**366.** Which type of defects are occurring in solid state relays?

- A) Tendency to fail open
- B) Intermittent working
- C) Tendency to fail shorted
- D) More sparking

**Answer: C) Tendency to fail shorted**

**367.** What is the electrolyte level maintained above the top of the plates in lead acid battery cells?

- A) 16 mm to 25 mm
- B) 5 mm to 8 mm
- C) 10 mm to 15 mm
- D) 2 mm to 4 mm

**Answer: C) 10 mm to 15 mm**

**368.** What is the type of transistor BPX81?



**386.** When does the biased negative clipper removes the portion of input signal?

- A) Signal voltage equals the bias battery voltage
- B) Signal voltage is lesser than bias battery voltage
- C) During the positive half cycle of input
- D) Signal voltage becomes greater than bias battery voltage

**Answer: D) Signal voltage becomes greater than bias battery voltage**

**387.** What is the function of opto-coupler in the switching operation of digital input signal?

- A) Converts voltage into current
- B) Defects the operation of switching signal
- C) Produces electrical noise signal
- D) Amplifier the signal

**Answer: B) Defects the operation of switching signal**

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

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

**Answer: B) Unpleasant tingling sensation**

**389.** Which is the major factor determines the quality performance of A/D converter?

- A) Measuring parameter
- B) Measuring parameter
- C) Conversion cycle
- D) Depends on data latch

**Answer: A) Measuring parameter**

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

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

**Answer: C) NPN has higher switching speed**

**391.** What is the unit of electric charge?

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

**Answer: B) Coulomb**

**392.** Which gauge number of rosin-cored solder is suitable for soldering medium sized joints?

- A) 22 gauge rosin cored
- B) 18 gauge rosin cored
- C) 24 gauge rosin cored
- D) 16 gauge rosin cored

**Answer: B) 18 gauge rosin cored**

**393.** What is the use of photo transistor?

- A) Used as light controlled switch
- B) Used as oscillator

- C) Used as demodulator
- D) Used in comparator circuit

**Answer: A) Used as light controlled switch**

**394.** Which tool is used for the simplest method of skinning wires?

- A) Electrician's knife
- B) Mechanical wire stripper
- C) Thermal wire stripper
- D) Manual wire stripper

**Answer: A) Electrician's knife**

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

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

**Answer: A) Steel toe caps**

**396.** What is the package type for BF 245B?

- A) TO-82
- B) TO-72
- C) TO-102
- D) TO-92

**Answer: D) TO-92**

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

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

**Answer: C) 110**

**398.** Which battery is used for cellular phones?

- A) Sodium sulphur
- B) Nickel ion
- C) Lithium ion
- D) Zinc chloride

**Answer: C) Lithium ion**

**399.** Which circuit is determined by the frequency of LC tank circuit?

- A) Multiplexed
- B) Oscillator
- C) Demodulator
- D) Amplifier

**Answer: B) Oscillator**

**400.** What is the maximum forward gate current ( $I_g$ ) for BFW10 JFET?

- A) 10 mA
- B) 20 mA
- C) 8 mA
- D) 5 mA

**Answer: A) 10 mA**

**401.** Which material is used as electrical insulator?

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

**Answer: B) Porcelain**

**402.** Which material conducts electricity?

- A) Paper
- B) Mica

C) Glass D) Copper

**Answer: D) Copper**

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

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

**Answer: B) Band 9**

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

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

**Answer: D) Fast recovery diode**

**405.** How batteries are classified based on their working?

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

**Answer: B) Primary cells and secondary cells**

**406.** Which parameter is measured by a multimeter?

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

**Answer: D) Voltage**

**407.** What are the fundamental properties of insulation materials?

A) Low resistance and thermal heat B) Length and cross sectional area  
C) Insulation resistance and dielectric strength D) Temperature and electrical hazards

**Answer: C) Insulation resistance and dielectric strength**

**408.** What is the effect on a secondary cell supplying current to the load?

A) Discharging B) Charging  
C) Leaking D) Unloading

**Answer: A) Discharging**

**409.** What is the purpose of trimmer capacitor?

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

**Answer: C) Fine tuning**

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

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

**Answer: D) 0.94**

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

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

**Answer: C) Remove residual flux and prevent corrosion**

**412.** Which is the package type for the JFET BFW10?

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

**Answer: D) TO-72**

**413.** Which electrical parameter opposes the flow of electrons?

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

**Answer: A) Resistance**

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

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

**Answer: D) To achieve uniformity of scale**

**415.** What is the function of solid state relay(SSR)?

A) High frequency oscillator B) High gain amplifier  
C) Low pass filter D) High speed switching

**Answer: D) High speed switching**

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

A) RF amplifier B) Voltage amplifier  
C) IF amplifier D) Power amplifier

**Answer: D) Power amplifier**

**417.** Which parameter is maintained constant in zener diode?

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

**Answer: B) Voltage**

**418.** What type of arrangement is required to sustain the oscillations of the oscillator circuit?

A) Provide negative feedback B) Increase the bias voltage  
C) Provide regenerative feedback D) Increase the value of inductor

**Answer: C) Provide regenerative feedback**

**419.** Which condition the mechanical zero error occur in panel meters?

A) At load connected condition

B) At load connected condition

C) At normal condition

D) At voltage connected condition

**Answer: C) At normal condition**

**420.** Which IC is used for the function of 4 bit shift register?

A) IC 7447

B) IC 7493

C) IC 7404

D) IC 7495

**Answer: D) IC 7495**

**421.** What is the shape of mandatory signs?

A) Circular

B) Rectangular

C) Square

D) Triangular

**Answer: A) Circular**

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

A) Leads to interwinding leakage

B) Transformer heated up excessively

C) Delivers reduced secondary voltage

D) Burn out windings

**Answer: C) Delivers reduced secondary voltage**