DMRC Junior Engineer Electronics Question Paper 2012 Model Paper

1.The number of digits in octal system is
a.8
b.7
c.10
d. none

2..The number of digits in Hexadecimal system is
a.15
b.17
c.16
d. 8

3.The number of bits in a nibble is
a.16
b.5
c.4
d.8

4.The digit F in Hexadecimal system is equivalent to �� in decimal system
a.16
b.15
c.17
d. 8

5.Which of the following binary numbers is equivalent to decimal 10
a.1000
b.1100
c.1010
d.1001

6.The number FF in Hexadecimal system is equivalent to �� in decimal system
a.256
b.255
c.240
d.239

7.IC s are
a. analog
b. digital
c. both analog and digital
d. mostly analog

8.The rate of change of digital signals between High and Low Level is

a. very fast
b. fast
c. slow
d. very slow

9. Digital circuits mostly use
a. Diodes
b. Bipolar transistors
c. Diode and Bipolar transistors
d. Bipolar transistors and FETs

10.Logic pulser
a. generates short duration pulses
b. generate long duration pulses
c. generates long and short duration
d. none of above

11.What is the output state of an OR gate if the inputs are 0 and 1?
a.0
b.1
c.3
d.2

12.What is the output state of an AND gate if the inputs are 0 and 1?
a.0
b.1
c.3
d.2

13.A NOT gate has�
a. Two inputs and one output
b. One input and one output
c. One input and two outputs
d. none of above

14.An OR gate has�
a. Two inputs and one output
b. One input and one output
c. One input and two outputs
d. none of above

15.The output of a logic gate can be one of two _____?
a. Inputs
b. Gates
c.States

d. none

16. Logic states can only be ___ or 0.
a. 3
b. 2
c. 1
d. 0

17. The output of a ____ gate is only 1 when all of its inputs are 1
a. NOR
b. XOR
c. AND
d. NOT

18. A NAND gate is equivalent to an AND gate plus a �. gate put together.
a. NOR
b. NOT
c. XOR
d. none

19. Half adder circuit is _____?
a. Half of an AND gate
b. A circuit to add two bits together
c. Half of a NAND gate
d. none of above

20. Numbers are stored and transmitted inside a computer in
a. binary form
b. ASCII code form
c. decimal form
d. alphanumeric form

21. The decimal number 127 may be represented by
a. 1111 1111B
b. 1000 0000B
c. EEH
d. 0111 1111

22.. A byte corresponds to
a. 4 bits
b. 8 bits
c. 16 bits
d. 32 bits

23. A gigabyte represents
a. 1 billion bytes

b. 1000 kilobytes
c. 230 bytes
d. 1024 bytes

24. A megabyte represents
a. 1 million bytes
b. 1000 kilobytes
c. 220 bytes
d. 1024 bytes

25.. A Kb corresponds to
a. 1024 bits
b. 1000 bytes
c.210 bytes
d. 210 bits

26.A parity bit is
a. used to indicate uppercase letters
b. used to detect errors
c. is the first bit in a byte
d. is the last bit in a byte

27. Which of these devices are two state.
a. lamp
b. punched card
c. magnetic tape
d. all the above

The output impedance of of a logic pulser is
a. low
b. high
c. may be low or high
d. none of above

28.The number of LED display indicators in logic probe are
a.1
b.2
c.1 or 2
d.4

29.In hexadecimal number system,A is equal to decimal number
a.10
b.11
c.17
d.18

30.Hexadecimal number F is equal to octal number
a.15
b.16
c.17
d.18

31.Hexadecimal number E is equal to binary number
a.1110
b.1101
c.1001
d.1111

32.Binary number 1101 is equal to octal number
a.15
b.16
c.17
d.14

33.Octal number 12 is equal to decimal number
a.8
b.11
c.9
d. none

34.Decimal number 10 is equal to binary number
a.1110
b.1000
c.1001
d.1010

35.Binary number 110011011001 is equal to decimal number
a.3289
b.2289
c.1289
d.289

36.1111+11111=
a.101111
b.101110
c.111111
d.011111

37.Binary multiplication 1*0=
a.1
b.0
c.10

d.11

38.11001₂ -10001₂=
a.10000
b.01000
c.00100
d.00001

39.1011₂*101₂=
a.55
b.45
c.35
d.25

40.111011₂*10001₂=
a.111101101
b.111101100
c.111110
d.1100110

41.4 bits is equal to
a. 1 nibble
b.1 byte
c. 2 byte
d. none of above

42. which is non-volatile memory
a. RAM
b. ROM
c. both
d. none

43. The contents of these chips are lost when the computer is switched off?
a. ROM chips
b. RAM chips
c. DRAM chips
d. none of above

44.What are responsible for storing permanent data and instructions.?
a. RAM chips
b. ROM chips
c. DRAM chips
d. none of above

45. Which parts of the computer perform arithmetic calculations?
a. ALU
b. Registers
c. Logic bus
d. none of above