

July 2026

Answer Key

Duration: 30 Mins

Total Marks: 176

Q.ID: ITISKILL8621GP

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

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

Answer: D) 2.2 V

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

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

Answer: D) 10 ns

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

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

Answer: D) 2.5 V

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

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

Answer: A) No moving parts to wear and tear

5. Which circuit uses photo-darlington devices?

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

Answer: B) DC circuits

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

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

Answer: C) LM 317

7. What is the term stands for TRIAC?

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

Answer: C) Triode AC semiconductor

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

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

Answer: D) Gelled electrolyte

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

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

Answer: C) Meter

10. What is the use of screw driver?

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

Answer: A) Tighten or loosen screws

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

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

Answer: C) Double Pole Double Throw

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

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

Answer: D) I_C / I_E

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

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

Answer: B) Using virtual instrumentation testing

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

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

Answer: D) Silver

15. What is the use of photo transistor?

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

Answer: D) Used as light controlled switch

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

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

Answer: D) Cadmium sulfide

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

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

Answer: D) Resistance will increase to around 1 Mega Ohm

18. What is the code number of TRIAC?

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

Answer: A) BT136

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

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

Answer: B) Smothering

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

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

Answer: C) Few micro Amperes

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

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

Answer: D) Four layer three junctions

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

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

Answer: A) Trigger

23. How gate is biased in JFET?

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

Answer: A) Reverse biased

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

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

Answer: D) 1.4 V

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

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

Answer: D) Voltage across it reached the zener voltage

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

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

Answer: D) 6.25×10^{18} electrons

27. Which mode is used in differential amplifier?

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

Answer: D) Common - mode operation

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

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

Answer: A) 1.8 Amp

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

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

Answer: B) Brazing

30. How power rating is specified for transformers?

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

Answer: D) Volt ampere (VA)

31. What is the unit of electric charge?

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

Answer: D) Coulomb

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

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

Answer: C) 0.864

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

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

Answer: B) 1.2 V to 32 V

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

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

Answer: C) Relaxation oscillator

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

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

Answer: A) IDE port

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

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

Answer: D) 1.835

37. 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

Answer: C) For DC component restoration

38. 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

Answer: D) Conductor s diameter

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

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

Answer: C) 2 V

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

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

Answer: C) 150 Degree Centigrade to 450 Degree Centigrade

41. 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

Answer: B) Absolute conversion accuracy

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

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

Answer: B) IC 7495

43. What is the information stored in digital registers?

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

Answer: B) Binary values

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

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

Answer: B) Defects the operation of switching signal

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

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

Answer: A) Multi turn trim pots

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

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

Answer: C) Drag and drop

47. What is the term stands for TRIAC?

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

Answer: B) Triode AC semiconductor

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

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

Answer: A) Electric current

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

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

Answer: A) Digital frequency meter circuit

50. Which circuit is determined by the frequency of LC tank

circuit?

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

Answer: A) Oscillator

51. Which part of the relay causes most trouble?

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

Answer: C) Relay contacts

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

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

Answer: C) Deflection is independent of current direction

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

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

Answer: C) Physical and sensory test

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

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

Answer: C) Gallium

55. Which value is equal to one picofarad?

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

Answer: A) 10-12 Farad

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

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

Answer: C) Exactly 300 Mw

57. What type of control is used for FET?

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

Answer: C) Voltage controlled device

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

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

Answer: A) Supply power to loads

59. What are the uses of simulation softwares?

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

Answer: A) Design and test a circuit

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

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

Answer: C) Ohmmeter

61. What is the use of flip - flop?

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

Answer: C) It stores binary information

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

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

Answer: A) 60:40:00

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

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

Answer: D) Partition table

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

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

Answer: B) Quiescent current over the cut-off value

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

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

Answer: C) Allows high current flow

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

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

Answer: D) 10 mA

67. What is the unit of inductance?

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

Answer: D) Henry

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

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

Answer: D) It is non-conductive

69. 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

Answer: D) Insulation resistance and dielectric strength

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

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

Answer: D) Flux

71. Which electrical parameter is measured by the megger?

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

Answer: D) Insulation resistance

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

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

Answer: B) Input terminal

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

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

Answer: C) Focus

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

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

Answer: A) Capacitive reactance

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

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

Answer: A) Control grid

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

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

Answer: D) Band 9

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

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

Answer: D) Chemical energy into electrical energy

78. Which formula is used to find the conductance?

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

Answer: C) I / V

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

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

Answer: B) 6000 V

80. 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 25 MHz
- D) Between 0.5 and 30 MHz

Answer: D) Between 0.5 and 30 MHz

81. Which torque is used in PMMC meter movement?

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

Answer: A) Moderate torque

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

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

Answer: C) USB port

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

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

Answer: B) To minimize eddy current losses

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

- A) FET
- B) SCR

C) UJT
Answer: B) SCR

D) LED

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

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

Answer: B) 1

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

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

Answer: D) 0.94

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

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

Answer: C) Negative resistance characteristics

88. What is successive approximation (SAR)?

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

Answer: C) Method of D/A conversion

89. Why the plunger desoldering tool needs periodical cleaning?

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

Answer: A) To prevent clogging of the nozzle

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

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

Answer: D) 20 MA

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

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

Answer: D) Series

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

- A) Set
B) Reset

C) Reset
Answer: B) Reset

D) Threshold

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

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

Answer: C) Triangular wave output

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

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

Answer: C) Capacitive reactance

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

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

Answer: D) RC values should be at least ten times

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

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

Answer: B) Uses split capacitor

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

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

Answer: C) 74 LS 138

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

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

Answer: D) Current

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

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

Answer: A) 1.8 V

100. What is the advantage of MOSFET?

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

Answer: B) Low gate signal power requirements

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

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

Answer: D) Permanent Magnet Moving Coil meter

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

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

Answer: C) Clamper circuit

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

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

Answer: D) Compact Disk Read Only Memory

104. Which type of voltage regulator is IC 723?

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

Answer: A) Three pin adjustable voltage regulator

105. What is the use of schmitt trigger circuit?

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

Answer: B) AC to DC converter

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

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

Answer: D) Square wave

107. How the insulators are called?

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

Answer: D) Dielectrics

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

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

Answer: A) Steel toe caps

109. What is the limitation of integrated circuits?

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

Answer: A) Greater flexibility

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

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

Answer: D) 2.0 A

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

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

Answer: D) Lead selenide

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

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

Answer: D) 25mA

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

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

Answer: A) Plastic packaging

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

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

Answer: C) Junction ruptured and short circuited

115. 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

Answer: B) Pulse repetition

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

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

Answer: C) 30 V

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

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

Answer: A) PIV voltage

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

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

Answer: B) Aluminium frame

119. Which insulation layer is used in MOSFET?

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

Answer: B) Silicon-di-oxide

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

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

Answer: B) Radio receivers

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

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

Answer: D) Practically zero

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

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

Answer: C) Common emitter configuration

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

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

Answer: B) 1000 kW

124. Rate of change of input voltage

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

Answer: C) Rate of change of output voltage

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

- A) Number of bits used B) Number of bits used

- C) Proportional to the binary weight D) Degree of accuracy

Answer: A) Number of bits used

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

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

Answer: D) 10 mm to 15 mm

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

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

Answer: D) 10 mA

128. What is the advantage of MOSFET?

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

Answer: B) Fast switching speed

129. 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

Answer: B) Due to elastic property of insulation

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

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

Answer: A) By IR light produced inside the package

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

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

Answer: B) By using quartz crystal

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

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

Answer: C) 300 mw

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

- | | | | |
|-----------------------|-------------------------------|-----------------------------|--|
| A) Knee voltage | B) Reverse break down voltage | A) Higher thermal stability | B) Requires complicated bias arrangement |
| C) Break down voltage | D) PIV voltage | C) Complex design | D) Silicon transistor needs low cut-in-voltage |
- Answer: D) PIV voltage**

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

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

Answer: B) Dry solder joint

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

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

Answer: B) Increased temperature

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

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

Answer: D) Constant voltage charging method

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

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

Answer: C) Jet of water

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

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

Answer: D) Notches

139. 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 |

Answer: C) Circuit work space

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

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

Answer: A) B3202

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

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

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

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

Answer: A) Capacitor

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

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

Answer: C) Measuring parameter

144. 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 |

Answer: A) Indicate the health condition of battery

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

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

Answer: B) Heat

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

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

Answer: A) Nickel metal hydride (NiMH)

147. Which is the property of IGBT?

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

Answer: A) High efficiency and fast switching

148. Which factor determines the inductance value?

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

Answer: A) Diameter of the coil

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

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

Answer: C) 6.666 Ohms

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

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

Answer: A) Using pulse transformer

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

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

Answer: D) Pin number 3

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

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

Answer: B) The need of bulky transformer

153. Which material is used as electrical insulator?

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

Answer: D) Porcelain

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

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

Answer: C) Power supplies

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

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

Answer: C) Measuring parameter

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

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

Answer: B) Mechanical energy

157. Which material conducts electricity?

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

Answer: C) Copper

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

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

Answer: B) 0.1 A

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

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

Answer: B) Never reach saturation

160. What is the cause of burnt relay contacts?

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

Answer: D) Excessive contact current

161. How the negative feedback is called?

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

Answer: A) Degenerative feedback

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

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

Answer: D) 0.213 v

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

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

Answer: D) Metal oxide varistor

164. Which metal coating is used on compact disk?

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

Answer: A) Aluminium

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

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

Answer: B) Power Amplifier

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

- A) 40 Hz
C) 100 Hz

- B) 200 Hz
D) 60 Hz

Answer: C) 100 Hz

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

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

Answer: A) + 4.75v to + 5.25V

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

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

Answer: B) Biased negative clipper

169. Which circuit uses the enhancement type MOSFET?

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

Answer: B) Integrated MOS switching circuits

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

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

Answer: A) One Op-Amp

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

- A) In volts
B) In hertz

- C) In hertz

- D) In ampere

Answer: B) In hertz

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

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

Answer: D) Arsenic

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

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

Answer: D) High rate discharge tester

174. At which temperature the 6040 solder start meeting?

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

Answer: A) 200 Degree Centigrade

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

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

Answer: A) Printing the values

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

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

Answer: C) 1.5 VDC