1. At which block of the digital communication system is the message symbol converted into a digital form of binary sequence?
a. source encoder
b. channel encoder
c. modulator
d. source decoder

2. Which of these block elements does not feature in the block diagram of an offset QPSK transmitter
a. demultiplexer
b. bandpass filter
c. adder
d. bipolar NRZ level encoder

3. Which of these is not a characteristic of QASK
a. Quadrature phase is modulated
b. Quadrature amplitude is modulated
c. all signal points are placed on the circumference of the circle
d. this modulation is relatively complex than QPSK

4. Which of these modulation techniques is also called as Shaped QPSK?
a. MSK   b. QASK   c. BPSK   d. DEPSK

5. Which of these modulation techniques follow a non coherent detection method?
a. BPSK   b. DPSK   c. QPSK   d. M-ary ASK

6. Which of these is a characteristic of FDMA?
a. time synchronization is required
b. code word is required
c. power efficiency is reduced
d. guard bands are not required

7. Which of these parameters are not used to evaluate the performance of the DSS Spectrum System?
a. processing gain
b. probability error
c. directivity
d. jamming margin

8. Which of these is a type of cyclic code?
a. bose-chaudhari hocquengham code

b. hamming code
c. systematic code
d. hadamard code

9. In the baseband signaling schemes which of these has a higher error probability?
a. ASK b. PSK   c. FSK   d. DPSK

10. The gate present at the input of the Duobinary encoder is
a. exclusive OR   b. NOR   c. OR   d. NAND

11. Which of these ADCs is the fastest?
a. Flash comparator
b. Dual slope comparator
c. Successive approximation ADC
d. Servo tracking ADC

12. Which of these is an advantage of an active filter over a passive filter?
a. flexibility in gain and frequency adjustment
b. produces a higher bandwidth
c. requires a dual power supply
d. has a better approximate ideal response

13. Which of these is not an element block in the PLL block diagram?
a. VCO   b. Low pass filter   c. High pass filter   d. Phase comparator

14. The ideal output offset voltage range for a 741C opamp is?
a. +15V, -15V   b. + 15mV, -15mV   c. +13V   d. -13V

15. Which of these oscillators has a gain of A=29?
a. wein bridge   b. RC shift   c. quadrature

16. Which of these circuits have to satisfy the Nyquist frequency criteria?
a. peak detector   b. sample and hold   c. log amplifier   d. precision rectifier

17. Which of these circuits do not have a capacitor in the feedback?
a. practical integrator b. practical differentiator c. quadrature oscillator d. Log amplifier

18. What are the advantages of a schmitt trigger over a ZCD?

19. Why is the precision rectifier better than the normal rectifier?

20. What are the additional characteristics of the instrumentation amplifier over the conventional amplifier?

21. In ARM7 TDMI which of these modes is a privileged version of the user mode?
a. supervisor   b. System   c. Abort   d. IRQ

22. After reset, SP register is initialized to address_____.
a. 8H
b. 9H
c. 7H
d. 6H

23. What is the address range of SFR Register bank?
a. 00H-77H
 b. 40H-80H
 c.80H-7FH
d.80H-FFH

24. Which of these is not a flag in the PSW register?
a. carry   b. Zero   c. Auxiliary   d. Parity

25. The bit addressable RAM occupies which address range of the 8051 internal RAM?
a. 10-17
b. 18-1F
c. 20-2F
d. 30-7F

26. Which of these registers in 8051 is not bit addressable
a. PSW   b. SCON   c. PCON   d. TCON

27. Program memory in 8051 is
a. 64 kB external
b. 64 kB total external+internal
c. 64 kB internal
d. 64 kB external +4 kB internal

28. Which pin of port 3 is has an alternative function as write control signal for external data memory?
 a.P3.8

b.P3.3
c. P3.6
d.P3.1

29. Which of the following register in ARM7 is used to point to the location of currently executing instruction in a program?
a. R1
b. R5
c. R15
 d. R8

30. Which of the following processors belong to Reduced Instruction Set Computers (RISC) family?
a. ARM b.AVR c. MIPS d.All of the above

31. An instruction that is used to move data from an ARM Register to a Status Register (CPSR or SPSR) is called _____.
a. MRC b. MRS c. MSR d. MCS

32. Instruction used to Test equality of two 32-bit values in ARM7 is called _____.
 a. TEQ b. TST c. EOR d. None of the above

33. When a global variable may be modified by an exception handler, it should be declared as:
a. Constant b. Static c. Dynamic d. Volatile

34. Which of the following is not one of the source files of a linker to form an executable?
a. .obj b. .lef c. .so d. .lib

35. In a communication system which of the following steps is not included in the process of reception?
a. decoding
b. encoding
c. storage
d. interpretation

36. The acoustic channel is used for which of the following?
a. UHF communications
b. single-sideband communications
c. television communications

d. small distance voice communications

37. Which of the following types of noise has a great significance at high frequencies?
a. shot noise
b. random noise
c. impulse noise
d. transit-time noise

38. Which of the following is the most reliable measurement for comparing amplifier noise characteristics?
a. signal-to-noise ratio
b. noise factor
c. shot noise
d. thermal agitation noise

39. Leak-type bias is used in a plate-modulated class C amplifier
a. increase the bandwidth
b. prevent overmodulation
c. prevent excessive grid current
d. increase bandwidth

40. Independent side-band modulation (B8E) is normally used for
a. HF point-to-point radio-telephone
b. monaural broadcasting
c. TV broadcasting
d. stereo broadcasting

41. Which of the following cannot be used to remove the unwanted sideband in the SSB?
a. filter system
b. phase-shift method
c. third method
d. balanced modulator

42. Which of the following is not an advantage of FM over AM?
a. Better noise immunity is provided
b. lower bandwidth is required
c. The transmitted power is more useful
d. Less modulating power is required

43. The main disadvantage of the two-hole directional coupler is

a. low directional coupling
b. poor directivity
c. high SWR
d. narrow bandwidth

44. Helical antennas are often used for satellite tracking of VHF because of
a. troposcatter
b. superrefraction
c. the Faraday effect
d. ionosphere refraction

45. Which one of the following is not an omnidirectional antenna
a. Half-wave dipole
b. Log-periodic
c. Discone
d. Marconi

46. The Shannon-Hartley law
a. refers to distortion
b. refers to noise
c. defines bandwidth
d. describes signaling rates

47. To separate channels in an FDM receiver, it is necessary to use
a. AND gates
b. bandpass filter
c. differentiation
d. integration

48. The main disadvantage of CW Doppler radar is that
a. it does not give the target velocity
b. it does not give the target questions
c. a transponder is required at the target
d. it does not give the target position

49. Indicate which voltages are not found in the output of a normal monochrome receiver video detector.
a. Sync
b. Video
c. Sweep
d. Sound

50. The 3 major groups in the optical system are
a. the components, the data rate, the response time
b. the source, the link, the receiver
c. the transmitter, the cable, the receiver
d. the source, the link, the detector