1. **A parallel tuned circuit is also known as**
   a. matched circuit
   b. notch circuit
   c. resonant circuit
   d. anti resonant circuit

2. **In tuned amplifiers equivalent circuits, the model used for transistor is a. hybrid - π**
   b. Thevinen's
   c. y parameter
   d. z parameter

3. **What factors govern the selectivity of a single tuned amplifier ?**
   a. resonant frequency and gain
   b. quality factor and bandwidth
   c. quality factor and gain
   d. gain and bandwidth

4. **The harmonic distortion of an ideal tuned amplifier is**
   a. unity
   b. zero
   c. infinity
   d. depends on tuned circuit

5. **Higher quality factor of a single tuned amplifier provides a**
   a. higher selectivity and bandwidth
   b. smaller selectivity and bandwidth
   c. higher selectivity and smaller bandwidth
   d. smaller selectivity and higher bandwidth

6. **The function of tuned circuit in Tuned Amplifier is**
   a. allows only dc signal
   b. reject dc and allow all frequencies
   c. selecting a particular frequency and rejecting all other frequencies
   d. passing all frequencies

7. **In tuned amplifiers, harmonic distortion is very small because, at these frequencies**
   a. the impedance is high and gain is low
   b. the impedance is low and gain is high
   c. the impedance and gain of the amplifier becomes high
   d. the impedance and gain of the amplifier becomes negligible

8. **If the quality factor of a resonant circuit of tuned amplifier is doubled then the bandwidth is**
   a. doubled
   b. same
   c. halved
   d. zero

9. **The Band width of an ideal tuned amplifier is**
   a. unity
   b. zero
   c. infinity
   d. depends on tuned circuit

10. **The drawbacks of a single tuned amplifier are**
    a. wider bandwidth and the sides of gain versus frequency curve are steeper
    b. wider bandwidth and the sides of gain versus frequency curve are not steeper
    c. narrow bandwidth and the sides of gain versus frequency curve are not steeper
    d. narrow bandwidth and the sides of gain versus frequency curve are steeper

11. **The tapping of inductance of tuned circuit of a tapped single tuned capacitance coupled amplifier**
    a. increases the impedance of resonant circuit
    b. increases the operating frequency
    c. increases the resonant frequency
    d. reduces the impedance of resonant circuit

12. **In the tapped single tuned capacitance coupled amplifier the output voltage when the coil is tapped**
    a. (1-n) times of the voltage developed across the complete coil
    b. n times of the voltage developed across the complete coil
    c. same as the voltage developed across the complete coil

d. half of the voltage developed across the complete coil

13. Tapping in the LC tuned circuit is used to

a. reduce the impedance of the LC circuit to match the low impedance of the CE amplifier

b. increase the impedance of the LC circuit to match the low impedance of the CE amplifier c. reduce the impedance of the LC circuit to match the high impedance of the CE amplifier d. increase the impedance of the LC circuit to match the high impedance of the CE amplifier

14. In tapped single tuned capacitance coupled amplifier, the expression for L to transfer maximum power is

a. $L = \frac{R_0}{w_0}\left[\frac{1}{2Q_e^{\,2}} - \frac{1}{Q_0^{\,2}}\right]$

b. $L = \frac{R_0}{w_0}\left[\frac{1}{2Q_e} - \frac{1}{Q_0}\right]$

c. $L = \frac{R_0}{w_0}\left[\frac{1}{2Q_e}\right]$

d. $L = \frac{R_0}{w_0}\left[-\frac{1}{Q_0}\right]$

15. The tapping point in a tapped single tuned capacitance coupled Amplifier divide the inductance L into two part such that

a. L_1= 2L and L_2 = L/2

b. L_1= (n-1)L and L_2 = (1-n)L

c. L_1=nL and L_2 = (1-n)L

d. L_1=n/L and L_2 = (1-n)/L

16. The total input circuit capacitance in a single tuned capacitive coupled amplifier is

a. $C = C' + C_{b'e} + (1 + g_m R_L)$

b. $C = C' + (1 + g_m R_L) C_{b'e}$

c. $C = C' + C_{b'e} + (1 + g_m R_L) C_{b'e}$

d. $C = C' + C_{b'e} + (1 - g_m) C_{b'e}$

17. The gain bandwidth product of single tuned amplifier is where C is total capacitance

a. $\frac{g_m C}{2\pi}$

b. $\frac{g_m}{2\pi C}$

c. $\frac{2\pi g_m}{C}$

$\frac{C}{2\pi g_m}$

d.

18. The gain bandwidth product of a single tuned capacitive couple amplifier is

a. depends on transconductance and independent on total input circuit capacitance
b. depends on both transconductance and total input circuit capacitance
c. independent on both transconductance and total input circuit capacitance
d. independent on transconductance and dependent on total input circuit capacitance

19. The LC tuned circuit of single tuned capacitive coupled amplifier is not connected between collector and ground because

b. inductor
c. transistor collector
d. capacitor

21. In a single tuned transformer coupled amplifier, the output is taken by

a. capacitive coupling
b. inductive coupling
c. resistive coupling
d. frequency coupling

22. The sharpness of the frequency response curve if the transformer coupled amplifier is depends on the

a. impedance of the tuned circuit
b. resonance frequency of tuned circuit
c. the gain of the transistor
d. quality factor of the tuned circuit

23. In a single tuned transformer coupled amplifier, the effective Q of the entire circuit is (R_{tt} is the resistance of tapped tuned circuit , L is primary inductance and w_0 is resonance frequency)

a. $\frac{R_{tt}}{L}$
b. $\frac{R_{tt}}{w_0}$
c. $\frac{R_{tt}}{w_0 L}$
d. $\frac{L}{w_0 R_{tt}}$

24. In a single tuned transformer coupled amplifier, the ratio of voltage gain 'A' at any frequency to the voltage gain at resonance 'A_r' is

a. $\frac{A}{A_r} = \frac{\partial}{1 + j2\partial Q_e}$
b. $\frac{A}{A_r} = \frac{1}{1 + j2\partial Q_e}$
c. $\frac{A_r}{A} = \frac{1}{1 + j2\partial Q_e}$
d. $\frac{A}{A_r} = \frac{Q_e}{1 + j2\partial Q_e}$

25. In a single tuned transformer coupled amplifier, the impedance of the output circuit at any frequency is given by

a. $\frac{R_{tt}}{1 + j2\partial Q_e}$
b. $\frac{R_{tt} Q_e}{1 + j2\partial Q_e}$
c. $\frac{R_{tt} Q_e}{1 + j2\partial}$
d. $\frac{R_{tt}}{1 + j2\partial}$

26. In a single tuned transformer coupled amplifier the output of the tuned circuit is coupled to the next stage or output device through a

a. resistor

b. inductor

c. transistor collector

b. single tuned resistive coupled amplifier
c. Inductively coupled amplifier
d. single tuned capacitive coupled amplifier

28. In a single tuned transformer coupled amplifier the matching between two stages is done by
a. coil tapping
b. using pad circuits
c. capacitively coupled circuit
d. the transformer turns ratio

29. In a single tuned transformer coupled amplifier the maximum transfer of power at resonance is given when (L is primary inductance and M is mutual inductance)

a. $R_0 = \left[\frac{L}{M}\right]^2 R_i$

b. $R_0 = \left[\frac{L}{MR_i}\right]$

c. $R_0 = \left[\frac{M}{L}\right]^2 R_i$

d. $R_0 = \left[\frac{R_i}{ML}\right]^2$

30. In a single tuned transformer coupled amplifier, under conditions of maximum transform of power, total resistance appearing is shunt with the coil equals
a. R_0^2
b. $R_0/2$
c. R_0
d. $2R_0$

31. If two or more tuned circuits are cascaded and tuned to the same frequency, then the overall bandwidth
a. decreases
b. increases
c. equal to a single stage
d. increases by number of stages cascaded

32. What are the advantages of double tuned amplifier over single tuned amplifier?
a. smaller bandwidth product and ideal curve characteristics
b. larger gain bandwidth product and ideal curve characteristics
c. smaller gain bandwidth product and response is flat and 40db slope sides
d. larger gain bandwidth product and response is flat and 40db slope sides

33. The 3dB bandwidth for double tuned amplifier compared to a single tuned amplifier is
a. smaller
b. larger
c. same
d. exactly half

34. In double tuned amplifier, the term $\frac{w_o M}{\sqrt{R_p R_s}}$ increases than the bandwidth and overshoot are

(w_o is angular frequency, M is mutual inductance R_p & R_s are effective resistance of primary and secondary tuned circuits)
a. both increases
b. both decreases
c. increases and decreases respectively
d. decreases and increases respectively

35. The gain bandwidth product of double tuned amplifier is
(w_o is angular frequency, M is mutual inductance R_p & R_s are effective resistance of primary and secondary tuned

b. $$\frac{g_m\left(\frac{w}{R_p}\right)}{jw_o^2C_1C_2 2\pi RC\sqrt{R_pR_S}\left(1+\left(\frac{w_o}{\sqrt{R_p}}\right)^2\right)}$$

$$\frac{g_m\left(\frac{w}{R_p}\right)}{g_m\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)}$$

$$\frac{}{jw_{o2}^2 2\pi RC\sqrt{R_pR_S}\left(1+\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)^2\right)}$$

c. $$\frac{g_m\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)}{jw_o^2\sqrt{R_pR_S}\left(1+\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)^2\right)}$$

d. $$\frac{g_m\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)}{jw_o^2C_1C_2 2\pi RC\sqrt{R_pR_S}\left(1+\left(\frac{w_oM}{\sqrt{R_pR_S}}\right)^2\right)}$$

36. In a double tuned amplifier two inductively coupled tuned circuit per stage tuned to the
- a. different frequencies
- b. one is ten times than the other
- c. one is double the other
- **d. same frequencies**

37. The double tuned amplifier uses a
- a. a one RLC circuit
- **b. pair of mutually inductively coupled coils**
- c. pair of capacitively coupled circuits
- d. one LC circuit

38. The two tuned circuits in double tuned amplifier acts as
- a. input and load for the base circuit
- b. load for the emitter circuit and output circuit
- **c. load for the collector circuit and output circuit**
- d. input and output circuit

39. The resonant frequency of tuned circuit is made equal to the input frequency than the tuned circuit offers
- a. high frequency amplification
- b. very high impedance to the output signal
- **c. very high impedance to the input signal**
- d. very high gain to the amplifier

40. The gain of double tuned amplifier is compared to a single tuned amplifier
- a. double
- b. half
- c. ten times
- **d. same**

41. The resonant circuit of tuned amplifiers used for the following purpose except
- a. to provide properly matching load impedance

b. reset un wanted harmonics
c. to couple power to load
d. to amplify the signal

42. Tuned amplifier are used where it is desired to
a. generate a narrow band of frequency signal
b. generate a wideband of frequency signal
c. amplify a relatively narrow band of frequencies
d. amplify a wideband of frequencies

43. What is the application of tuned amplifiers?
a. amplify the given input signal
b. provide the impedance matching between transmitter and receiver
c. obtain a desired frequency and reject all other frequencies
d. increase the gain and bandwidth

44. In communication receivers the following circuits are used
a. regulators
b. RC oscillators
c. crystal oscillator
d. tuned amplifiers

45. Which of the following circuit is used in RF amplifiers
a. tuned amplifiers
b. RC oscillators
c. crystal oscillator
d. voltage regulators

46. The following device is used in a radio receivers, to select a particular channel among the all the other channel
a. RC oscillator
b. tuned amplifier
c. voltage regulator
d. RC amplifier

47. The following device is used in a TV receivers, to select a particular channel among the all the other channel
a. RC oscillator
b. tuned amplifier
c. voltage regulator
d. RC amplifier

48. Double tuned amplifiers are used in the following applications
a. Radio and TV receivers
b. Radio and TV transmitters
c. Global position systems
d. Radar transmitter

49. Write down the relationship between bandwidth 'B' and effective Q-factor 'Q' are related by (w is resonant frequency of tuned amplifier)
a. Q=Bw
b. Q=1/(Bw)
c. B=w/Q
d. B=wQ

50. Why tuned amplifiers cannot be used at low frequency?
a. the required gain is low
b. the size of L & C are large
c. the size of L & C are small
d. the required bandwidth is high

51. In a stagger tuned amplifier the bandwidth of two single tuned circuits is displacing at their resonance peaks by an amount

a. to their bandwidth

b. equal to their gain

c. of impedance of each stage

d. equal to LC

52. The gain of a stagger tuned amplifier is
a. very small
b. very large
c. equal to a single stage

54. If the number of stages in stagger tuned amplifier is increased, then the resultant voltage gain is a. decreases
b. increases
c. equal to single stage
d. number of stages times of single stage

55. In stagger tuned amplifier many tuned amplifiers are cascaded each amplifier stage is tuned to different frequencies. This results in

a. decreased gain and bandwidth

b. increased gain and bandwidth

c. increased gain and decreased bandwidth

d. decreased gain and increased bandwidth

56. In the Stagger tuned amplifier, the successive tuned circuits being tuned to
a. the same frequency
b. slightly different frequencies
c. doubles every alternate circuit
d. ten time every successive circuit

57. A tuned amplifier uses a number of single tuned stages in cascade, the successive tuned circuits being tuned to slightly different frequencies is called

a. cascaded single tuned amplifier

b. double tuned amplifier

c. stagger tuned amplifier

d. tuned class B amplifier

58. The bandwidth of the Stagger tuned amplifier is
a. increases because all tuned circuits are tuned to a slightly different frequencies
b. increases because all tuned circuits are tuned to the same frequency
c. decreases because all tuned circuits are tuned to a slightly different frequencies
d. increases because all tuned circuits are tuned to the same frequency

59. The bandwidth for stagger tuned amplifier compared to synchronous tuned amplifier is
a. lower
b. higher
c. same
d. half

60. The pass band for a stagger tuned amplifier is
a. narrow peaks and steep sides
b. flat and 40db slope sides
c. flat and steep sides
d. ripples and steep sides

61. In tuned amplifiers, Unilateralization technique is the process to provide a stability by removing
a. resistive effects
b. reactive effects
c. both resistive and reactive effects
d. high frequency components

62. The advantage of mismatching technique compared to neutralization technique is
a. achieving frequency stability for a certain band of frequencies
b. provide a large feed back between output and input
c. low impedance and low Q for tank circuit
d. achieving frequency stability at all frequencies

63. The tuned amplifier is to be stable when the value of Cb'c of a transistor is a. very small
b. very large
c. zero
d. infinity

64. Except on of the following methods are used to reduce the instability of tuned amplifiers
a. Neutralization

b. resistive
c. inductive
d. combination of inductance and capacitance

67. In tuned amplifier, there is frequency at which tuned input and output circuits remain inductive then there is loop consisting of Li, Lo and Cb'c then the system develops

a. perfect matching is obtained

b. self sustained oscillations

c. gain is increased to infinity

$$w_0 = \frac{1}{\sqrt{(L_i)C_{b'c}}}$$

d. the range of frequency is increased

68. In tuned amplifier, there is frequency at which tuned input and output circuits remain inductive then there is loop consisting of L_i, L_o and Cb'c forms a resonant circuit for which the resonant frequency w_0 is

$$w_0 = \frac{1}{\sqrt{(L_i + L_0)C_{b'c}}}$$

a.

$$w_0 = \frac{1}{L_o C_{b'c}}$$

b.

$$w_0 = \frac{1}{\sqrt{(L_i + L_o)C_{b'c}}}$$

c.

d.

69. In tuned amplifier, there is frequency at which tuned input and output circuits remain inductive then there is loop consisting of L_i, L_o and Cb'c forms a

a. open circuit
b. short circuit

c. resonant circuit

$\frac{4}{\pi}$

d. non resonant circuit

$\frac{2}{\pi^2}$

70. The tuned amplifier bursting into oscillation instead of amplification thus it is said to be

a. oscillator
b. open circuit
c. short circuit
d. unstable

$\frac{1}{\pi^2}$

71. The ratio of maximum collector power dissipation to output power for a Class-B tuned amplifier is

a. $\frac{\pi}{2}$

b.

c. $\frac{2RV_{cc}^2}{\pi^2}$

d. $\frac{2V_{cc}^2}{\pi^2 R}$

72. The power dissipation in the Class-B tuned amplifier is increases from 0 to

a. Vcc

b.

c.

c. 50.5%
d. 78.5 %

75. The expression for the efficiency of the Class-B tuned amplifier is a. $\frac{\pi}{4}\frac{V_i}{V_{cc}}x100$

b. $\frac{\pi}{2}\frac{V_i}{V_{cc}}x100$

c. $\frac{V_i}{V_{cc}}x100$

d. $\frac{V_i}{2V_{cc}}x100$

76. In a class-B tuned amplifier the output of the tuned circuit is coupled to the next stage or output device through a
a. resistor
b. inductor
c. transformer
d. capacitor

77. In a Class-B tuned amplifier, the distortion is reduced by using
a. resistor as a load
b. inductor as a load
c. capacitor as a load
d. tank circuit as a load

78. The Class-B mode of operation means that, the collector current flows in a transistor only for the a. half the period of ac input cycle
b. one fourth the period of ac input cycle
c. full period of ac input cycle
d. operate only in dc input

79. In Class B tuned amplifier the efficiency increases linearly with the output amplitude V_1 and it reaches its maximum when V_1 is equal to the
a. Vcc
b. 2Vcc
c. Vcc/2
d. in-finity

80. The efficiency of Class- B amplifier is
a. decreases linearly with output amplitude
b. increases linearly with output amplitude
c. increases non linearly with Vcc
d. decreases non linearly with output amplitude

81. The expression for conduction angle for Class-C tuned amplifier is a. $2\cos^{-1}\left(\frac{V_p}{V_c}\right)$

b. $\sin^{-1}\left(\frac{V_c}{V_p}\right)$

c. $\sin^{-1}\left(\frac{V_p}{V_c}\right)$

d.

82. The ratio of the amplitude of the fundamental component to the amplitude of the total waveform of a Class-C amplifier is

a. resistor
b. FET
c. transistor collector
d. capacitor

84. Why the output power of Class-C tuned amplifier is more?
a. the gain of CE circuit is low
b. base current is divided in tuned circuit
c. transformer provide high input impedance
d. transfer provide low input impedance

85. In Class-C tuned amplifier a tank circuit is used to
a. provide a matching between input and output
b. operate the circuit in wide band of frequencies
c. increase the gain of the transistor
d. convert a non sinusoidal collector current into a sinusoidal output voltage

86. Small signal tuned amplifiers are operated in the mode
of a. class -A
b. class -B
c. class -C
d. class -AB

87. To handled large power, the following tuned amplifier is used
a. class -A
b. class -B
c. class -C
d. class -AB

88. Tuned class-C amplifier are also called
a. small signal tuned amplifiers
b. large signal tuned amplifiers
c. linear circuit amplifiers
d. stagger tuned amplifiers

89. The commonly used transistor configuration in class-C tuned amplifier is
a. common base
b. common emitter
c. common collector
d. emitter follower

90. Why there is no separable bias resistors are used in class-C tuned amplifiers
a. common emitter amplifier is used
b. the input signal itself drives the transformer into conduction
c. it operates with 100% efficiency
d. it is operate in the RF range

91. The Q in series compensated circuits increase than the gain
a. decreases
b. increases
c. halved
d. remains same

92. The bandwidth of the given amplifier is increases by
a. decreasing high frequency
b. increasing low frequency
c. decreasing capacitance
d. increases capacitances

93. For a shunt peaked amplifier, the value of m is more than there is
a. lower the frequency range
b. non resonance occurs
c. peaking the mid band gain
d. overshoot occurs

94. The series compensated circuits are not preferred because
a. there is sudden drop in gain beyond high frequency
b. there is sudden drop in gain beyond with in high frequency
c. the gain falls smoothly
d. there is no peaking of the mid band gain

95. The shunt compensated circuits are preferred because
a. there is sudden drop in gain beyond high frequency
b. there is sudden drop in gain beyond with in high frequency
c. the gain falls smoothly
d. there is peaking of the mid band gain

96. The frequency response of a given amplifier can be extended
by a. adding few passive circuit elements
b. increasing the signal frequency
c. increasing the operating voltage
d. adding transformer

97. By adding the inductor in series with V_{cc} and collector, the high frequency response of the amplifier is
a. decreases
b. increases
c. remains same
d. narrowed

98. If the inductor is not present in the shunt compensated amplifier, then
a. the frequency response is widened
b. the gain increases
c. decouple the two stages
d. the gain will be less

99. In shunt compensated amplifier the capacitor is compensated by
a. capacitor
b. inductor
c. resistor
d. transistor

100. The technique used to increase the high frequency range without changing the value of C and Rand without decreasing the mid band gain is

a. capacitance is connected in series with the load resistance

b. a transformer is used to couple the load resistance

c. Inductance is connected in series with the load resistance

d. one more resistor is connected in series with the load resistance

101. The change in regulated load voltage for a specified range of line voltage is called
a. load regulation
b. line regulation
c. ripple rejection
d. stabilization factor

102. The ripple rejection for regulator can be defined as
(V_{NL} is no load or open circuit voltage of the supply, V_{FL} full load voltage of the supply, V_{Rout} is output ripple and
V_{Rin} input ripple)
a. $\frac{V_{Rout}}{V_{Rin}}$
b. $\frac{V_{NL}+V_{FL}}{V_{NL}}X100$

c.

d. $\frac{V_{NL}-V_{FL}}{V_{NL}}X100$

103. The load regulation of voltage regulator may be expressed as
(V_{NL} is no load or open circuit voltage of the supply and V_{FL} full load voltage of the supply)
a. $\frac{V_{NL}}{V_{FL}}X100$
b. $\frac{V_{NL}+V_{FL}}{V_{FL}}X100$
c.

a. $\frac{V_{NL}-V_{FL}}{V_{NL}} X100$

b. $\frac{V_{HL}-V_{LL}}{V_{nomial}} X100$

c. $\frac{V_{HL}}{V_{LL}} X100$

d. $\frac{V_{NL}+V_{FL}}{V_{nomial}} X100$

105. The change in the regulated output voltage when the load current changes from minimum to maximum is called

a. load regulation
b. line regulation
c. ripple rejection
d. stabilization factor

106. The output voltage of an unregulated power supply varies due to change in

a. collector voltage
b. transistor operating point
c. input base current of transistor
d. input supply voltage, load resistance and temperature

107. The voltage regulation of voltage regulator may be expressed as (V_{NL} is no load or open circuit voltage of the supply and V_{FL} full load voltage of the supply)

a. $\frac{V_{NL}-V_{FL}}{V_{NL}} X100$

b. $\frac{V_{NL}-V_{FL}}{V_{FL}} X100$

c. $\frac{V_{NL}}{V_{FL}} X100$

d. $\frac{V_{NL}+V_{FL}}{V_{FL}} X100$

108. For better power supply, the required value of voltage regulation is

a. smaller
b. larger
c. zero
d. infinity

109. The ability of a power supply to maintain a constant output voltage inspite of ac input voltage fluctuations and changes in load resistance is called

a. cut of frequency

b. voltage regulation

c. bandwidth

d. gain

110. The stabilization factor of regulator is defined as

a. variation of output voltage with respect to input frequency
b. variation of input frequency with respect to input voltage
c. variation of output voltage with respect to input voltage
d. variation of output frequency with respect to input voltage

111. The sampling resistor is used in series voltage regulator to

a. to increase the operating frequency
b. controls the amount of feedback
c. reduce the input impedance
d. to increase the output impedance

112. The transistor is used in shunt voltage regulator to

a. high power dissipation
b. high circuit efficiency
c. requires some protection circuit
d. work with lower voltage

114. The following is the limitations of the Zener Voltage Regulator circuit
a. voltage always remains constant
b. limit to the maximum current that can pass through the zener
c. regulation is not obtained for any value of input voltages
d. the required input voltage is low

115. In a shunt regulator large current flows through load resistance and voltage is
a. decreased
b. increased
c. remains constant
d. doubled

116. The control element of series regulator is connected in
a. series between input and output
b. parallel between input and output
c. input circuit
d. output circuit

117. The control element of shunt regulator is connected in
a. series between input and output
b. parallel between input and output
c. input circuit
d. output circuit

118. The power dissipation across regulating element of series regulator compared to shunt regulator is a. lower
b. higher
c. same
d. doubled

119. The power dissipation across regulating element of shunt regulator compared to shunt regulator is
a. lower
b. higher
c. same
d. doubled

120. The major draw back of series regulator is
a. high power dissipation
b. high circuit efficiency
c. requires some protection circuit
d. work with lower voltage

121. In the over Voltage protection circuit of voltage regulator, the zener diode is connected between
a. input and output terminals
b. input and load terminals
c. output and ground terminals
d. input and ground terminals

122. The disadvantage of simple current limiting circuit is
a. current limiting rates are very low
b. required high drive currents
c. large values of resistors are required
d. power dissipation across the transistor is very large

123. The following are used to protect the circuit from the overload current except
a. fuse wire
b. zener diodes
c. diodes
d. resistors

124. In a Active Current Limited circuit the following component is connect between the current limit and current sense terminals

a. resistor

b. capacitor

c. inductor

d. transformer

d. 515 Ω

126. The constant load current limiting is employed in a

a. low voltage current regulator circuits
b. high voltage current regulator circuits
c. low current voltage regulator circuits
d. high current voltage regulator circuits

127. The fold back current limiting is employed in a

a. low voltage current regulator circuits
b. high voltage current regulator circuits
c. low current voltage regulator circuits
d. high current voltage regulator circuits

128. In the voltage regulators the output is shorted or load current exceeds the set value, then the current through the series transistors is

a. increases

b. folds back

c. remains same

d. doubled

129. To limit the power dissipation across the transistor, the input voltage is

a. equal to the impedance of the input
b. very high to the output voltage
c. twice that of the output voltage
d. equal to the output voltage

130. In a simple circuit , protection is provided by using a fuse, so that when the

a. low voltage flows
b. high voltage flows
c. current of low values flows
d. current excess of the rated values flows

131. The Stand by Current Drain is the current drawn by the voltage regulator circuit, when load current is

a. unity
b. zero
c. high
d. infinity

132. The Sense Voltage of the voltage regulator is the voltage between

a. input and output currents
b. input and output voltages
c. current sense and current limit terminals
d. voltage sense and current limit terminals

133. The output of a voltage regulator is always

a. AC
b. DC
c. pulse
d. triangular signal

134. The ideal value of stability factor of a voltage regulator is

a. 0
b. 5
c. 10
d. 0.5

135. The performance of voltage regulator is better when the value of temperature coefficient and output resistance are a. both are low

b. both are high
c. low and high respectively
d. high and low respectively

136. The ideal value of regulation of a voltage regulators is

a. 0%
b. 25%
c. 50%
d. 100%

137. The ideal value of Input resistance of a voltage regulators is

b. in order ohms
c. in order of hundreds of ohms
d. ∞

139. The ideal value of temperature coefficient of a voltage regulators is
a. 0 mv/0c
b. 10mV/0c
c. 100mv/0c
d. ∞

140. The ideal value of ripple rejection ratio of a voltage regulators is
a. 0 %
b. 25%
c. 50%
d. 100%

141. In the voltage multipliers the capacitor and diode sections are cascaded then
a. the output voltage increased
b. reduces the required input voltage
c. increases the ripple
d. increases the operating frequency

142. The application of voltage multipliers is
a. increases the output voltage highly
b. lowers the output voltage
c. lowers the frequency range
d. provides matching

143. The disadvantage of voltage quadrupler compared to voltage doubler is
a. output voltage is high
b. output resistance is high
c. operating frequency is reduced
d. ripple voltage is high

144. The peak detector measure the output as
a. peak to peak value
b. average value
c. rms value
d. mean value

145. In voltage quadrupler the diode is connected across the output, this results
a. increase the output voltage
b. increase the ripple
c. increase the operating frequency
d. reduce the required input voltage

146. In the half wave doubler circuit the output capacitor is charged
a. once in a quarter cycle
b. only once during the full cycle
c. only once during the half cycle
d. twice during the full cycle

147. Peak detector is used when the
a. output is symmetric
b. positive and negative peak are same
c. positive peak and negative peak are not same
d. input is symmetric

148. In voltage doubler circuit the load resistance is
a. large other wise the output capacitor charge quickly
b. large other wise the output capacitor discharge quickly
c. small other wise the output capacitor discharge quickly
d. small other wise the output capacitor charge quickly

149. The charge across the output capacitor of voltage doubler circuit is
a. V_p
b. $V_p/2$
c. $2V_p$
d. 0

150. In a full wave voltage regulator, used as a multiplier, the voltage across the load resistance is
a. V_p
b. $V_p/2$
c. $2V_p$
d. 0

151. The function of error amplifier in IC 723 voltage regulator is

a. compares the constant current pulse and zener voltage
b. forces the zener to operate at a fixed point
c. compares the pulse from constant current source and reference amplifier
d. compares a sample of output voltage and the reference voltage

152. The error signal generated by error amplifier of IC 723 voltage regulator is controls the

a. conduction of series pass transistor
b. zener operating point
c. sample of output from current source
d. reference amplifier

153. The basic elements of IC723 regulator are (b)sswitch , pulse generator and voltage source and filter

a. switch , pulse generator and voltage source and filter
b. voltage reference source, an error amplifier, a series pass transistor and a zener diode
c. switch, voltage reference source, an error amplifier and control element
d. switch , control element, a current limiting transistor and pulse generator

154. The function of constant current source amplifier in IC 723 regulator is

a. provides a current pulse to the zener
b. forces the zener to operate at a fixed point
c. compares the sample of output voltage and reference voltage
d. gives the reference voltage to the feed back

155. The IC 723 general purpose regulator can be adjusted for a

a. narrow range of negative voltage
b. narrow range of positive and negative voltage
c. wide range of positive or negative voltage
d. narrow range of positive voltage

156. The basic elements of IC regulator are

a. switch , pulse generator and voltage source and filter
b. voltage reference source, an error amplifier, a series pass transistor and a current limiting transistor
c. switch, voltage reference source, an error amplifier and control element
d. switch , control element, a current limiting transistor and pulse generator

157. All the elements of IC Regulator are

a. distributed components
b. fabricated at least two chips
c. fabricated on a single chip
d. some are fabricated on a chip and other are open

158. The disadvantages of IC regulators is

a. high performance
b. small size
c. easy to use
d. high cost

159. The limitation of IC 723 regulator is

a. large size
b. adjusted for wide range of positive and negative voltage
c. no built thermal protection
d. high cost

160. The advantage of IC 723 regulator is

a. large size
b. adjusted for wide range of positive and negative voltage
c. no built thermal protection
d. high cost

161. The expression for the current supplied to the load from 7805 three terminal voltage regulator is

a. $\frac{V_R}{R}$
b. I_Q
c. $\frac{R}{V_R}$
d. $\frac{V_R}{R} + I_Q$

162. A current source circuit using a three terminal voltage regulator can be designed for a desired value by choosing an appropriate value of

a. R

b. I_Q
c. V_R
d. V_0

163. The type and output of IC 7908 is
a. Positive Voltage Regulator and -8V
b. Positive voltage Regulator and 8V
c. Negative Voltage Regulator and -8V
d. Negative Voltage Regulator and 8V

164. The type and output of IC 7905 is
a. Positive Voltage Regulator and -5V
b. Positive voltage Regulator and +5V
c. Negative Voltage Regulator and -8V
d. Negative Voltage Regulator and 8V

165. The output voltage of 5V from 7805 three terminal voltage regulator requires the maximum input voltage of
a. 5V
b. 10V
c. 35 V
d. 55V

166. IC 7800 are
a. three terminal, positive voltage regulators
b. two terminal negative voltage regulators
c. three terminal negative voltage regulators
d. two terminal positive voltage regulators

167. In T0 220 type plastic package voltage regulators the three pins are
a. 1-output, 2-ground, 3-input
b. 1-input, 2-ground, 3-output
c. 1-input, 2-output, 3-ground
d. 1-ground, 2-input, 3-output

168. In T0-3 type Metal package voltage regulator the case is act as a
a. input
b. output
c. ground
d. supply

169. IC 7900 are
a. three terminal, positive voltage regulators
b. two terminal negative voltage regulators
c. three terminal negative voltage regulators
d. two terminal positive voltage regulators

170. IC 7805 can be used as a a.
5 V voltage source b.
10A current source c.
50 V voltage source
d. 0.5A current source

171. The linear mode regulators are used for
a. low current applications
b. medium current applications
c. high voltage applications
d. high current applications

172. In the linear mode power supply, the series pass transistor operate in
a. cut off region
b. saturation region
c. active region
d. both cutoff and saturation region

173. The purpose of using the filter circuit in DC to DC converter is
a. convert the AC into DC
b. amplify the AC
c. reduce the ripple
d. generate the AC

174. A current regulator gives a constant output
a. ac voltage
b. dc voltage
c. ac current
d. dc current

a. low
b. high
c. same
d. doubled

176. DC to DC converter are used when the
a. small AC voltage is required from a large AC voltage
b. large DC voltage is required from small DC voltage
c. large DC voltage is required from a large AC voltage
d. small AC voltage required from a large DC voltage

177. Bu using the following circuits we can make a DC to DC converter
a. oscillator and amplifier
b. transformer and amplifier
c. oscillator, transformer, rectifier and filter
d. rectifier and filter

178. The function of oscillator in DC to DC converter is
a. amplify the applied DC
b. provide a reference source
c. generate a large AC using low DC drive
d. generate a low AC corresponding to a low DC

179. The purpose of a transformer used in DC to DC converter is
a. amplification
b. filtering c.
matching d.
generation

180. The function of Rectifier in DC to DC converter is
a. convert large DC to AC
b. convert a large AC to DC
c. filter the AC output
d. reduce the ripple

181. The power dissipation of a switching voltage regulators compared to series voltage regulators is
a. very high
b. low
c. same
d. doubled

182. The efficiency of a switching voltage regulators compared to series voltage regulators is a. high
b. low
c. same
d. halved

183. The output voltage of switching regulator is a function of
a. input voltage and frequency
b. ON and OFF times
c. ON time and input voltage
d. duty cycle and the input voltage

184. For the given value of input voltage and the time period is constant, then the output voltage of switching regulator is

a. directly proportional to OFF time
b. inversely proportional to OFF time
c. directly proportional to the ON time
d. inversely proportional the ON time

185. For step down switching regulator the average output value compared to input voltage is
a. always less
b. always higher
c. same
d. always unity

186. The basic elements of switch regulator are
a. switch , pulse generator and voltage source and filter
b. control element and voltage source
c. switch and control element

188. To improve the efficiency of a switch regulator, the following device is used

a. step-up transformer
b. series pass transistor
c. variable resistor
d. variable inductor

189. In switching regulator, the series pass transistor is switched in

a. saturation region
b. active region
c. between active and saturation region
d. between cutoff and saturation

190. In Switching regulator, the series pass transistor is switched such that it produces

a a. pulse width modulated square wave output
b. pulse width modulated sinusoidal output
c. pulse amplitude modulated triangular output
d. frequency modulated triangular output

191. The series pass transistor of SMPS is switched between cutoff and saturation at a high frequency, which produces a

a. pulse width modulation
b. pulse amplitude modulation
c. frequency modulation
d. phase modulation

192. What is UPS?

a. unique power supply
b. uninterruptable power supply
c. uniform phase shifter
d. universal power supply

193. The SMPS operate at

a. any frequency
b. high frequencies
c. very low frequencies
d. tuned to a single frequency

194. The SMPS operate at high frequencies hence

a. it needed bulky components
b. it operate in active region
c. less filtering is required
d. transformer is required

195. The following are the advantages of SMPS except the

a. better voltage regulation
b. less power dissipation
c. it can operate under low AC input voltages
d. it is large and complex

196. What is SMPS?

a. Single Motor Power Supply
b. Shunt Mode Power Supply
c. Series Mode Power Supply
d. Switched Mode Power Supply

197. The advantage of SMPS is

a. no transformer at the input
b. expensive
c. circuit is complex
d. radio frequency due to ON-Off switching

198. Which of the following is not the advantage of SMPS

a. transformer at the input
b. operate under low A/C input voltages
c. better voltage regulation
d. small and compact

199. The control element of SMPS is operated in

a. cutoff region only b. active region only

d. surface metal power supp