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Q. ID: ITISKILL0318JV

February 2026 | **Govt ITI Tagaduru** | Question Paper

Duration: 30 Mins | **Total Marks: 422** | **ID: ITISKILL0318JV**

Student Name: _____ Roll No: _____

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

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

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

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

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

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

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

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

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

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

6. What is the purpose of trimmer capacitor?

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

7. 6 What is the input impedance of IGBT?

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

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

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

9. Which meter uses a moving coil for measurement?

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

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

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

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

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

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

A) 3ⁿ
B) 2ⁿ
C) 1ⁿ
D) 2ⁿ⁺¹

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

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

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

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

15. What is the use of schmitt trigger circuit?

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

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

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

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

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

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

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

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

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

20. What is the advantage of using digital multimeter?

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

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

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

22. What is the colour of positive electrode in fully charged lead acid battery?

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

23. Why transistors made of silicon is 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

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

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

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

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

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

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

27. Which material is used for making instrument cabinets?

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

28. What is the type of transistor BPX81?

A) NPN - Photo transistor
B) PNP - Photo transistor
C) Audio frequency transistor
D) Uni - Junction transistor

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

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

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

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

31. Which formula is used to find the conductance?

A) I x R
B) V / I
C) Q / V
D) I / V

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

A) Measure the rated output voltage
B) Test the dimensional accuracy
C) Verify the rated power delivery
D) Test I2R power loss in the battery cell

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

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

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

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

35. 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

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

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

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

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

38. What is the full form of the abbreviation MOSFET?

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

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

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

40. What is the unit of electric charge?

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

41. 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

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

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

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

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

44. 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

45. Which type of transistors are required to amplify signals from the microphone /transducer?

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

46. Which type of voltage regulator is IC 723?

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

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

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

48. What is the effeciency transformer coupled class A amplifier?

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

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

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

50. What is the drawbacks of LDR?

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

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

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

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

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

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

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

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

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

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

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

56. How the negative feedback is called?

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

57. What is the function of clipper circuit?

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

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

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

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

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

60. What are the fundamental properties of insulation materials?

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

61. Which of the device is opto-coupled TRIACS?

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

62. Which component filter the ripples in the rectifier circuit?

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

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

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

64. Which unit is used to measure capacitance value?

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

65. What is the function of solid state relay(SSR)?

A) Low pass filter
B) High speed switching
C) High frequency oscillator
D) High gain amlifier

66. How many alternating layers are there in IGBT?

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

67. What is the use of photo transistor?

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

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

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

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

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

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

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

71. Which electrical parameter is measured by the megger?

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

72. Which insulation layer is used in MOSFET?

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

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

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

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

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

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

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

76. What is the maximum forward gate current (Ig) for BFW10 JFET?

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

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

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

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

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

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

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

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

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

81. Which circuit uses photo-darlington devices?

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

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

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

83. Which circuit uses the enhancement type MOSFET?

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

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

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

85. What is the purpose of wood rasp file?

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

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

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

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

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

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

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

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

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

90. Which is the combination of photo transistor?

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

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

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

92. Which parameter is maintained constant in zener diode?

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

93. What is successive approximation (SAR)?

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

94. Which type of amplifier in used to operate the loud speaker?

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

95. Which memory device loses data on power failure?

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

96. Which device is a unipolar transistor?

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

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

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

98. Which angle is checked by the try square?

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

99. At which temperature the 6040 solder start meeting?

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

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

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

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

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

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

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

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

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

104. What is the input impedance of IGBT?

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

105. Which bonding material is used for soldering a joint?

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

106. Which diode is used in low power communication circuits?

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

107. What is stationary electric charges?

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

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

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

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

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

110. Which electrical property opposes the flow of electrons?

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

111. Which is the property of IGBT?

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

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

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

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

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

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

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

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

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

116. 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 increase to 1 Kilo Ohm
C) Resistance will increase to around 1 Mega Ohm
D) Resistance will decrease to 10 Ohm

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

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

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

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

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

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

120. What is the main application of photo resistor?

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

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

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

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

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

123. How to improve the frequency stability in oscillator circuits?

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

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

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

125. 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

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

A) 6.25 x 1018 electrons
B) 6.25 x 1012 electrons
C) 6.25 x 108 electrons
D) 6.25 x 1016 electrons

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

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

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

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

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

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

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

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

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

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

132. 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

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

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

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

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

135. What is the shape of warning sign board?

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

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

A) Leakage current
B) Conventional current

C) Reverse current D) Principal current

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

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

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

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

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

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

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

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

141. Which cores are used in intermediate frequency transformers?

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

142. Which application the clamper circuit is used in electronics?

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

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

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

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

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

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

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

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

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

147. 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

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

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

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

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

150. What is the input impedence of darlington pair transistors?

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

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

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

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

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

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

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

154. What are the uses of simulation softwares?

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

155. What is the shape of standard wire gauge?

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

156. How power rating is specified for transformers?

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

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

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

158. Which parameter is measured by a multimeter?

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

159. Which is the drain current (Id) in JFET?

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

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

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

161. Which materials are used for semiconductor?

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

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

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

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

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

164. What in the current gain of a common ? base amplifier?

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

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

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

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

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

167. What is the purpose of using IC74LS190?

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

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

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

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

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

170. How batteries are classified?

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

171. Which circuit photo SCR opto couplers are used?

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

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

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

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

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

174. Electrical conductivity of gold is

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

175. What is the minimum forward current If for single colour LEDs?

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

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

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

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

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

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

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

179. What is the advantage of MOSFET?

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

180. 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

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

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

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

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

183. What is the advantage of PIN photo diodes?

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

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

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

185. What is the use of flip - flop?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

195. 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

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

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

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

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

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

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

199. Which is electronic simulation software?

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

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

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

201. 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

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

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

203. What is the code number of TRIAC?

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

204. Which torque is used in PMMC meter movement?

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

205. 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

206. How the gas and liquefied gases are classified

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

207. What is characteristics of instrumentation amplifier?

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

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

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

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

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

210. Which component opposes any change in current?

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

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

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

212. What is the advantage of MOSFET?

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

213. Which tool is used for the simplest method of skinning wires?

A) Electrician's knife
B) Thermal wire stripper
C) Mechanical wire stripper
D) Manual wire stripper

214. What is the output produced in the ADC circuit?

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

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

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

216. Which is the additional percentage of power delivered

by the lithium Ion compared to NiMH battery?

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

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

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

218. What is the advantage of SMPS in computer?

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

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

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

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

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

221. What is the term stands for TRIAC?

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

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

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

223. Which mode is used in differential amplifier?

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

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

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

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

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

226. What is the cause of burnt relay contacts?

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

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

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

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

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

229. 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) 1 Amp
C) 3 Amp D) Greater than 4 Amp

230. What is the maximum drain current, ID for BF 245B?

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

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

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

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

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

233. 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

234. Which material is used as electrical insulator?

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

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

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

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

A) Pin number 3 B) Pin number 6

C) Pin number 5 D) Pin number 5

237. Which factor determines the inductance value?

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

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

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

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

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

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

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

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

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

242. Which material contains eight electrons in valency layer?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

250. What is the reason for electric fire?

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

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

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

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

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

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

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

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

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

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

A) Solder setting very slowly B) Joint becomes mechanically stronger

C) Disturbs the chemical bonding
D) Results in dry brittle joint

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

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

257. 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

258. 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) Topping up
D) Cycling of the cell

259. 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) Double the input A/C frequency
D) Three times the input A/C frequency

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

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

261. 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) 2.134 v
C) 3.567 v
D) 0.213 v

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

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

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

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

264. What is the unit of inductance?

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

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

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

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

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

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

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

268. Which is the N - channel FET?

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

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

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

270. How the insulators are called?

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

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

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

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

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

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

A) 45
B) 270

C) 90 D) 180

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

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

275. 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

276. Which three terminal voltage regulator IC has adjustable output?

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

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

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

278. 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) VCE (max) in volts
C) VBE (max) in volts D) VCC in volts

279. What is the gate current (Ig) of the JFET, when reverse biased?

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

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

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

281. Which electrical parameter opposes the flow of electrons?

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

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

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

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

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

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

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

285. Which metal coating is used on compact disk?

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

286. How batteries are classified based on their working?

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

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

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

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

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

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

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

290. What type of control is used for FET?

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

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

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

292. Which process the ICS are made?

A) Grown junction process B) Micro photo - lithographic process

C) Point contact junction process
D) Point contact junction process

293. How the stationary electric charges are called?

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

294. How gate is biased in JFET?

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

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

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

296. 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

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

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

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

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

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

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

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

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

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

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

302. What is the shape of prohibition sign?

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

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

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

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

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

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

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

306. Which part of the relay causes most trouble?

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

307. 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

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

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

309. 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) No output DC voltage
D) Very low voltage

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

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

311. Which class of fire is classified involving metals?

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

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

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

313. What is the important feature of instrumentation amplifier?

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

314. What is the information stored in digital registers?

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

315. What is the advantage of IGBT?

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

316. Which step is important for soldering a joint?

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

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

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

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

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

319. Which factor influences the severity of electrical shock?

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

320. What is the term stands for TRIAC?

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

321. How the single strand wire is called?

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

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

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

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

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

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

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

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

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

326. Which device is a unipolar transistor?

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

327. Which battery is used for cellular phones?

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

328. What is the maximum forward gate current (Ig) for BFW10 JFET?

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

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

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

330. Which material conducts electricity?

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

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

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

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

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

333. Why the plunger desoldering tool needs periodical cleaning?

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

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

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

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

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

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

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

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

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

338. What is the name of multi-stage amplifiers?

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

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

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

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

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

341. What is the shape of mandatory signs?

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

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

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

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

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

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

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

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

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

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

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

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

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

348. What is the gate current (Ig) of the JFET, when reverse biased?

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

349. What is the maximum power dissipation Pmax for BF 245B?

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

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

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

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

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

352. 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) Five times the time period of signal
D) RC valves should be at least ten times

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

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

354. What is the unit of electric charge?

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

355. Which software is used to simulate electronic circuits?

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

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

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

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

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

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

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

359. How the single strand wire is called?

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

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

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

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

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

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

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

363. What is the advantage of IGBT?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

371. Which value is equal to one picofarad?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

383. What is the full form of the abbreviation ISA?

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

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

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

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

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

386. Which rechargeable cell is designed with conductive polymer?

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

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

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

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

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

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

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

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

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

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

A) IB/ IE
B) IE/ IC
C) IE/ IC
D) IC/ IE

392. Which is the N - channel FET?

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

393. What is the code number of TRIAC?

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

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

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

395. How can you confirm a transistor as defective?

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

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

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

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

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

398. In which analog meter the battery is provided?

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

399. What is the use of screw driver?

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

400. Which soldering instrument has hot air blowing facility?

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

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

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

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

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

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

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

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

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

405. 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

406. 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 OFF at room temperature
C) Lamp is ON at 400 Degree Centigrade
D) Lamp is ON at 100 Degree Centigrade

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

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

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

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

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

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

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

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

411. How the sensitivity of voltmeter is determined?

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

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

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

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

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

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

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

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

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

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

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

417. What is the limitation of integrated circuits?

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

418. Which condition the mechanical zero error occur in panel meters?

A) At voltage connected condition
B) At normal condition
C) At load connected condition
D) At load connected condition

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

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

420. How gate is biased in JFET?

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

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

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

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

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