JNTU ONLINE EXAMINATIONS [Mid 2 - EMTL]

1.The ideal conducting boundary is analogous to
a. The transmission line terminated with its characteristic impedance
b. Open circuit on the transmission line
c. Short circuit on the transmission line
d. The transmission line terminated with any load.

2.For normal incidence of the wave on perfect conductor
a. Surface current doesn't exist
b. Surface current exist
c. Conduction current exist
d. Free charge exists on the surface

3.At the dielectric conductor interface the wave
a. Complete transmission takes place
b. Complete reflection takes place
c. Both reflection and transmission takes place
d. No transmission and no reflection take place.

4.At the dielectric conductor interface
a. The H is double of the incident field
b. The E is double of the incident field
c. The H is half of the incident field
d. The E is half of the incident field

5.The magnitude of the E at the dielectric-conductor interface
a. Zero
b. Infinity
c. Twice to that of the incident field
d. Half to that of the incident field

6.The conductivity of an ideal conductor is
a. Zero
b. Unity
c. Infinity
d. Two

7.For normal incidence of a wave on dielectric-conductor interface the magnitude of reflection coefficient is
a. Unity
b. Zero
c. Infinity
d. In between 0 and 1

8.The electric field within a conductor is
a. Infinity
b. Zero
c. Unity
d. Equal to surface current

9.A standing wave
a. Progresses with less than light velocity
b. Progresses with more than light velocity
c. Progresses with light velocity
d. Does not progress

10. The unit for surface current
a. Ampere
b. Ampere/m
c. Ampere/m2
d. ampere/m3

11. For normal incidence ,the angle of incidence is
a.
b.
c.
d.

12. In the case of perpendicular polarization
a. The H is perpendicular to the plane of incidence and parallel to the reflecting surface
b. The E is perpendicular to the plane of incidence and parallel to the reflecting surface
c. The H is Parallel to the plane of incidence and perpendicular to the reflecting surface
d. The E is parallel to the plane of incidence and perpendicular to the reflecting surface

13. The expression for snells law is
a. Sin /Sin = Sqrt( )
b. Sin /Sin = Sqrt( )
c. Sin /Sin = Sqrt( ))
d. Sin /Sin = Sqrt( ))

14. The refractive index of a dielectric material
a. Sqrt( )
b. Sqrt( )
c. Sqrt( )
d. Sqrt( )

15.As per the boundary condition
a. The normal components of E is continuous across the boundary.
b. The tangential components of E is continuous across the boundary.
c. The tangential components of D is continuous across the boundary.
d. The normal components of H is continuous across the boundary

16. The absorption of power in propagation through the dielectric is
a. High
b. Low
c. Zero
d. Infinity

17. The dimension of a reflection coefficient is
a. A/m
b. V/m
c. No unit
d. V/A

18. Expression for reflection coefficient in terms of SWR(s)
a. I Γ I =(s2+1)/(s2-1)
b. I Γ I =(s+1)/(s-1)
c. I Γ I =(s2-1)/(s2+1)
d. I Γ I =(s-1)/(s+1)

19. The range of reflection coefficient is
a. 0 to 1
b. -1 to 1
c. 0 to infinity
d. - infinity to + infinity

20. If Γ is reflection coefficient and is transmission coefficient then
a. = 1+Γ
b. IΓ I = 1+
c. = 1-I Γ I
d. IΓI = 1-

21. The another name of Brewster angle is
a. Angle of reflection

b. Polarizing angle
c. Angle of transmission
d. Non polarizing angle

22.During total internal reflection wave under goes
a. A phase change
b. Polarization change
c. Magnitude change
d. No change in the phase

23. The Total internal reflection can takes place
a. If the wave travels from Rarer to Denser medium
b. If the wave travels from Denser to Rarer medium
c. If the wave travels from Denser to Denser medium
d. If the wave travels from Rarer to Rarer medium

24.Under total internal reflection the reflection coefficient for both polarizations is
a. A real quantity
b. An imaginary quantity
c. A complex quantity
d. May be real or imaginary quantity

25. For total internal reflection the fields in the second medium
a. Vanish completely
b. Do not vanish
c. No change with angle of incidence
d. Infinite at the interface

26.When incident angle is Brewster angle then
a. Complete reflection takes place
b. No reflection takes place
c. Partial reflection only takes place
d. Partial transmission only takes place

27. Brewster angle is given by
a. TanΘ=Sqrt( )
b. TanΘ=Sqrt( )
c. TanΘ=Sqrt( )
d. TanΘ=Sqrt( )

28. Brewster angle concept is applicable for
a. Elliptical polarization
b. Perpendicular polarization
c. Parallel polarization
d. Linear polarization

29. The gas laser uses
a. Brewster effect
b. Total internal reflection concept
c. Critical angle concept
d. Both Brewster effect and total internal reflection concept

30. Surface impedance is a useful parameter in computing
a. Poynting vector
b. Dielectric losses
c. Conductor losses
d. Magnitude of electric field

31. The surface resistance
a. Increases with frequency
b. Decreases with frequency
c. Increases with conductivity
d. Decreases with frequency and Increases with conductivity

32. Electric and magnetic fields which are parallel
a. Constitute a power flow
b. Constitute infinite power flow
c. Do not constitute any power flow
d. Constitute unit magnitude power flow

33. The surface impedance is defined as
a.
b.
c.
d.

34.At very high frequency the amount of power penetration into the conducting medium
a. Very high
b. High
c. Low
d. Very low

35. The unit for pointing vector is
a. Watts/m
b. Watts/m2
c. Watts/m3
d. Watts

36. The pointing vector gives
a. The direction of E field
b. The direction of H field
c. The direction of wave propagation
d. The direction of both E and H fields

37. The pointing vector in free space is given by
a.
b.
c.
d.

38. The average power density is given by
a. 1/2 Re (E X H)
b. 1/2 Re (E X H *)
c. 1/2 Re (E* X H)
d. 1/2 Re (E* X H*)

39. Poynting theorem is strictly valid for
a. Free space
b. Open surface only
c. Spherical surface only
d. Any closed surface

40.A uniform plane wave traveling in a dielectric of refractive index 2 is incident at the dielectric air surface. Then the critical angle at the interface is
a. Sin
b. Sin
c. Sin
d. Tan

41. In a region E= 100( ) e and H=( ) e . Then average power flow density is
a.
b.
c.
d.

42.A uniform plane wave traveling in air with a power density of 2W/m_2. Then the electric field strength of the wave is
a.
b.
c.
d.

43.A uniform plane wave having 25 W/m2 power density is normally incident on a dielectric sheet. If the transmission coefficient is 3/5 then the power density of the transmitted wave is
a. 9 W/m2
b. 18 W/m2
c. 27 W/m2
d. 15 W/m2

44. The magnetic field at the surface of a good conductor is 2A/m. The frequency of the field is 600 M Hz. The surface rms current density is
a. 1/2 A/m
b. 1/2 A/m2
c. 2 A/m
d. 2 A/m2

45.A light beam is incident from air to a dielectric medium with an angle of incidence . Then angle of reflection is
a.
b.
c.
d.

46. If reflection coefficient =-1/2 then the swr is
a. Zero
b. One
c. 1/3
d. 3

47.When the angle of incidence is equal to critical angle then the angle of transmission is
a.
b.
c.
d.

48. Consider a uniform plane wave traveling in free space. If the E is 1 V/m, then the H is equal to
a.
b.
c.
d.

49. If the propagation constant is a real quantity then the wave
a. Decreases linearly
b. Decreases exponentially
c. Increases exponentially
d. Increases linearly

50. The propagation constant r for a wave without attenuation
a.
b.
c.
d.

51.At the surface of a perfect conductor
a. Normal components of E is zero
b. Tangential components of H is zero
c. Tangential components of E is zero
d. Normal components of D is zero

52. The wave along a co-axial transmission line is an example for
a. Unguided wave
b. Uniform plane wave
c. Light wave
d. Guided wave

53. Consider an em wave propagating between a pair of parallel perfect conducting planes of infinite extent. To determine the field components in the region between the planes we need
a. Appropriate boundary conditions
b. Attenuation constant
c. Phase constant
d. Frequency of the signal

54.Guided waves are the waves
a. That are guided along or over conducting or dielectric surface
b. Uniform plane waves propagating in the free space
c. Waves that are propagating within the conductor.
d. Light waves

55. If the distance between the planes is infinite then the wave in that direction is
a. Non uniform
b. Uniform
c. Increases linearly
d. Increases exponentially

56. For the wave propagation in z direction
a. There must be a z component of E or H
b. There must be a x component of E or H
c. There must be a y component of E or H
d. There must be a x and y components of E or H

57. For unattenuated wave , the wave equation is
a.
b.
c.
d.

58. For a z propagating em wave , if propagation constant is real then
a. The wave travels in z direction
b. No wave motion
c. Wave travels with an exponential decrease in amplitude
d. Wave travels with no change in amplitude

59. The lowest order mode of TE waves between parallel conductors
a.
b.
c.
d.

60. The propagating velocity of TE waves
a. Independent of frequency
b. Depends on frequency
c. Depends on square of the frequency
d. Varies inversely with frequency

61. The equiphase surfaces progresses along the guide with a velocity
a. Light velocity
b.
c.
d.

62. For a z directed guided wave between parallel conducting planes, the equiphase plane for each of the field components is
a. Any Y-Z plane
b. Any X-Z plane

c. Any X-Y plane
d. Z=0 plane only

63. For a z directed guided wave between parallel conducting planes, the standing wave distribution across the guide in
a. Z - direction
b. Y -direction
c. X - direction
d. Y and Z directions

64. For a z directed TE wave
a. Hz = 0
b. Ez = 0
c. Hz = Ez = 0
d. E = 0

65. If frequency is less than critical frequency then the guided wave between parallel conducting planes
a. Progresses without any attenuation
b. Attenuates linearly
c. Attenuates exponentially
d. Have value for phase constant

66. The frequency at which, wave motion ceases is called
a. Lower 3-db frequency
b. Cut-off frequency
c. upper 3-db frequency
d. Maximum frequency

67. Other name of TE wave is
a. E wave
b. H wave
c. E & H wave
d. Uniform plane wave

68. For a TEm0 mode of propagation of guided waves , the minimum value of m is
a. Zero
b. One
c. two
d. Three

69. Cut-off frequency is a frequency below which
a.
b.
c.
d.

70. The propagation constant between parallel plates is
a.
b.
c.
d.

71. The velocity of propagation of equiphase surfaces along the guide is
a. Guide velocity
b. Light velocity
c. Phase velocity
d. Group velocity

72. In TMm0 mode of propagation of guided waves , the minimum value of m is
a. One
b. two
c. Zero
d. Three

73. The dominant mode has
a. Highest cut-off frequency
b. Average cut-off frequency
c. Lowest cut-off frequency
d. Any cut-off frequency

74. For a z directed TM wave
a.
b.
c.
d. H = 0

75. Other name of TM wave is
a. E wave
b. H wave
c. E & H wave
d. Uniform plane wave

76.When a wave of 6 G Hz propagating in parallel conducting planes separated by 'd'cm. then the cutoff wavelength is
a. 2d cm
b. 1.5 d cm
c. d cm
d. 0.5 d cm

77. If operating frequency is greater than the cutoff wavelength, then
a. ɑ = infinity
b. = Zero
c.
d.

78. Group velocity , phase velocity and free space velocity are related by
a.
b.
c.
d.

79. TEM mode is equal to
a. TE
b. TE
c. TM
d. TM

80.Attenuation factor for a TEM wave is proportional to
a. Frequency
b. Sqrt(Frequency)
c. Conductivity
d.

81. The attenuation constant for a TEM mode of propagation is
a. Low
b. High
c. Infinity
d. Zero

82. The velocity of TEM wave
a. Depends on frequency
b. Depends on the medium
c. Depends on the conductivity
d. Independent of the frequency

83.Across a cross section normal to the direction of propagation, the amplitudes of fields of a TEM wave
a. Constant
b. Increases linearly
c. Increases exponentially
d. Decreases exponentially

84. For a TEM wave
a.

b.
c.
d.
85. TEM wave exists in
a. Between parallel plates
b. A hollow wave guide
c. A dielectric filled wave guide
d. A micro strip
86. Cut-off frequency for a TEM wave is
a. Infinity
b. Zero
c. 2 G Hz
d. 3 G Hz
87.A mode which does not propagate is
a. Principal wave
b. Evanescent mode
c. Dominant mode
d. TE mode
88. The cut-off wave length for a TEM wave is
a. Zero
b. Infinity
c. Low
d. High
89. The wave impedance for a z directed TM wave is
a.
b.
c.
d.
90.When frequency approaching infinity, the wave impedance of TE and TM waves between parallel conducting plates
a.
b.
c. Approaches infinity
d. Approaches zero
91. For TM waves the attenuation is minimum at
a.
b.
c.
d. $f = f_c$
92. The wave impedance over the cross section of the guide is
a. Constant
b. Increases with frequency
c. Decreases with frequency
d. Increases exponentially
93. The free space wavelength of a wave propagation at 6 G Hz is
a. 3 cm
b. 4 cm
c. 5 cm
d. 6 cm
94. For a TEM wave , the wave impedance is
a.
b.
c.
d.
95.When a wave is traveling in Z direction , then its impedance is given by
a.
b.
c.
d.
96. Consider a wave of 3 G Hz propagating in parallel conducting plates separated by 3 cm. Then the lambda $_c$ is
a. 3 cm
b. 1.5 cm
c. 6 cm
d. 1/3 cm
97. Consider a wave propagating in parallel conducting plates separated with = 6 times 10_8 m/s. Then is
a.
b.
c.
d.
98. If a dielectric of = 4 is filled in between parallel plate waveguide then the velocity of wave propagation is
a.
b.
c.
d.
99. In a coaxial transmission line electric and magnetic fields are
a. Confined to a dielectric medium
b. Confined to the inner conductor
c. Confined to the outer conductor
d. Not Confined to dielectric medium
100. Parallel plate transmission line fabricated on a dielectric substrate using printed circuit technology often called as
a. Integrated circuit
b. Strip line
c. Wave guide
d. Resonator
101. In a transmission line parameters
a. G=1/R
b.
c. RG=1
d. R/G=1
102. The electrical length of the transmission line is equal to
a. Physical length
b.
c.
d.
103. The line parameters R, L, G, C are
a. Discrete
b. Lumped
c. Uniformly distributed
d. Non uniformly distributed
104. The ratio of positively traveling voltage wave to positively traveling current wave at any point on the transmission line is known as
a. Load impedance
b. Characteristic impedance
c. Line impedance
d. Source impedance
105. A two conductor transmission line supports
a. TE mode wave only
b. TM mode wave only
c. Both TE and TM mode waves

d. TEM mode wave

106. In solving transmission line problems we use the following circuit quantities
a. E and H
b. D and B
c. V and I
d. J and E

107. Two wire transmission lines consists of a pair of parallel conducting wires separated by
a. Non uniform distance
b. Zero distance
c. Uniform distance
d. Infinite distance

108. In a TEM mode of propagation
a. E is transverse to the direction of propagation
b. H is transverse to the direction of propagation
c. Both E and H are transverse to the direction of propagation
d. Neither E nor H are transverse to the direction of propagation

109. For a two wire transmission line at microwave frequencies
a.
b.
c.
d.

110. In a transmission line the voltage and current standing waves are
a. 180$_0$ out of phase along the line
b. 0$_0$ out of phase along the line
c. 90$_0$ out of phase along the line
d. 270$_0$ out of phase along the line

111. The unit for electrical length of the line is
a. Radians
b. Meters
c. Feet
d. Degrees

112. When the dielectric of a lossy microwave transmission line is not air, then the phase velocity
a. Smaller than velocity of light in vacuum
b. Greater than velocity of light in vacuum
c. Equal to the velocity of light in vacuum
d. Inversely proportional to the velocity of light in vacuum

113. When a line is called as a flat line then standing wave ratio is
a. Unity
b. Zero
c. Infinity
d. Two

114. The unit for attenuation constant is
a. dB/m
b. Radian / m
c. Volt/m
d. Amp./m

115. The phase velocity of transmission line is
a.
b.
c.
d.

116. In a transmission line when termination impedance is equal to characteristic impedance of that line then the reflection coefficient is
a. Unity
b. Infinity
c. Zero
d. Equal to transmission coefficient

117. In a transmission line the distance between two successive minima is
a.
b.
c. λ
d.

118. The expression for group velocity is
a.
b.
c.
d.

119. For a low loss line the phase velocity is
a. Increases with frequency
b. Decreases with frequency
c. Approximately constant
d. Increases with square of frequency

120. For minimum attenuation
a. C=LG/R
b. C=LR/G
c. C=G/LR
d. C=R/LG

121. For a low loss line phase constant
a.
b.
c.
d.

122. A lossy transmission line
a. Non Dispersive
b. Dispersive
c. Have infinite loss
d. It must be a distortion less line

123. For a lossless line if , the impedance at any point on the line is
a.
b.
c.
d.

124. For a loss less line
a. R/L = G/C
b. R = G
c. R=G=0
d. RL = GC

125. For a lossless line the characteristic impedance is
a.
b.
c.
d.

126. The condition for a distortion less line is
a. L/R = G/C
b. RL = GC
c. R/L = C/G
d. R/L = G/C

127. For a lossless line the normalized impedance inverts for every

a.
b.
c.
d. λ

128. For a lossless line the line characteristics repeat for every
a.
b.
c.
d. λ

129. A lumped loaded lines behaves as a
a. High pass filter
b. Band pass filter
c. Band reject filter
d. Low pass filter

130. Effect of loading of a transmission line upon its characteristic impedance is
a. Z_0 increases
b. Z_0 decreases
c. Z_0 becomes constant
d. No change

131. The loading coils are
a. Lumped inductors
b. Lumped capacitors
c. Distributed inductor
d. Distributed capacitor

132. The loading practice generally restricted to
a. Open wires only
b. cables only
c. strip lines
d. wave guides

133. If and are the total inductance and total capacitance of the line including the loading coils , then its cutoff frequency is given by
a.
b.
c.
d.

134. By inserting inductance in series with the line to increase the inductance is called
a. Unloading
b. Loading
c. Feedback
d. Open circuit

135. For a loaded line the alteration for delta > f_c
a. Decreases rapidly
b. Rises rapidly
c. No change
d. Zero

136. For ocean cables the type of loading used is
a. Lumped loading
b. Continuous loading
c. Patch loading
d. Unmatched loading

137. Hysteresis and eddy current losses in loading coils leads to
a. Increase in L
b. Decrease in L
c. Increase in R
d. Decrease in R

138. In a continuously loaded cable
a. α increases uniformly with increase in frequency
b. α decreases uniformly with increase in frequency
c. α increases uniformly with decrease in frequency
d. α decreases uniformly with decrease in frequency

139. For a lossless line if = 50 ohms and = 2.5 x m/s then the inductance of the line is
a.
b.
c.
d.

140. A lossless line has = 100 ohms and β = 10 rad/m operating at 100 M Hz. Then the capacitance of the line per meter is
a. 1.0 pF /m
b. 1.0 micro farad/m
c. 100 farads/m
d. 1.0 nano farad/m

141. A low loss transmission line operating at 100 M Hz has L=0.25 micro henry/m , C= 100pF/m. Then the phase constant is
a.
b. π
c.
d.

142. If 100 meter length transmission line has α = 0.05Np/m , the attenuation at the end of the line
a. 43.4 dB
b. 5 dB
c. 50 dB
d. 34.3 dB

143. A transmission line operating at 100 M Hz hasβ= π rad/m . Then the phase velocity is
a.
b.
c.
d.

144. high frequency line has L= 0.1 mH/Km, C= 0.1 micro farads/Km . If R & G are negligible , then characteristic impedance is
a. 50 Ohms
b. 100 Ohms
c. 200 Ohms
d. 400 Ohms

145. A transmission line operating at 1 G Hz has L=1 micro henry/m , C= 1pF/m, R= G=0. Then its characteristic admittance is
a. 10 mhos
b. 0.01 mhos
c. 0.001 mhos
d. 0.1 mhos

146. If the phase velocity is 4.5 x m/s then the group velocity is
a.
b.
c.
d.

147. A transmission line operating at 2 M Hz has voltage reflection coefficient of 0.5 . then VSWR is

a. 1
b. 2
c. 3
d. 4

148. One neper is equal to
a. 6.86 dB
b. 8.86 dB
c. 8.68 dB
d. 10 dB

149. If a transmission line is terminated with a short circuit then the I/P impedance of the line is
a.
b.
c.
d.

150. Input impedance of a short circuited transmission line becomes
a. Pure resistive
b. Pure reactive
c. complex quantity
d. Zero

151. If , the input impedance of a open circuited line will be
a. Inductive
b. Capacitive
c. Resistive
d. Complex quantity

152. If , the input impedance of short circuited line will be
a. Capacitive
b. Inductive
c. Resistive
d. Complex quantity

153. the reflection coefficient for a short circuited transmission line is
a. Zero
b. Infinity
c. +1
d. -1

154. The SWR of a open circuited transmission line is
a. Zero
b. Infinity
c. 1
d. 2

155. The relation between and is given by
a.
b.
c.
d.

156. The SWR of a transmission line which is terminated with its characteristic impedances given by
a. 1
b. 2
c. zero
d. infinity

157. The incident power is fully absorbed by the load if
a.
b.
c.
d.

158. The maximum power transfer is possible when
a. Transmission line is open circuited
b. Transmission line is matched with the load
c. Transmission line is short circuited
d. Transmission line is connected to a load which is not equal to

159. Quarter wave transformer is
a. Voltage sensitive device
b. Current sensitive device
c. Frequency sensitive device
d. Power sensitive device

160. A short circuited $\lambda/4$ line can be used as
a. A conductor
b. An insulator
c. A capacitor
d. An inductor

161. The range of UHF is
a. 30 M Hz to 300 M Hz
b. 300M Hz to 3 G Hz
c. 3 M Hz to 30 M Hz
d. 3 G Hz to 30 G Hz

162. At the input terminals a short circuited line appears as
a. Matched termination
b. Short circuit
c. Open circuit
d. Improper terminator

163. A line may be used to transform any resistance to an impedance with a magnitude equal to
a. R_0 of the line
b. Z_0 of the line
c. $1/R_0$ of the line
d. $1/Z_0$ of the line

164. A half wave lossless line transfers the load impedance to the input terminals as
a.
b.
c.
d.

165. when the length of a line is an integral multiples of $\lambda/2$ then Tan βl is equal to
a. Unity
b. Zero
c. Infinity
d. Two

166. Which of the following is a one to one transformer
a.
b.
c.
d.

167. A $\lambda/4$ line may be considered as
a. Voltage inverter
b. Current inverter
c. Impedance inverter
d. Power inverter

168. An equation applies to
a. line

b. line
c. line
d. line

169. The center of the smith chart represents
a. matched load impedance
b. Source impedance
c. Line impedance
d. Reactive load impedance

170. On a smith chart real Γaxis represents
a. Any impedance
b. Purely resistive impedance
c. Purely reactive impedance
d. Any admittance

171. On a transmission line are separated by the distance of
a. λ/4
b. λ/8
c. λ/2
d. λ

172. In a transmission line at a point of there is a
a.
b.
c.
d.

173. On a smith chart for x=0 circles the center is at
a. (1,0)
b. (1,1)
c.
d.

174. A complete revolution around the smith chart represents a distance of
a. on the line
b. on the line
c. on the line
d. λ on the line

175. The smith chart can be used as
a. Impedance chart only
b. Admittance chart only
c. Impedance chart as well as Admittance chart
d. Normalized admittance chart only

176. The constant r and constant x circles all pass through the point
a.
b.
c.
d.

177. The upper half of the smith chart represents
a.
b. +jx
c.
d.

178. When a transmission line is shorted , the first voltage minimum occurs at
a. Source
b. A distance of λ/2 from the load
c. Load
d. A distance of λ/4 from the load

179. The stub length to be adjusted
a. To neutralize the susceptance of the load
b. Not to change the susceptance of the load
c. To increase the susceptance of the load
d. To decrease the susceptance of the load

180. In the single stub matching the location of the stub changes with
a. Load impedance
b. Source impedance
c. Characteristic impedance
d. Frequency

181. A stub with a short circuited load offers
a. Capacitive reactance
b. Inductive reactance
c. Pure resistance
d. Impedance

182. By connecting the stub at the load point
a. Matching cannot be obtained
b. Matching can be obtained
c. Matching can be obtained for a particular frequency
d. Matching can not be obtained for a particular frequency

183. In a double stub tuner, the spacing between the stubs is
a. λ
b. λ/4
c. λ/2
d. 2λ

184. The impedance seen beyond the stub is equal to
a. Load impedance
b. Source impedance
c. Characteristic impedance
d. Reciprocal of characteristic impedance

185. In a stub matching it is more convenient to solve the problem using
a. Admittance
b. Impedance
c. Resistance
d. Reactance

186. Stub is to be used to neutralize the
a. Resistance of the load
b. Impedance of the load
c. Susceptance of the load
d. Admittance of the load

187. A short circuited stub is ordinarily preferred to an open circuited stub because
a. It has lower loss of energy due to radiation
b. It has higher loss of energy due to radiation
c. It has complete loss of energy due to radiation
d. Its length is small.

188. A single stub matching is a
a. Narrow band system
b. Broad band system
c. Pass band system
d. Band reject system

189. A certain low loss line has = 400 ohms. For = 200 ohms, the SWR is
a.
b. 1/3
c. 2
d. 4

190. Two very long lossless cables of characteristic impedances of 36 ohms and 100 ohms respectively are to be joined for reflection less transmission. The of a matching transformer is

a. 36 ohms
b. 100 ohms
c. 60 ohms
d. 1/36 ohms

191. In a transmission line if the distance between two successive minima's is 5 meters. Then the operating frequency of the signal impressed on it is
a. 3 K Hz
b. 3 M Hz
c. 3 G Hz
d. 30 G Hz

192. If the phase constant on the line is 2π rad/m , the distance between two successive maxima is
a. 20 cm
b. 30 cm
c. 40 cm
d. 50 cm

193. Consider a 5m length transmission line is properly terminated with 50 ohms Load Then the input impedance at 3m from source end is
a. 25 ohms
b. 50 ohms
c. 75 ohms
d. 100 ohms

194. A transmission line operating at 1.6 G Hz has Zoc= ohms and
a.
b.
c.
d.

195. A loss less line has = 50 ohms. If it is connected to a load of = (50/(2+j2)) ohms. Then the normalized admittance is
a. (2+j2)
b. (2-j2)
c. 1/(2+j2)
d. 1/(2-j2)

196. If SWR = 1 then the reflection coefficient is
a. Zero
b. One
c. Two
d. Infinity

197. A transmission line has = 50 ohms, and = 100 ohms. Then is
a. 200 ohms
b. 75 ohms
c. 50 ohms
d. 25 ohms

198. For a quarter wave transformer βl is equal to
a. π/4
b. π/2
c. π
d. 2π