BSNL Senior Executive Sample Paper

Q1. What will be the change in bandwidth of the frequency modulation signal as the frequency of modulation tends to increase from 12 kHz to 24 kHz?
(a) Bandwidth remains unaffected
(b) 40 kHz
(c) 58 kHz
(d) 24 kHz

Q2. Modulation of the source signal with multiple frequency components, is called _____
(a) Frequenc
(b) Phase Mo
(c) Multitone
(d) Amplitud

Q3. Which o re-en
(a) It improv
(b) It is basic
(c) It increase n sign at hig
(d) It is used

Q4. The sate een two points is estab o noise ratio of 30 dB and _____. (Take log(90.90) =
(a) 20.3 dB
(b) 19.5 dB
(c) 18.7 dB
(d) 18 dB

Q5. For satel C-band are :
(a) 12 GHz and 9 GHz
(b) 6 GHz and 4 GHz
(c) 4 GHz and 6 GHz
(d) 12 GHz and 8GHz

Q6. By measuring the VSWR values in the main and auxiliary waveguide of a directional coupler, we can determine is–
(a) phase co-relation and efficiency
(b) frequency shift and phase variations
(c) attenuation and radiation efficiency
(d) directivity and coupling factor

Q7. A dual directional coupler is connected in a microwave reflectometer measurement setup. The reading of the power meter in the forward direction is 100 mW and in the reverse direction 4 mW. The VSWR is :
(a) 4
(b) 0.4
(c) 1.5
(d) 10

Q8. Which of the following statement is FALSE for refractive index of a Graded index fiber?
(a) Decreasing from core axis to core end
(b) Constant in the cladding
(c) Maximum
(d) Maximun

Q9. The ban
(a) 3 kHz to 3
(b) 3 MHz to
(c) 30 MHz t
(d) 30 THz to

Q10. The ref ding an op ctively. How much is aper
(a) 0.646
(b) 0.312
(c) 0.552
(d) 0.812

Q11. For a fe gth of λ which of the following will be the reflective region?
(a) 0.23λ
(b) 0.425λ
(c) 0.35λ
(d) 0.525λ

Q12. A satell t the ground station, when the satellite is overhead of the station is:
(a) Zero
(b) Maximum
(c) Infinity
(d) None of the above

Q13. For direct reception of TV signals from a communication satellite, the type of antenna required is:
(a) Horn
(b) Parabolic
(c) Chicken mesh
(d) Loop

Q14. MTI radar is based on:
(a) Einstein theory
(b) Faraday's laws of EM induction
(c) Doppler effect
(d) Edison effect

Q15. Which of the following is the measuring device used in satellite communication?
(a) Transponder
(b) Payload
(c) Apogee
(d) Perigee

Q16. Calcula g power of 5 watt and an
(a) 42
(b) 49
(c) 50
(d) 52

Q17. The noi e ar ival o ectrode of an amplifying d
(a) White no
(b) Flicker
(c) Shot nois
(d) Transit ti

Q18. A resist e R era noi r 10 m ov s u er cert i itions. If the resistor value ed, th e noise voltage nder sa itions ll b :
(a) 10 microv
(b) 20 microv
(c) 14.14 mic
(d) 5 microvo

Q19. Radio f
(a) Mixer stage
(b) IF stage
(c) Baseband recording system
(d) Preamplifier of radio receiver

Q20. A system has a receiver noise resistance of 50 Ohm. It is connected to an antenna with an input resistance of 50 Ohm. Calculate the noise figure of the system.
(a) 1
(b) 2
(c) 50
(d) 101