EM 1st year all module QP 422MCQ

ITI Quiz - 25-Mar-2026 11:10 AM

Q. ID: ITISKILL7503XU

March 2026 | **Sri Mahalingeswara ITI** | Question Paper

Duration: 30 Mins | **Total Marks: 422** | **ID: ITISKILL7503XU**

Student Name: _____ Roll No: _____

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

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

2. How the insulators are called?

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

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

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

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

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

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

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

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

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

7. 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

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

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

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

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

10. What is the input impedance of IGBT?

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

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

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

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

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

13. How the sensitivity of voltmeter is determined?

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

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

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

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

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

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

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

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

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

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

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

19. What is the type of transistor BPX81?

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

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

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

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

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

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

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

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

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

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

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

25. What is the code number of TRIAC?

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

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

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

27. What is the unit of inductance?

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

28. What is the shape of prohibition sign?

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

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

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

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

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

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

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

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

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

33. 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) 18 gauge rosin cored D) 16 gauge rosin cored

34. 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

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

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

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

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

37. Which parameter is measured by a multimeter?

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

38. How the stationary electric charges are called?

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

39. 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 eleminate the transformer
D) To get more voltage gain

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

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

41. Which device is a unipolar transistor?

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

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

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

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

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

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

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

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

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

46. What is the function of clipper circuit?

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

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

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

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

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

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

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

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

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

51. How the single strand wire is called?

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

52. Which soldering instrument has hot air blowing facility?

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

53. Which factor influences the severity of electrical shock?

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

54. Which material is used as electrical insulator?

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

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

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

56. What is the shape of mandatory signs?

A) Square
B) Triangular

C) Circular D) Rectangular

57. What is the use of photo transistor?

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

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

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

59. What is the advantage of MOSFET?

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

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

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

61. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

71. What is the use of screw driver?

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

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

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

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

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

74. Which memory device loses data on power failure?

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

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

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

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

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

77. Which rechargeable cell is designed with conductive polymer?

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

78. 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

79. Which electrical property opposes the flow of electrons?

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

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

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

81. What is the use of schmitt trigger circuit?

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

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

A) 1ⁿ
B) 2ⁿ⁺¹
C) 3ⁿ
D) 2ⁿ

83. Which materials are used for semiconductor?

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

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

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

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

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

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

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

87. At which temperature the 6040 solder start meeting?

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

88. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

97. What is the advantage of PIN photo diodes?

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

98. Which angle is checked by the try square?

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

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

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

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

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

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

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

102. Which part of the relay causes most trouble?

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

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

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

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

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

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

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

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

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

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

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

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

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

109. How batteries are classified?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

117. Which type of voltage regulator is IC 723?

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

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

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

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

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

120. 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

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

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

122. 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

123. Which component opposes any change in current?

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

124. Which material conducts electricity?

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

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

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

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

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

127. What is the limitation of integrated circuits?

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

128. Which circuit photo SCR opto couplers are used?

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

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

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

130. Which is the N - channel FET?

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

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

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

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

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

133. 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

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

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

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

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

136. Which mode is used in differential amplifier?

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

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

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

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

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

139. Which torque is used in PMMC meter movement?

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

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

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

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

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

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

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

143. 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

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

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

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

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

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

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

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

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

148. 6 What is the input impedance of IGBT?

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

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

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

150. What is the shape of warning sign board?

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

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

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

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

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

153. What type of control is used for FET?

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

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

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

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

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

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

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

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

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

158. Which formula is used to find the conductance?

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

159. What is the purpose of wood rasp file?

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

160. What is the shape of standard wire gauge?

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

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

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

162. What is characteristics of instrumentation amplifier?

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

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

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

164. Which parameter is maintained constant in zener diode?

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

165. What is the term stands for TRIAC?

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

166. What is the advantage of using digital multimeter?

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

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

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

168. Which is electronic simulation software?

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

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

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

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

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

171. Which is the combination of photo transistor?

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

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

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

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

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

174. Which circuit uses the F to V converter section?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

186. What is stationary electric charges?

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

187. What is the main application of photo resistor?

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

188. 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

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

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

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

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

191. How batteries are classified based on their working?

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

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

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

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

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

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

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

195. What is the use of flip - flop?

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

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

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

197. Which unit is used to measure capacitance value?

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

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

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

199. Which material contains eight electrons in valency layer?

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

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

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

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

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

202. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

215. Which is the fastest A/D conversion techniques?

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

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

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

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

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

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

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

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

220. Which circuit uses photo-darlington devices?

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

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

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

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

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

223. What is the code number of TRIAC?

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

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

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

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

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

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

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

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

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

228. Why the plunger desoldering tool needs periodical cleaning?

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

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

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

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

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

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

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

232. Which electrical parameter opposes the flow of electrons?

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

233. 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

234. How the lamp failures caused by the high inrush

currents in lamp dimmer circuits using TRIAC is eliminated?

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

235. What is the advantage of IGBT?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

247. What is successive approximation (SAR)?

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

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

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

249. 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) Inorganic acid in nature
D) It is non-conductive

250. Which material is used for making instrument cabinets?

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

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

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

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

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

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

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

254. Electrical conductivity of gold is

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

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

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

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

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

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

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

258. 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) 2 Ohms
C) 3 Ohms
D) 1 Ohm

259. Which value is equal to one picofarad?

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

260. Which class of fire is classified involving metals?

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

261. What is the purpose of trimmer capacitor?

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

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

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

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

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

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

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

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

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

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

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

267. What is the information stored in digital registers?

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

268. What is the reason for electric fire?

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

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

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

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

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

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

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

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

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

273. How the gas and liquefied gases are classified

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

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

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

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

A) COM 2 port
B) RJ45 port

C) COM 1 port D) USB port

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

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

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

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

278. How gate is biased in JFET?

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

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

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

280. 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

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

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

282. What are the fundamental properties of insulation materials?

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

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

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

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

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

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

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

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

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

287. Which process the ICS are made?

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

288. How the single strand wire is called?

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

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

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

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

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

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

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

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

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

293. 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

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

A) Forward break down voltage B) PIV voltage

C) Knee voltage D) Break down voltage

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

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

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

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

297. 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

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

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

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

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

300. What are the uses of simulation softwares?

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

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

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

302. What is the term stands for TRIAC?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

314. What is the cause of burnt relay contacts?

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

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

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

316. In which analog meter the battery is provided?

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

317. 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

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

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

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

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

320. Which device is a unipolar transistor?

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

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

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

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

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

323. 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

324. What is the advantage of SMPS in computer?

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

325. 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

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

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

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

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

328. What is the drawbacks of LDR?

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

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

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

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

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

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

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

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

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

333. Which step is important for soldering a joint?

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

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

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

335. What is the purpose of using IC74LS190?

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

336. 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) 0.864
D) 0.632

337. Which is the property of IGBT?

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

338. How the negative feedback is called?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

348. 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) 0.213 v
B) 2.134 v
C) 1.525 v
D) 3.567 v

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

357. Which insulation layer is used in MOSFET?

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

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

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

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

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

360. What is the advantage of IGBT?

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

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

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

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

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

363. Which cores are used in intermediate frequency transformers?

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

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

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

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

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

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

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

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

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

368. How power rating is specified for transformers?

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

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

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

370. Which electrical parameter is measured by the megger?

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

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

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

372. 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) Cold joint
D) Dull gravity surface

373. Which metal coating is used on compact disk?

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

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

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

375. 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

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

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

377. How gate is biased in JFET?

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

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

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

379. 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

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

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

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

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

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

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

383. What is the advantage of MOSFET?

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

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

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

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

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

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

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

387. How many alternating layers are there in IGBT?

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

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

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

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

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

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

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

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

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

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

A) Calibration
B) Re-alignment

C) Range test
D) Testing standards

393. What is the unit of electric charge?

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

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

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

395. Which meter uses a moving coil for measurement?

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

396. What is the unit of electric charge?

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

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

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

398. 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) Voltage lags current by 45 Degree
C) Current leads voltage by 90 Degree
D) Current lags voltage by 90 Degree

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

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

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

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

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

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

402. Which software is used to simulate electronic circuits?

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

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

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

404. Which is the N - channel FET?

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

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

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

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

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

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

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

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

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

409. 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

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

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

411. Which factor determines the inductance value?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

419. Which battery is used for cellular phones?

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

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

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

421. 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

422. Which circuit uses the enhancement type MOSFET?

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