

Duration: 30 Mins

Total Marks: 422

Q.ID: ITISKILL0318JV

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

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

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

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

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

**Answer: D) Input terminal**

3. Which is the N - channel FET?

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

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

4. What is the limitation of integrated circuits?

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

**Answer: C) Greater flexibility**

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

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

**Answer: A) 1.7 V**

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

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

**Answer: C) Relaxation oscillator**

7. What is the natural shape of a quartz crystal?

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

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

8. What is the reason for electric fire?

A) Proper earthing

B) Deviation

C) Overloading

D) Open circuit

**Answer: C) Overloading**

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

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

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

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

- A) Lamp is ON at 100 Degree Centigrade  
 B) Lamp is ON at 320 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**

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

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

**Answer: D) Circuit work space**

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

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

**Answer: B) Cooler fan**

13. What type of control is used for FET?

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

**Answer: B) Voltage controlled device**

14. What is the advantage of PIN photo diodes?

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

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

15. What is the colour of positive electrode in fully charged

lead acid battery?

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

**Answer: B) Reddish brown**

16. Which circuit is determined by the frequency of LC tank circuit?

- A) Oscillator
- B) Multiplexed
- C) Amplifier
- D) Demodulator

**Answer: A) Oscillator**

17. Which electrical parameter opposes the flow of electrons?

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

**Answer: B) Resistance**

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

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

**Answer: B) Zinc**

19. Which circuit photo SCR opto couplers are used?

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

**Answer: A) AC powered circuits**

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

- A) Doping
- B) Diffusion
- C) Etching
- D) Forming

**Answer: A) Doping**

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

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

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

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

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

**Answer: D) 2.5 V**

23. What is the maximum emitter to base voltage  $V_{EB}$  (max) for the transistor BC 147?

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

**Answer: B) 6V**

24. What is the resonant frequency range of a crystal?

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

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

25. How gate is biased in JFET?

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

**Answer: D) Reverse biased**

26. Which cores are used in intermediate frequency transformers?

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

**Answer: B) Ferrite**

27. How the negative feedback is called?

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

**Answer: C) Degenerative feedback**

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

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

**Answer: D) Dull grainy surface**

29. Which torque is used in PMMC meter movement?

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

**Answer: B) Moderate torque**

30. 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**

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

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

**Answer: A) Radio receivers**

32. What should be the time constant  $t = RC$  for a good clamper circuit with reference to time period of the input signal?

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

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

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

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

**Answer: C) Poor switching speed**

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

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

**Answer: D) 30 V**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Answer: C) High efficiency**

**41.** What is the maximum drain current  $I_D$  for BFW10?

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

**Answer: C) 20 mA**

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

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

**Answer: A) Few micro Amperes**

**43.** What is the additional advantage of rosin flux used for soldering electronic components?

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

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

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

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

**Answer: B) Capacitor Input filter**

**45.** What are the fundamental properties of insulation materials?

- A) Insulation resistance and dielectric strength
- B) Low resistance and thermal heat
- C) Length and cross sectional area
- D) Temperature and electrical hazards

**Answer: A) Insulation resistance and dielectric strength**

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

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

**Answer: D) Electrodes**

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

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

**Answer: D) Plastic packaging**

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

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

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

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

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

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

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

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

**Answer: B) 100 Amp**

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

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

**Answer: D) Partition table**

52. Which codes are stored in computer ROM BIOS chip?

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

**Answer: D) Permanent codes**

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

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

**Answer: C) Uses split capacitor**

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

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

**Answer: C) Spring control**

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

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

**Answer: D) 25 H**

56. Why the plunger desoldering tool needs periodical cleaning?

- A) To melt the solder quickly
- B) To remove the flux collected in chamber

- C) To prevent clogging of the nozzle
- D) To help the joint to be soldered

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

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

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

**Answer: C) Fast switching**

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

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

**Answer: A) 10 mA**

59. Which IC is used for the function of 4 bit shift register?

- A) IC 7404  
C) IC 7447
- B) IC 7495  
D) IC 7493

**Answer: B) IC 7495**

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

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

**Answer: A) Fast recovery diode**

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

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

**Answer: C) 0.56**

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

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

**Answer: B) 10 mA**

63. What is the shape of prohibition sign?

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

**Answer: C) Circular**

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

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

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

65. Which current flows in TRIAC between MT1 and MT2?

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

**Answer: B) Principal current**

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

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

**Answer: C) Electric current**

67. What is the purpose of trimmer capacitor?

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

**Answer: A) Fine tuning**

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

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

**Answer: D) Use abrasive method**

69. What is the full of the abbreviation DPDT used in switches?

- A) Dual Phase Dual Throw
- B) Double Pole Direct Throw
- C) Direct Pole Double Throw
- D) Double Pole Double Throw

**Answer: D) Double Pole Double Throw**

70. At which temperature the 6040 solder start meeting?

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

**Answer: A) 200 Degree Centigrade**

71. How the insulators are called?

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

**Answer: A) Dielectrics**

72. 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)**

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

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

**Answer: A) 2.0 A**

74. What is the advantage of MOSFET?

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

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

75. How the sensitivity of voltmeter is determined?

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

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

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

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

**Answer: B) Rosin**

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

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

**Answer: A) Logical approach method**

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

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

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

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

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

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

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

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

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

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

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

**Answer: C) TO-72**

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

- A) Left clicking
- B) Right clicking

- C) Drag and drop                      D) Double clicking

**Answer: C) Drag and drop**

**83.** What is the effect on a secondary cell supplying current to the load?

- A) Unloading                              B) Discharging  
C) Charging                                D) Leaking

**Answer: B) Discharging**

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

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

**Answer: C) Accuracy**

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

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

**Answer: D) Silicon material used**

**86.** 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**

**87.** 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**

**88.** What are the uses of simulation softwares?

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

**Answer: C) Design and test a circuit**

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

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

**Answer: D) 110**

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

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

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

**91.** What is the phase relationship between the applied

voltage and current in the primary of a transformer with open secondary winding?

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

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

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

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

**Answer: C) Cascaded amplifier**

**93.** Which type of voltage regulator is IC 723?

- A) Three pin positive voltage regulator    B) Three pin negative voltage regulator  
C) Three pin adjustable voltage regulator    D) Multipin variable voltage regulator

**Answer: C) Three pin adjustable voltage regulator**

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

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

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

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

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

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

**96.** What is successive approximation (SAR)?

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

**Answer: A) Method of D/A conversion**

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

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

**Answer: C) JEDEC standard**

**98.** 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**

99. What is the advantage of IGBT?

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

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

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

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

**Answer: D) Isopropyl alcohol**

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

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

**Answer: D) Wrong lifting technique**

102. How gate is biased in JFET?

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

**Answer: C) Reverse biased**

103. Which device generates high frequency radio frequency interferences by the extremely rapid turn-ON time?

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

**Answer: B) TRIAC**

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

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

**Answer: B) TO-92**

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

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

**Answer: B) Gallium**

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

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

**Answer: D) 6.666 Ohms**

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

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

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

108. Which class of amplifier uses fixed bias because of its important advantage of transistor will never go to saturation?

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

**Answer: C) Class - A**

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

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

**Answer: C) Aluminium frame**

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

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

**Answer: A) Standard wire gauge**

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

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

**Answer: A) Lead selenide**

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

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

**Answer: B) Diode and resistor**

113. What type of feedback is used by the Wein-bridge oscillator to oscillate the signal?

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

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

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

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

**Answer: B) 2.5 V**

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

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

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

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

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

**Answer: A) Heat**

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

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

**Answer: A) Triangular wave output**

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

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

**Answer: D) 6000 V**

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

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

**Answer: C) Hook up wire**

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

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

**Answer: C) To produce oscillation**

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

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

**Answer: C) Capacitive reactance**

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

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

**Answer: D) 1000 milli watts**

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

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

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

**124.** Which bonding material is used for soldering a joint?

- A) Grease  
C) Acid
- B) Oil  
D) Flux

**Answer: D) Flux**

**125.** What is the result of forced air is blown to cool the joint

while soldering?

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

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

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

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

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

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

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

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

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

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

**Answer: B) 1000 and above**

**129.** Find the value of shunt resistance required for 1 mA meter to extend the range and measure 10 mA ( $R_M = 27 \text{ Ohm}$ ) ?

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

**Answer: B) 3 Ohms**

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

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

**Answer: B) Topping up**

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

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

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

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

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

**Answer: C) Photo resistors**

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

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

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

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

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

**Answer: D) Fast switching speed**

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

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

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

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

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

**Answer: C) Excessive contact current**

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

- A) More sparking
- B) Tendency to fail open
- C) Intermittent working
- D) Tendency to fail shorted

**Answer: D) Tendency to fail shorted**

**138.** What is the unit of electric charge?

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

**Answer: B) Coulomb**

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

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

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

**140.** What is the name of instrument used to measure electrical quantities?

- A) Vernier caliper
- B) Tester
- C) Tester
- D) Meter

**Answer: D) Meter**

**141.** What is the percentage of charge accumulated by the capacitor at the end of 2 time constant limit?

- A) 0.632
- B) 0.864
- C) 0.4
- D) 0.5

**Answer: B) 0.864**

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

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

**Answer: A) Increased temperature**

**143.** 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**

**144.** Which material is used as electrical insulator?

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

**Answer: D) Porcelain**

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

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

**Answer: A) About 50%**

**146.** What is the input impedance of darlington pair transistors?

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

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

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

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

**Answer: D) Very high**

**148.** Which parameter is measured by a multimeter?

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

**Answer: A) Voltage**

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

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

**Answer: A) Current**

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

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

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

151. When does the biased negative clipper removes the portion of input signal?

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

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

152. Which energy is converted into electrical energy in hydropower stations?

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

**Answer: D) Mechanical energy**

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

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

**Answer: C) TO-92**

154. Which type of soldering is used for electronic circuit?

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

**Answer: D) Soft soldering**

155. What is the unit of electric charge?

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

**Answer: A) Coulomb**

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

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

**Answer: A) Ohmmeter**

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

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

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

158. 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**

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

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

**Answer: D) PIV voltage**

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

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

**Answer: D) 2.2 V**

161. How the stationary electric charges are called?

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

**Answer: A) Static charges**

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

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

**Answer: A) Higher thermal stability**

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

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

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

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

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

**Answer: C) Memory**

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

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

**Answer: A) 1.8 V**

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

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

**Answer: A) Jewelled bearings**

167. Which is the transistor used to operate the Colpitts oscillator?

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

**Answer: B) BF 194B**

168. How the drive circuits for the power MOSFETs are coupled?

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

**Answer: C) Using pulse transformer**

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

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

**Answer: A) Gelled electrolyte**

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

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

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

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

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

**Answer: B) Power Amplifier**

172. What is the advantage of IGBT?

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

**Answer: C) Low driving power**

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

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

**Answer: B) Cadmium sulfide**

174. How power rating is specified for transformers?

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

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

175. What is the purpose of wood rasp file?

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

**Answer: B) Preliminary rough work**

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

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

**Answer: C) Measuring parameter**

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

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

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

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

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

**Answer: C) 2 V**

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

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

**Answer: B) Calibration**

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

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

**Answer: B) Power amplifier**

181. Which is electronic simulation software?

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

**Answer: D) Macspice**

182. What is the use of clamper in electronic circuits?

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

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

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

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

**Answer: A) Pulse repetition frequency**

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

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

**Answer: C) 1.5 VDC**

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

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

**Answer: A) Class D**

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

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

**Answer: C) Reset**

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

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

**Answer: B) Plastic cell**

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

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

**Answer: B) Jet of water**

**189.** Which battery is used for cellular phones?

- A) Lithium ion
- B) Nickel ion
- C) Sodium sulphur
- D) Zinc chloride

**Answer: A) Lithium ion**

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

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

**Answer: B) Two**

**191.** What is stationary electric charges?

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

**Answer: A) Static charges**

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

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

**Answer: B) 30 V**

**193.** What is the propagation delay of the standard TTL chip?

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

**Answer: C) 10 ns**

**194.** What is the specific gravity of concentrated sulphuric acid?

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

**Answer: C) 1.835**

**195.** 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**

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

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

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

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

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

**Answer: D) Silver**

**198.** 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) 3.567 v
- B) 2.134 v
- C) 1.525 v
- D) 0.213 v

**Answer: D) 0.213 v**

**199.** What is the main application of photo resistor?

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

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

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

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

**Answer: B) 6.5 mm**

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

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

**Answer: C) Clamper circuit**

**202.** How batteries are classified?

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

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

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

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

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

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

- A) Higher switching repetition rates
- B) Suitability for medium power applications
- C) Higher driving power requirement
- D) Low switching speed

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

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

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

**Answer: B) 300 mw**

**206.** What is the important feature of instrumentation amplifier?

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

**Answer: A) Low gain accuracy**

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

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

**Answer: C) Number of bits used**

**208.** Which step is important for soldering a joint?

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

**Answer: A) Heating the joint**

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

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

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

**210.** What will happen when the forward bias voltage across the PN junction is increased excessively?

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

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

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

- A) MI meter - Repulsion type
- B) Thermo couple meter
- C) MI meter - attraction type
- D) PMMC meter

**Answer: D) PMMC meter**

**212.** What is the advantage of photo transistors over photo diodes?

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

**Answer: B) Considerable greater sensitivity**

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

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

**Answer: B) Negative clamping circuit**

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

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

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

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

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

**Answer: D) Binary values**

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

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

**Answer: D) Insulation resistance**

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

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

**Answer: C) By built-in calibration signal**

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

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

**Answer: C) Focus**

219. Electrical conductivity of gold is

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

**Answer: A) 67%**

220. Which part of the relay causes most trouble?

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

**Answer: D) Relay contacts**

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

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

**Answer: C) Memory**

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

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

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

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

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

**Answer: A) Power good signal**

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

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

**Answer: B) Dry powdered**

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

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

**Answer: A) Dry solder joint**

226. What is the function of opto-coupler in the switching operation of digital input signal?

- A) Amplifier the signal
- B) Produces electrical noise signal
- C) Defects the operation of switching signal
- D) Converts voltage into current

**Answer: C) Defects the operation of switching signal**

227. Which memory device loses data on power failure?

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

**Answer: B) RAM**

228. 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)  $I_C / I_E$**

229. 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 independent of current direction
- D) Deflection is inversely proportional to current

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

230. What is the use of flip - flop?

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

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

231. Which unit is used to measure capacitance value?

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

**Answer: B) Farad**

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

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

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

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

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

**Answer: B) 30 V**

234. What is the electrolyte level maintained above the top of the plates in lead acid battery cells?

- A) 5 mm to 8 mm
- B) 10 mm to 15 mm
- C) 2 mm to 4 mm
- D) 16 mm to 25 mm

**Answer: B) 10 mm to 15 mm**

235. 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 at mid point  
C) Quiescent current beyond the cut-off point  
D) Quiescent current over the cut-off value

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

**236.** What is the use of photo transistor?

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

**Answer: C) Used as light controlled switch**

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

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

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

**238.** Where does the depletion region exist in a bipolar transistor?

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

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

**239.** When does the complementary metal oxide type MOSFET configuration consume power?

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

**Answer: C) During switching**

**240.** Which electrolyte is used in lead-acid battery?

- A) Alkaline solution  
B) Zinc chloride  
C) Potassium hydroxide solution  
D) Sulphuric acid

**Answer: D) Sulphuric acid**

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

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

**Answer: A) Blow horn stake**

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

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

**Answer: D) Steel toe caps**

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

- A) Negative clamping circuit  
B) Peak clipper circuit

- C) Combination clipper circuit  
D) Positive clamping circuit

**Answer: D) Positive clamping circuit**

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

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

**Answer: C) Brazing**

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

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

**Answer: A) Large block accessing**

**246.** What is the use of screw driver?

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

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

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

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

**Answer: D) 27%**

**248.** How are batteries 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

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

**249.** What is the typical forward voltage drop of the yellow colour LED?

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

**Answer: D) 2.1 V**

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

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

**Answer: C) High input impedance**

**251.** Why are transistors made of silicon preferred over the germanium semiconductor material?

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

**Answer: D) Higher thermal stability**

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

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

**Answer: B) Few micro Amperes**

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

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

**Answer: D) Using analysis menu**

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

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

**Answer: B) LM 317**

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

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

**Answer: D) 1.8 Amp**

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

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

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

**257.** Rate of change of input voltage

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

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

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

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

**Answer: D) Henry**

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

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

**Answer: B) Triangular shape**

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

- A) Regulation
- B) Rectification

- C) Wave shaping
- D) Amplification

**Answer: C) Wave shaping**

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

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

**Answer: D) Arsenic**

**262.** 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 achieve uniformity of scale
- D) To generate heat

**Answer: C) To achieve uniformity of scale**

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

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

**Answer: C) Light dependent resistor**

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

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

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

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

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

**Answer: D) Square wave**

**266.** What is the current gain of a common emitter base amplifier?

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

**Answer: D) Less than 1**

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

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

**Answer: A) Remove residual flux and prevent corrosion**

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

- A) Practically zero
- B) Practically infinity

- C) Practically very low      D) Practically unity

**Answer: A) Practically zero**

**269.** What is the shape of standard wire gauge?

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

**Answer: A) Circular metal disk**

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

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

**Answer: C) Random Access Memory**

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

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

**Answer: A) IC 7905**

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

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

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

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

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

**Answer: B) Control grid**

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

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

**Answer: B) Current**

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

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

**Answer: A) B3202**

**276.** 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)  $6.25 \times 10^{18}$  electrons      D)  $6.25 \times 10^{12}$  electrons

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

**277.** Which electrical property opposes the flow of electrons?

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

**Answer: B) Resistance**

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

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

**Answer: A) 40%**

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

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

**Answer: A) Ohm meter**

**280.** Which is the output pin number IC 555 timer?

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

**Answer: B) Pin number 3**

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

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

**Answer: C) Unpleasant tingling sensation**

**282.** How the pass band gain of the circuit is expressed?

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

**Answer: B) In hertz**

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

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

**Answer: C) Delivers reduced secondary voltage**

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

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

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

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

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

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

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

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

**Answer: A) Break over voltage**

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

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

**Answer: A) High input impedance**

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

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

**Answer: C) 5 time constants**

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

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

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

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

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

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

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

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

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

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

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

**Answer: B) Memory circuits**

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

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

**Answer: A) Printing the valves**

**294.** What is the maximum drain current,  $I_D$  for BF 245B?

- A) 15mA
- B) 35mA
- C) 45mA
- D) 25mA

**Answer: D) 25mA**

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

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

**Answer: D) Rectifying**

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

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

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

**297.** What is the full form of the abbreviation PMMC meter?

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

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

**298.** 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**

**299.** Which is the package type for the JFET BFW10?

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

**Answer: B) TO-72**

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

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

**Answer: C) Trigger**

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

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

**Answer: B) Biased negative clipper**

**302.** Which type of transistors are required to amplify signals

from the microphone /transducer?

- A) Low power transistors
- B) High power transistors
- C) Epitaxial versa watt transistors
- D) Medium power transistors

**Answer: A) Low power transistors**

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

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

**Answer: D) Permanent magnetic fields**

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

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

**Answer: B) It disturbs the chemical bonding take place**

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

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

**Answer: A) Absolute conversion accuracy**

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

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

**Answer: D) Alt + F4**

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

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

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

**308.** How many alternating layers are there in IGBT?

- A) 3 layers
- B) 2 layers
- C) 4 layers
- D) Single layer

**Answer: C) 4 layers**

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

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

**Answer: D) Inductor**

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

- A) Using Safety resistor
- B) By the fuse

- C) By soft start circuit
- D) Using MCB

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

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

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

**Answer: B) Sheet metal**

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

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

**Answer: A) USB port**

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

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

**Answer: D) Power supplies**

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

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

**Answer: A) Practically zero**

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

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

**Answer: C) Capacitive reactance**

**316.** Which gauge number of rosin-cored solder is suitable for soldering medium sized joints?

- A) 18 gauge rosin cored
- B) 22 gauge rosin cored
- C) 24 gauge rosin cored
- D) 16 gauge rosin cored

**Answer: A) 18 gauge rosin cored**

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

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

**Answer: C) Series**

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

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

**Answer: C) BT136**

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

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

**Answer: B) Ohm meter**

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

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

**Answer: C) Multi sim**

**321.** Which metal coating is used on compact disk?

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

**Answer: D) Aluminium**

**322.** What is the term stands for TRIAC?

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

**Answer: C) Triode AC semiconductor**

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

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

**Answer: B) DC circuits**

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

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

**Answer: D) Industry Standard Architecture**

**325.** Which parameter is maintained constant in zener diode?

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

**Answer: D) Voltage**

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

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

**Answer: A) Four**

**327.** 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-mouth method    D) Mouth-to-nose method

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

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

- A) 1                                  B) 0.67

- C) 0.94                              D) 0.56

**Answer: A) 1**

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

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

**Answer: C) Insulators**

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

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

**Answer: A) 90**

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

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

**Answer: C) Printer**

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

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

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

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

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

**Answer: C) Smothering**

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

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

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

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

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

**Answer: C) 20 MA**

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

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

**Answer: D) Thyristor and transistors**

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

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

**Answer: C) Current**

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

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

**Answer: D) Silver**

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

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

**Answer: D) Common emitter configuration**

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

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

**Answer: A) Conductor s diameter**

341. What is the cause of burnt relay contacts?

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

**Answer: D) Excessive contact current**

342. What is the purpose of using IC74LS190?

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

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

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

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

**Answer: D) Directly proportional**

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

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

**Answer: B) Negative resistance characteristics**

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

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

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

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

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

**Answer: D) Metal oxide varistor**

347. Which value is equal to one picofarad?

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

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

348. What is the main advantages of IGBT over BJT?

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

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

349. Which tool works on the principle of air suction?

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

**Answer: B) Desoldering pump**

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

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

**Answer: C) NPN has higher switching speed**

351. 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**

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

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

**Answer: A) 9 VDC**

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

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

**Answer: A) Exactly 300 Mw**

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

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

**Answer: D) Cadmium sulfide**

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

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

**Answer: A) Combination clipper circuit**

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

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

**Answer: A) 74 LS 138**

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

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

**Answer: C) 0.94**

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

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

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

**359.** 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

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

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

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

**Answer: A) 1.4 V**

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

- A) Supply power to loads                      B) To decrease load current

- C) To protect the load from arcing                      D) To increase load current

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

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

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

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

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

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

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

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

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

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

**365.** Which factor determines the inductance value?

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

**Answer: A) Diameter of the coil**

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

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

**Answer: B) Mutual induction**

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

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

**Answer: D) Relaxation oscillator**

**368.** 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

**Answer: B) Pulse repetition**

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

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

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

**370.** 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**

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

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

**Answer: C) 1000 kW**

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

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

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

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

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

**Answer: B) Signal diodes**

**374.** What is the power dissipation of the standard TTL chip?

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

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

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

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

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

**376.** What type of arrangement is required to sustain the oscillations of the oscillator circuit?

- A) Increase the bias voltage      B) Provide negative feedback  
C) Provide regenerative feedback      D) Increase the value of inductor

**Answer: C) Provide regenerative feedback**

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

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

**Answer: B) One time constant**

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

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

**Answer: D) SCR**

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

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

**Answer: C) 1.8 V**

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

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

**Answer: B) Class B fire**

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

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

**Answer: B) 100 Hz**

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

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

**Answer: B) 0.1 A**

**383.** 6 What is the input impedance of IGBT?

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

**Answer: D) High**

**384.** 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**

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

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

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

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

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

**Answer: A) Band 9**

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

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

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

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

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

**Answer: B) Principal current**

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

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

**Answer: B) BT136**

**390.** What is the term stands for TRIAC?

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

**Answer: D) Triode AC semiconductor**

**391.** Which material conducts electricity?

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

**Answer: A) Copper**

**392.** 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**

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

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

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

**394.** Which tool is used for the simplest method of skinning wires?

- A) Thermal wire stripper
- B) Manual wire stripper
- C) Mechanical wire stripper
- D) Electrician's knife

**Answer: D) Electrician's knife**

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

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

**Answer: D) LCR bridge**

**396.** What is the function of solid state relay(SSR)?

- A) High speed switching
- B) High frequency oscillator
- C) High gain amplifier
- D) Low pass filter

**Answer: A) High speed switching**

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

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

**Answer: B) All program**

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

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

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

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

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

**Answer: C) MODEM**

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

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

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

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

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

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

**402.** Which formula is used to find the conductance?

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

**Answer: D)  $I / V$**

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

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

**Answer: C) Protection against weather**

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

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

**Answer: B) IDE port**

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

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

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

**406.** What is the shape of mandatory signs?

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

**Answer: D) Circular**

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

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

**Answer: C) 5A**

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

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

**Answer: C) 5**

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

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

**Answer: C) FET**

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

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

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

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

- A) Break down voltage
- B) Knee voltage

- C) Forward break down voltage
- D) PIV voltage

**Answer: D) PIV voltage**

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

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

**Answer: D) Cold joint**

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

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

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

**414.** What is the type of transistor BPX81?

- A) NPN - Photo transistor
- B) PNP - Photo transistor
- C) Audio frequency transistor
- D) Uni - Junction transistor

**Answer: A) NPN - Photo transistor**

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

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

**Answer: B) Capacitor**

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

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

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

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

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

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

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

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

**Answer: C) Notches**

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

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

**Answer: C) Conductor s diameter**

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

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

**Answer: D) 90 Degree**

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

- A) Gallium and indium              B) Silicon and germanium

- C) Arsenic and antimony              D) Silver and aluminium

**Answer: B) Silicon and germanium**

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

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

**Answer: B) FET**

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