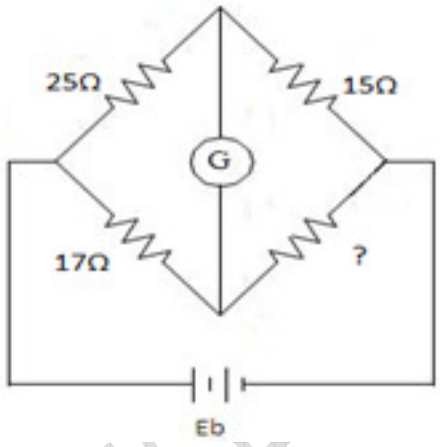
606 ELECTRONICS
(FINAL)

1. Inductor is …….. element.

   (A) active
   (B) passive
   (C) linear
   (D) polar

2. Find the unknown resistance value in given circuit.



   (A) 10.2 Ω
   (B) 11.7 Ω
   (C) 10.5 Ω
   (D) 11.5 Ω

3. The diffused impurities with …….. valence electrons are called donor atoms.

   (A) 4
   (B) 3
   (C) 5
   (D) 0

4. What is the range of the operating voltage level for LEDs?

   (A) 5-12 mV
   (B) 1.7-3.3 V
   (C) 5-12 V
   (D) 20-25 V

5. Calculate the power dissipation of a diode having I_d = 40 Ma.

(A) 28 mW
(B) 28 W
(C) 280 mW
(D) 400 mW

6. For a MOSFET V_{gs} = 3 V, I_{ds} = 5 A and I_d = 2 A. Find the pinch of voltage V_p.

(A) 4.08
(B) 8.16
(C) 16.32
(D) 0

7. The crystal Oscillator frequency is very stable due to …….. of the Crystal.

(A) rigidity
(B) vibrations
(C) low Q
(D) high Q

8. In an LC Oscillator, if the value of L is increased four times, the frequency of oscillations is

(A) 4f
(B) 2f
(C) $\frac{f}{4}$
(D) $\frac{f}{2}$

9. 2's complement of $(11001011)_2$ is

(A) 01010111
(B) 11010100
(C) 00110101
(D) 11100010

10. MOS families includes

(A) PMOS and NMOS
(B) CMOS and NMOS
(C) PMOS, NMOS and CMOS
(D) EMOS, NMOS and PMOS

11. Propagation delay is defined as

(A) the time taken for the output of a gate to change after the inputs have changed
(B) the time taken for the input of a gate to change after the outputs have changed
(C) the time taken for the input of a gate to change after the intermediates have changed
(D) the time taken for the output of a gate to change after the intermediates have changed

12. When 8051 wakes up then 0x00 is loaded to which register?

(A) DPTR
(B) SP
(C) PC
(D) PSW

13. An example of a discrete set of information/system is

(A) the trajectory of the Sun
(B) data on a CD
(C) universe time scale
(D) movement of water through a pipe

14. AM radio signal is an example for

(A) $y(t) = a \times x(t)$
(B) $y(t) = x_1(t) + x_2(t)$
(C) $y(t) = -x(t)$
(D) $y(t) = x_1(t) \times x_2(t)$

15. What provides a periodic voltage waveform?

(A) Sweep generator
(B) Voltmeter
(C) Oscillator
(D) Amplifier

16. Lumped parameter delay line consists of

(A) RC networks
(B) RL networks
(C) LC networks
(D) Resistive networks

17. A trigger circuit is

(A) is used for triggering the input
(B) is used for triggering the output
(C) used with time base generator
(D) used as a oscillator

18. Resistance of a metallic conductor is given by

(A) $R = \frac{I}{A}$
(B) $R = \frac{\rho}{A}$
(C) $R = \frac{\rho l}{A}$
(D) $R = \frac{l}{A}$

19. Avalanche photodiodes based on HgCdTe are used for …….. in both the near and far infrared.

(A) dispersion
(B) dislocation
(C) ionization
(D) array applications

20. Mechanical transducers cause

(A) power loss
(B) hysteresis loss
(C) eddy current loss
(D) frictional loss

21. Relation between temperature and resistance of a conductor is

(A) $R_t = R_{\text{ref}}[1+t]$
(B) $R_t = R_{\text{ref}}[1+\alpha\Delta t]$
(C) $R_t = R_{\text{ref}}[1-\alpha t]$
(D) $R_t = R_{\text{ref}}[1-t]$

22. Platinum is used for industrial applications because

(A) it is cheap
(B) it is available readily
(C) it is a noble metal
(D) it gives accurate measurements

23. Reluctance of a coil is given by the relation

(A) $S = \frac{l}{A}$
(B) $S = \frac{l}{\mu}$
(C) $S = \frac{a}{\mu A}$
(D) $S = \frac{l}{\mu A}$

24. Which of the following is used to establish a fixed level of current or voltage in a transistor?

(A) Biasing
(B) Loading
(C) Load line
(D) Coupling

25. Which of the following represents common-emitter small signal input resistance?

(A) h_{ie}
(B) h_{fe}
(C) h_{ib}
(D) h_{oe}

26. The ear is not sensitive to …….. distortion.

(A) frequency
(B) amplitude
(C) harmonic
(D) phase

27. The collector current in a common base configuration is equal to

(A) alpha times emitter current plus leakage current
(B) alpha times base current plus leakage current
(C) beta times emitter current plus leakage current
(D) beta times collector current plus leakage current

28. Which is **NOT** a basic BJT amplifier configuration?

(A) Common-drain
(B) Common-base
(C) Common-emitter
(D) Common-collector

29. The bandwidth of a single stage amplifier is …….. that of multistage amplifier.

(A) equal to
(B) less than
(C) more than
(D) independent

30. Which configuration has the lowest current gain?

(A) Common-base
(B) Common-collector
(C) Common-emitter
(D) Emitter follower

31. An ammeter's ideal resistance should be

(A) zero
(B) unity
(C) infinite
(D) the same with the circuit's resistance

32. The input impedance of an amplifier …….. when negative voltage feedback is applied.

(A) decreases
(B) becomes zero
(C) increases
(D) is unchanged

33. A semiconductor has …….. temperature coefficient of resistance.

(A) positive
(B) zero
(C) negative
(D) None of the above

34. The resistivity of a pure silicon is about

(A) 100 Ω cm
(B) 6000 Ω cm
(C) 3×10^{5} Ω m
(D) 6×10^{-8} Ω cm

35. When a pure semiconductor is heated, its resistance

(A) goes up
(B) goes down
(C) remains the same
(D) can't say

36. The strength of a semiconductor crystal comes from

(A) forces between nuclei
(B) forces between protons
(C) electron-pair bonds
(D) None of the above

37. A hole in a semiconductor is defined as

(A) a free electron
(B) the incomplete part of an electron pair bond
(C) a free proton
(D) a free neutron

38. As the doping to a pure semiconductor increases, the bulk resistance of the semiconductor

(A) remains the same
(B) increases
(C) decreases
(D) None of the above

39. In a semiconductor, current conduction is due to

(A) only holes
(B) only free electrons
(C) holes and free electrons
(D) None of the above

40. In the depletion region of a p-n junction, there is a shortage of

(A) acceptor ions
(B) holes and electrons
(C) donor ions
(D) None of the above

41. A p-n junction acts as a

(A) controlled switch
(B) bidirectional switch
(C) unidirectional switch
(D) None of the above

42. The leakage current across a p-n junction is due to

(A) minority carriers
(B) majority carriers
(C) junction capacitance
(D) None of the above

43. With forward bias to a p-n junction, the width of depletion layer

(A) decreases
(B) increases
(C) remains the same
(D) None of the above

44. At absolute temperature, an intrinsic semiconductor has

(A) a few free electrons
(B) many holes
(C) many free electrons
(D) no holes or free electrons

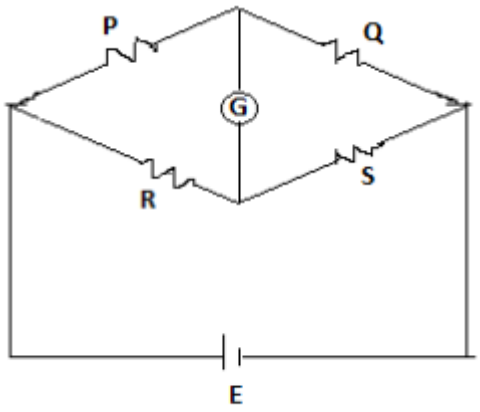
45. An ac voltage source of $2\sin t$ V is connected in series with a dc voltage source of 5 V. If a PMMC instrument is connected in parallel to this combination then the reading of meter will be equal to

(A) 7 V
(B) 5 V
(C) 5.2 V
(D) 25 V

46. A PMMC instrument can be used as ammeter and as voltmeter with the help of

(A) a low resistance shunt, a low series resistance
(B) a low resistance shunt, a high series resistance
(C) a high series resistance, a low resistance shunt
(D) a low series resistance, a high shunt resistance

47. The given figure shows the Wheatstone bridge method for measurement of unknown resistance (R). The balanced equation for Wheatstone bridge is given by



Wheatstone Bridge

(A) $\frac{P}{R}=\frac{Q}{S}$
(B) $\frac{P}{S}=\frac{Q}{R}$
(C) $\frac{P}{R}=\frac{S}{Q}$
(D) $\frac{R}{P}=\frac{Q}{S}$

48. In terms of the division on screen, the voltage of the waveform in CRO is

(A) average voltage
(B) RMS voltage
(C) peak to peak voltage
(D) maximum voltage

49. If the two input waveforms are of equal amplitude and 90-degree phase difference is applied to the CRO then the Lissajous patterns obtained will be

(A) straight line tilted at 45 degree with respect to X-axis
(B) circle
(C) ellipse
(D) vertical straight line

50. The ripple factor of a bridge rectifier is

(A) 0.482
(B) 0.812
(C) 1.11
(D) 1.21

51. A half-wave rectifier is equivalent to a

(A) a clamper circuit
(B) a clipper circuit
(C) a clamper circuit with negative bias
(D) a clamper circuit with positive bias

52. The basic reason why a full-wave rectifier has a twice the efficiency of a half-wave rectifier is that

(A) it makes use of transformer
(B) its ripple factor is much less
(C) it utilizes both half-cycle of the input
(D) its output frequency is double the line frequency

53. A certain inverting amplifier has a closed-loop voltage gain of 25. The Op-amp has an open-loop voltage gain of 100,000. If an Op-amp with an open-loop voltage gain of 200,000 is substituted in the arrangement, the closed-loop gain

(A) doubles
(B) drops to 12.5
(C) remains at 25
(D) increases slightly

54. What is the Fermi energy of a n-type semiconductor?

(A) E

(B) $E_F = \frac{(E_c + E_v)}{2}$

(C) $E_F = \frac{(E_c + E_d)}{2}$

(D) $E_F = \frac{(E_v + E_a)}{2}$

55. The drift velocity of electrons is of the order of

(A) $1\ \text{ms}^{-1}$

(B) $10^{-3}\ \text{ms}^{-1}$

(C) $10^{6}\ \text{ms}^{-1}$

(D) $3 \times 10^{8}\ \text{ms}^{-1}$

56. The potential difference of an energy source that provides 50 mJ of energy for every micro coulomb of charge that flows is

(A) 5 V
(B) 50 V
(C) 500 V
(D) 50 kV

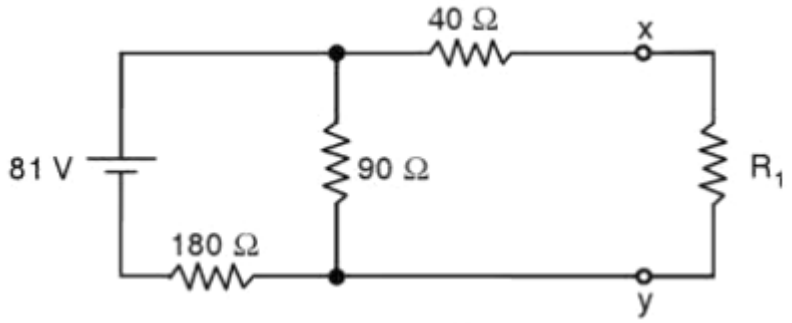
57. The example of non-ohmic resistance is

(A) copper wire
(B) carbon wire
(C) aluminium wire
(D) tungsten wire

58. The internal resistance of a cell of emf 2 V is 0.1 Ω. It is connected to a resistance of 3.9 Ω. The voltage across the cell is

(A) 0.5 V
(B) 1.95 V
(C) 1.9 V
(D) 2 V

59. Find the Thevenin's equivalent circuit to the left of terminals x-y in figure.



(A) $E_{Th} = 5\,\text{V};\ R_{Th} = 4.5\,\Omega$
(B) $E_{Th} = 6\,\text{V};\ R_{Th} = 5\,\Omega$
(C) $E_{Th} = 4.5\,\text{V};\ R_{Th} = 10\,\Omega$
(D) $E_{Th} = 10\,\text{V};\ R_{Th} = 9\,\Omega$

60. Two charges +3 μC and –12 μC are separated by a distance of 0.4 m. Where should a third change of +3 μC be placed from +3 μC so that it experiences zero force?

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

61. Electrons are caused to fall through a potential difference of 1500 V.
If they were initially at rest, their final speed is

(A) $2.3 \times 10^{3}\ \text{ms}^{-1}$
(B) $2.3 \times 10^{7}\ \text{ms}^{-1}$
(C) $4.6 \times 10^{4}\ \text{ms}^{-1}$
(D) $0.23 \times 10^{12}\ \text{ms}^{-1}$

62. Two parallel metal plated maintained at a potential difference of 1000 V are separated by 0.02 m. An electron is placed between the two plates. The force experienced by the electron is

(A) 1.6×10^{-19} N
(B) 8×10^{-15} N
(C) 1000 N
(D) None of the above

63. An electric dipole is placed in a non-uniform electric field. It experiences

(A) a force but no torque
(B) a force and a torque
(C) a torque but no force
(D) neither a force nor a torque

64. A circuit with a resistor, indicator and capacitor in series is resonant at frequency f_0. If all component values are now doubled, what is new resonant frequency?

(A) $2f_0$
(B) Still f_0
(C) $\frac{f_0}{4}$
(D) $\frac{f_0}{2}$

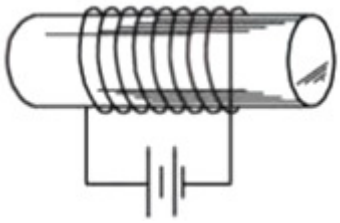
65. The source of the magnetic field is

(A) an isolated magnetic pole
(B) static electric charge
(C) magnetic substances
(D) current loop

66. Figure shows the magnetic field around the conductor. Direction of current flowing

(A) from right to left
(B) from left to right
(C) can be either of above
(D) data incomplete

67. Which end of the coil shown in the figure is the North Pole?



(A) Left
(B) Right
(C) Neither left nor right
(D) Data incomplete

68. Deflection in a Galvanometer falls from 50 divisions to 20 divisions when a 12 Ω Shunt is applied. Galvanometer resistance is

(A) 18 Ω
(B) 6 Ω
(C) 9 Ω
(D) 24 Ω

69. At low frequencies, the material used for transformer cores is

(A) copper
(B) silicon iron
(C) soft iron
(D) None of the above

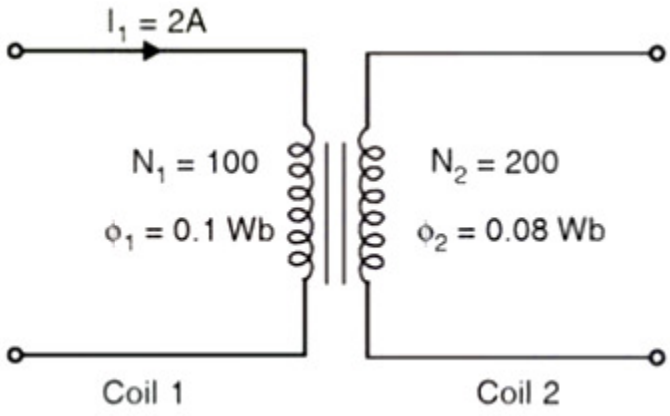
70. The minimum relative permeability of the material can be

(A) 1
(B) slightly less than 1
(C) 0.005
(D) None of the above

71. An air-cored choke is used for …….. applications.

(A) radio frequency
(B) audio frequency
(C) power frequency
(D) None of the above

72. In figure, the maximum inductance between the coils is



(A) 4 H
(B) 100 H
(C) 8 H
(D) None of the above

73. The magnetic energy stored in an inductor is …….. current.

(A) directly proportional to
(B) inversely proportional to
(C) directly proportional to square of
(D) inversely proportional to square of

74. If the frequency of the flux is increased two times, the eddy current power loss is

(A) increased two times
(B) decreased two times
(C) increased four times
(D) decreased four times

75. A sinusoidal current has a magnitude of 3 A at 120°. Its maximum value will be

(A) $\sqrt{3}$ A
(B) $\frac{\sqrt{3}}{2}$ A
(C) $2\sqrt{3}$ A
(D) 6 A

76. An alternating voltage is given by $v = 100 \sin 314t$ volts. Its average value will be

(A) 70.7 V
(B) 50 V
(C) 63.7 V
(D) 100 V

77. When a 15 V square wave is connected across a 50 V a.c voltmeter, it will read

(A) 15 V
(B) $15 \times \sqrt{2}$ V
(C) $\frac{15}{\sqrt{2}}$ V
(D) None of the above

78. A capacitor is perfect insulator for

(A) alternating current
(B) direct current
(C) direct as well as alternating current
(D) None of the above

79. Power absorbed in the pure inductive circuit is zero because

(A) reactive component of current is zero
(B) active component of current is maximum
(C) power factor of the circuit is zero
(D) reactive and active components of current cancel out

80. A pure inductor is connected to an alternating voltage source. If both the voltage and the frequency are doubled, the circuit current

(A) becomes double
(B) is halved
(C) becomes three times
(D) no change

81. The register in the 8085 A that is used to keep track of the memory address of the next op-code to be run in the program is the

(A) stack pointer
(B) program counter
(C) instruction pointer
(D) accumulator

82. The contents of the accumulator after this operation will be

```
MOV A,#0BH
ANL A,#2CH
```

(A) 11010111
(B) 11011010
(C) 00001000
(D) 00101000

83. The small extremely fast, RAM's are called as

(A) cache
(B) heaps
(C) accumulators
(D) stacks

84. Interrupts are provided primarily as a way to

(A) improve processor utilization
(B) improve processor execution
(C) improve processor control
(D) improve processor speed

85. Mixing is used in communication to

(A) raise the carrier frequency
(B) lower the carrier frequency
(C) to altered the deviation
(D) to change the carrier frequency to any required value

86. Most of the amplification in a superhetrodyne receiver occurs at …….. stage.

(A) IF
(B) RF amplifier
(C) Audio amplifier
(D) Detector

87. In a pure inductive circuit if the supply frequency is reduced to $\frac{1}{2}$, the current will

(A) be reduced by half
(B) be doubled
(C) be four times as high
(D) be reduced to one fourth

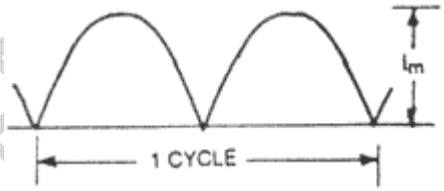
88. In a parallel R-C circuit, the current always …….. the applied voltage.

(A) lags
(B) leads
(C) remains in phase with
(D) None of the above

89. Which transistor bias circuit arrangement provides good stability using negative feedback from collector to base?

(A) Base bias
(B) Collector-feedback bias
(C) Voltage-divider bias
(D) Emitter bias

90. For full-wave rectified sine wave, rms value is



(A) 0.707 i_m
(B) 0.6036 i_m
(C) 0.5 i_m
(D) 0.318 i_m

91. When transistors are used in digital circuits they usually operate in the

(A) active region
(B) breakdown region
(C) saturation and cutoff regions
(D) linear region

92. Which among the below assertions is **NOT** a relevant property of CE amplifier?

(A) High voltage gain
(B) High current gain
(C) High input resistance
(D) High output resistance

93. The SI units of transconductance is

(A) Ampere/Volt
(B) Volt/Ampere
(C) Ohm
(D) Siemens

94. Field effect transistor's conductivity is regulated by

(A) input current
(B) output current
(C) terminal voltage
(D) supply voltage

95. In FET, which voltage increases the channel size?

(A) Negative Vgs
(B) Positive Vgs
(C) Negative Vds
(D) Positive Vds

96. Choose the correct statement

(A) MOSFET is a unipolar, voltage controlled, two terminal device
(B) MOSFET is a bipolar, current controlled, three terminal device
(C) MOSFET is a unipolar, voltage controlled, three terminal device
(D) MOSFET is a bipolar, current controlled, two terminal device

97. Which factor determines the output voltage of an op-amp?

(A) Positive saturation
(B) Negative saturation
(C) Both positive and negative saturation voltage
(D) Supply voltage

98. The resolution of an *n* bit DAC with a maximum input of 5 V is 5 mV. The value of *n* is

(A) 8
(B) 9
(C) 10
(D) 11

99. Decimal 43 in hexadecimal and BCD number system is respectively …….. and ……..

(A) B2 and 01000011
(B) 2B and 01000011
(C) 2B and 00110100
(D) B2 and 01000100

100. The basic storage element in a digital system is

(A) flipflop
(B) counter
(C) multiplexer
(D) encoder

101. Which device has one input and many outputs?

(A) Multiplexer
(B) Demultiplexer
(C) Counter
(D) Flipflop

102. When a differential amplifier is operated single-ended

(A) the output is grounded
(B) one input is grounded and signal is applied to the other
(C) both inputs are connected together
(D) the output is not inverted

103. For an Op-Amp, the differential gain is

(A) very high
(B) very low
(C) dependent on input voltage
(D) about 100

104. The output of a particular Op-amp increases 8 V in 12 μs. The slew rate is

(A) 90 V/μs
(B) 0.67 V/μs
(C) 1.5 V/μs
(D) None of the above

105. The input stage of an Op-amp is usually a

(A) differential amplifier
(B) class B push-pull amplifier
(C) CE amplifier
(D) swamped amplifier

106. An oscillator employs …….. feedback.

(A) positive
(B) negative
(C) neither positive nor negative
(D) Data insufficient

107. The piezoelectric effect in a crystal is

(A) a voltage developed because of mechanical stress
(B) a change in resistance because of temperature
(C) a change in frequency because of temperature
(D) None of the above

108. The Barkhausen criterion for an oscillator

(A) loop gain should be unity
(B) loop gain should be less than unity
(C) the phase of a feedback signal with respect to input should be 0° or 360°
(D) Both (A) and (C)

109. An oscillator differs from an amplifier because it

(A) has more gain
(B) requires no input signal
(C) requires no d.c. supply
(D) always has the same input

110. The initial response when the output is not equal to input is called

(A) transient response
(B) error response
(C) dynamic response
(D) None of the above

111. …….. is a part of the human temperature control system.

(A) Digestive system
(B) Perspiration system
(C) Ear
(D) Leg movement

112. …….. is a closed loop system.

(A) Auto-pilot for an aircraft
(B) Direct current generator
(C) Car starter
(D) Electric switch

113. Transfer function of a system is used to calculate which of the following?

(A) The order of the system
(B) The time constant
(C) The output for any given input
(D) The steady state gain

114. The relation between number of free electrons (n) in a semiconductor and temperature (T) is

(A) $n \propto T$
(B) $n \propto T^2$
(C) $n \propto \sqrt{T}$
(D) $n \propto T^{3/2}$

115. When the electrical conductivity of a semiconductor is only due to the breaking of its covalent bonds then it is said to be

(A) donor
(B) acceptor
(C) intrinsic
(D) extrinsic

116. P-type semiconductors are

(A) positively charged
(B) produced when Boron is added as an impurity to silicon
(C) produced when Phosphorous is added as an impurity to silicon
(D) produced when carbon is added as an impurity to germanium

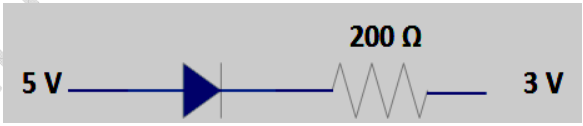
117. Calculate the wavelength of radiation emitted by an LED made up of a semiconducting material with band gap energy 2.8 eV.

(A) 2.8 Å
(B) 4.3308 Å
(C) 5548.4 Å
(D) 4430.8 Å

118. The average value of current in a half wave rectifier is

(A) $\frac{I_0}{\pi}$
(B) $\frac{I_0}{2}$
(C) $\frac{\pi I_0}{2}$
(D) $\frac{2I_0}{\pi}$

119. The Value of current in the following circuit will be



(A) 0 A
(B) 0.01 A
(C) 0.025 A
(D) 10 A

120. What is the frequency of a photon having energy 2.1×10^{-30} J?

(A) 3.1×10^{13} Hz

(B) 4.1×10^{13} Hz

(C) 5.1×10^{13} Hz

(D) 6.1×10^{13} Hz

121. Astable multivibrator operating at 150 Hz has a discharge time of 2.5 m. Find the duty cycle of the circuit.

(A) 50%
(B) 75%
(C) 95.99%
(D) 37.5%

122. In any AC circuit always

(A) apparent power is more than actual power
(B) reactive power is more than apparent power
(C) actual power is more than reactive power
(D) reactive power is more than actual power

123. A voltage follower

(A) has a voltage gain of 1
(B) is noninverting
(C) has no feedback resistor
(D) has all of these

124. Tunnel diode is basically a junction diode with

(A) high doping in p region alone
(B) high doping in p and n regions, both
(C) high doping in n region alone
(D) low doping in both p and n regions

125. A thyristor can be used as

(A) an amplifier
(B) a resistor
(C) a switch
(D) a power source

126. The control terminal (pin 5) of 555 timer IC is normally connected to ground through a capacitor (0.01 μF). This is to

(A) protect the IC from inadvertent application of high voltage
(B) prevent false triggering by noise coupled onto the pin
(C) convert the trigger input to sharp pulse by differentiation
(D) suppress any negative triggering pulse

127. Gain of non-inverting amplifier is given by G =

(A) $1+\frac{R_1}{R_2}$
(B) $1-\frac{R_1}{R_2}$
(C) $\frac{1+R_1}{R_2}$
(D) $\frac{R_1+R_2}{R_2}$

128. Stack is also known as

(A) First in First Out Memory
(B) Flash Memory
(C) Last in First Out Memory
(D) Last in Last Out Memory

129. A Nibble is equal to …….. bit(s)

(A) 1
(B) 2
(C) 3
(D) 4

130. …….. has the unit of eV

(A) Potential difference
(B) Energy
(C) Charge
(D) Current

131. Name the d55. Basic unit of classification is

(A) Kingdom
(B) Division
(C) Species
(D) Order

132. An RF signal is amplitude modulated to a depth of 100% by a sinusoidal signal. The ratio of modulated signal power to unmodulated carrier power is

(A) 1
(B) 2
(C) $\frac{2}{3}$
(D) $\frac{3}{2}$

133. Which of the following characteristics of electrons determine the current in a conductor?

(A) Drift velocity alone
(B) Thermal velocity alone
(C) Both drift velocity and thermal velocity
(D) Neither drift velocity nor thermal velocity

134. Which is the relation connecting current density 'J' and conductivity σ of the conductor, when an electric field E is applied to it?

(A) $J = \sigma^2 E$
(B) $J = \sigma E^2$
(C) $J = \sigma E$
(D) $J = \frac{\sigma}{E}$

135. The power factor of an AC circuit is 0.5. What is the phase difference between voltage and current in the circuit?

(A) π

(B) $\frac{\pi}{2}$

(C) $\frac{\pi}{4}$

(D) $\frac{\pi}{3}$

136. The impedance of the series LCR circuit is

(A) $Z = \sqrt{R^2 + \left(X_L - Xc\right)^2}$

(B) $Z = \sqrt{\frac{R^2}{\left(X_L - Xc\right)^2}}$

(C) $Z = \sqrt{R^2 - \left(X_L - Xc\right)^2}$

(D) $Z = \sqrt{R^2 \times \left(X_L - Xc\right)^2}$

137. Triac is a …….. switch.

(A) Unidirectional
(B) Mechanical
(C) Bidirectional
(D) Omni directional

138. The p-type emitter of the UJT is …….. doped.

(A) lightly
(B) heavily
(C) not
(D) moderately

139. Which of the following is a common application of UJT?

(A) Amplifier
(B) Rectifier
(C) Multivibrator
(D) Sawtooth generator

140. How many pn junction does SCR have?

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

141. Longer the diameter of the wire …….. is its resistance.

(A) unstable
(B) higher
(C) stable
(D) lesser

142. Which following material can be used as an insulator?

(A) SiO_2
(B) Si
(C) Ge
(D) Cu

143. What special type of diode capable of both oscillation and amplification?

(A) Point contact diode
(B) Junction diode
(C) Zener diode
(D) Tunnel diode

144. Which type of meter requires own power source?

(A) Voltmeter
(B) Ammeter
(C) Ohmmeter
(D) Wattmeter

145. The channel of a JFET is between the

(A) gate and drain
(B) drain and source
(C) gate and source
(D) input and output

146. Which of the following is an inductance variable type transformer?

(A) LVDT
(B) Load cell
(C) Thermistor
(D) Carbon microphone

147. The controlling parameter in MOSFET is

(A) Vds
(B) Ig
(C) Vgs
(D) Is

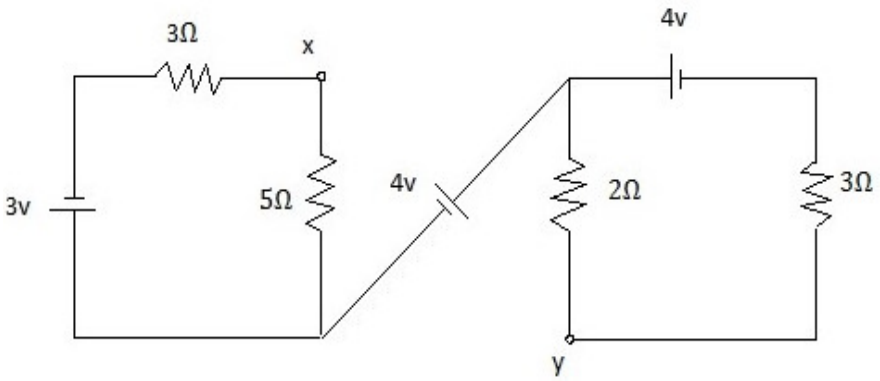
148. The varactor displays what useful electrical property?

(A) Variable resistance
(B) Variable capacitance
(C) Variable inductance
(D) Variable frequency

149. PIN diode is used as

(A) Amplifier
(B) Voltage controlled attenuator
(C) Rectifier
(D) None of the above

150. Potential difference between *x* and *y*



(A) 4.275 V
(B) –4.275 V
(C) 4.527 V
(D) –4.527 V

FINAL ANSWER KEY

Subject Name: 606 ELECTRONICS

SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key
1	B	31	A	61	B	91	C	121	D
2	A	32	C	62	B	92	D	122	A
3	C	33	C	63	B	93	A	123	D
4	B	34	B	64	D	94	C	124	B
5	A	35	B	65	D	95	B	125	C
6	B	36	C	66	B	96	C	126	B
7	D	37	B	67	B	97	C	127	C
8	D	38	C	68	A	98	C	128	C
9	C	39	C	69	B	99	B	129	D
10	C	40	B	70	B	100	A	130	B
11	A	41	C	71	A	101	B	131	C
12	C	42	A	72	C	102	B	132	D
13	B	43	A	73	C	103	A	133	A
14	D	44	D	74	C	104	B	134	C
15	A	45	B	75	C	105	A	135	D
16	C	46	B	76	C	106	A	136	A
17	C	47	A	77	A	107	A	137	C
18	C	48	C	78	B	108	D	138	B
19	D	49	B	79	C	109	B	139	D
20	D	50	A	80	D	110	A	140	B
21	B	51	B	81	B	111	B	141	D
22	D	52	C	82	C	112	A	142	A
23	D	53	C	83	A	113	C	143	D
24	A	54	C	84	A	114	D	144	C
25	A	55	B	85	D	115	C	145	B
26	A	56	D	86	A	116	B	146	A
27	A	57	B	87	B	117	D	147	C
28	A	58	B	88	B	118	A	148	B
29	C	59	D	89	B	119	B	149	B
30	A	60	A	90	B	120	B	150	B