1. Which of the following schemes have the best error performance with the same energy per bit?

a. 16QAM

b. 16PSK

c. QPSK

2. Same Antenna is used for Tx and Rx. Radar range related to Antenna gain as

1. Directly prop. To G

2. Direc. Prop. To sq. root of G

3. Inversely prop to G

3. Thermal Noise in conductor related to B

1. B

2. 1/B

3. B2

4. Square root of B

4. A control system with feed back gain 0.1 and forward gain 10. What is the sensitivity of the system w.r.t the feed back system.

5. The value of 'k' for the system to be stable is. (6th degree Characteristic Eqn given)

6. Which of the following system is stable.

1. As2 + Bs +C

2. As2 – Bs +C

3. As4 + B s3 +Cs+D

4. -As2 – Bs -C

7. Linux OS based on which architecture

8. Comparison between Macro and Subroutine

1. Macro better that Sub Rtne with respect to storage time and execution time

2. Vice versa

3. Macro better that Sub Rtne with respect to execution time only

4. Vice versa

9. Which of the following is a privileged instruction?

1. MOV A B

2. INT 21

3. ADD A B

4. IN 08

10. Which of the following instruction is not converted to binary by an Assebly Language Program ?

1. TRAP

2. Interrupt

3. Privilige instruction

11. In which type of machine can multiple tasks be done

1. Virtual Machine

2. Sorry don't remember

12. Which of the following has the highest distortion?

1. A

2. B

3. AB

4. C

13. Which of the following distortions occur in Class B push pull amplifier?

1. Harmonic

2. Intermodulation

3. Phase

14. ?(s)/T(s) of a rotational system (J,B,k regular notaions)

15. Schmitt Trigger with 3V & 1V UTP and LTP respectively. A sinusoidal input with 10V peak is fed as the input. The output swings between

16. Op-amp circuit given. Identify the circuit (Ans: Peak detector)

17. 6 bit binary ladder with 101001 as input (0= 0V , 1 = 10V). Output voltage is ——

18. Doppler Radar of 1125 MHz. Frequency of received echo is 125 MHz. The conclusion is

1. Target also has a radar

2. Target moving away

3. Target approaching

19. Microprocessor cycles between

1. Fetch and Execution operations.

2. Fetch and Halt

20. Modulation index of an FM system with 2.5V, 500 Hz input and 5KHz deviation is

21. Routh's Criterion gives

1. Number of roots on the LHS of S plane

2. Number of roots on the RHS of S plane

22. For the system to be stable, the roots of the characteristic Equation must lie

1. Left side of the S plane

2. Right side of s plane

23. Impulse response h(t) of a system is

1. Inverse Laplace transform of Transfer Function

24. The output of a LTI system with Guassian process input is

1. Gaussian

2. Poisson

25. Spectral Density and Auto-Correlation are

1. Laplace Transform pair

2. Fourier Transform Pair.

26. A flex Klystron is a

27. Oscillator(1MHz) à Divider (/ 10^6) à Schmitt Trigger à Flip Flop à. Output is

1. Pulse Train of width 1 sec

2. Pulse Train of width 2 sec

3. Pulse Train of width 0.5 sec

Wipro Technical questions

1. Question on Ruth's criterion

2. Characteristic equation for stable state.

3. Common collector amplifier (current, voltage relations…).

4. FET trans conductance, Gm is directly proportional to…

5. At 3dB frequency line, gain reduces to…

6. Maximum distortion occurs in which amplifier?

7. Class B pushpull amplifier suffers from…

8. Barkhausen's criterion for sustained oscillations..

9. Low frequency response of RC coupled amplifier (characteristics)

10. Ideal operational trans conductance amplifier (i/p & o/p impedance relations)

11. Radiation resistance of folded dipole is ….ohms.

12. IC timer 555, low on pin4(reset), what happens?

13. Decimal to binary conversion…

14. Question on full adder circuit(no of i/p o/p digits)

15. ckt involving: oscillator -> divider -> schmitt trigger -> flip flop -> o/p= ? (-> represents followed by symbol)

16. a ckt: op amp ->diode and capacitor -> o/p; name the ckt?

17. Pblm on binary adder (6 bit)

18. Feedback factor is 0.1, forward gain of system is 10, sensitivity w.r.t f/b element?

19. Linux is implemented as?

20. Feedback control system characteristics?

21. Phased locked loop is used in ?

22. A problem on random variables…

23. Frequency response char of ideal comm chnl..

24. best error performance for same avg energy per bit (options 16QAM, 16ASK, 16PSK, QPSK)

25. Tx band width od SSB?

26. Nyquist interval..

27. r/n b/n spectral density &auto correlation fpor a periodic function.

28. Thermal noise power in a conductor is proportional to…

29. Numerical on modulation index…

30. Question on radar range..

31. Question on doppler radar…

32. Microwave signal follows earth curvature, phenomenon called as…

33. Flex klystron functions as…

34. Microwave junction matched at all points is called…'

35. Numerical on schmitt trigger ckt operation on a sine wave.

36. Question on assembly language (up) .

37. Assembly language (up).

38. Assembly language (up)/(uc).

39. Operating system architecture.

40. OS architecture..

41. Protocol to receive mails from server.

42. Question on ethernet involving distances(2500 mts).

43. Pc to hub distance in 10base T ethernet.

44. Ip-sec is an internet security mechanism for ?