

## R Systems Placement Test Questions

### Section I(Technical)

1. There was a figure of JK flip flop in which  $\sim q$  is connected to J input and  $K=1$ . If clock signal is successively applied 6 times what is output sequence ( $q=?$ )  
d) 010101
2. The relationship b/w Gain & Bandwidth?  
a) Independent of each other  
b) Gain decreases as bandwidth decreases  
c) Gain increases as bandwidth increases till some extent after which stability decreases
3. In "ON CHIP decoding memory can be decoded to  
a)  $2^n$  b)  $2^n + 1$  c)  $2^n - 1$  d) some other choice    Ans: a
4. Half of address 0Xffffff is  
a) 77777777 b) 80000000 c) 7FFFFFFF d) some other choice
5. For a 4 bit succe D/A with 16v o/p the resolution is  
a)10v b)1v c)1.6v d)16v    Ans : b
6. A 20kva transformer at full load conditions have the coreless & cu loss are 250w&300w,To get max efficiency what will be the total loss in tr in w  
a) 550 b) 500 c) 600 d) Data insufficient    Ans : b
7. There was a circuit consisting of AC voltage source and one inductance. Inductance value=0.2mH AC voltage =150 sin (1000t).what is the current flowing in the circuit?  
a) b) c) d)
8. Power gain of an amplifier having i/p gain of 20W and output gain of 20mW is

## R Systems Placement Test Questions

a) 60 b) 25 c) 10 d) 0

9. There was a RC circuit given with AC voltage source. Expression for capacitance was asked for charging condition. Choices were somewhat like this:

a) some value multiplied by  $\exp(-t/T)$

ans "c  $i = (V_s/R)\exp(-t/T)$

10. SCR s are connected in series to get

a) high current rating b) voltage regulation c) high v rating d) some other

Ans: c

11. Which one of the following is used for high speed power application?

a) BJT b) MOSFET c) IGBT d) TRIAC

12. One question related with SCR timing dia

13. SCR is used for

a) To achieve optimum (or maximum not sure)  $dv/dt$

b) For high current ratings

c) To achieve high voltage

d) Some other choice

14. State in which o/p collector current of transistor remains constant in spite of increase in base current is

a) Q point b) Saturation c) Cut off

15. what is the resonant frequency of parrel RLC circuit of  $R = 4.7 \text{ kohm}$   $L = 2 \text{ micro Henry}$  and  $c = 30 \text{ pf}$ .

a). 20.5 MHz

b). 2.65 KHz

c). 20.5 KHz

d). none

## R Systems Placement Test Questions

16. for the parallel circuit (one figure is given)  $I_s = 10\text{mA}$ .  $R_1 = 2R$ ,  $R_2 = 3R$ ,  $R_3 = 4R$ .  $R$  is arbitrary

- a).  $3.076\text{mA}$
- b).  $3.76\text{mA}$

17 . Two ques on control sys like the sys will be stable when the roots are  
a) real & +ve b) real & -ve c) d)

18. The ques on Niquist plot

19. One ques on root locus

20. One more question related with ADC like voltage is 8 volts. frequency 2 Mega hz. what is the conversion rate

21. Question related with serial in parallel out shift register What is output sequence?

Ans 1010

21. Given one RLC circuit in which values of  $R$ ,  $L$  and  $C$  were given. What is the value of frequency  $f$ ?

22. #define A 10+10

main ()

{

int a;

a=A\*A;

printf ("%d", a);

}

a) 100 b) 200 c) 120 d) 400

ans : c

23.. main(){

int n=0;

## R Systems Placement Test Questions

```
while(n>32767)
pf("%d,n);
n++
}
```

ans ; indefinite loop here the loop will continue again & again ie after 32767 the go to -32768

24.. if (fun ())

```
{
X++;
}
```

X gets incremented if and only if

- a) fun () returns 0
- b) fun () return 1
- c) fun () return -1
- d) return a value other than 0    ans ; d

25.. In dynamic memory

- a) Power dissipation is less than that of static memory
- b) Clock is needed
- c) Refreshing is required
- d) All the above

26. Short, int and long integers have how many bytes?

- a) 2,2,4      b) Machine dependant      c) 2,4,8    d) Some other choice    ans : b

27. A (n) is """"filter combination of

- a) Passive      b) Active      c) AMPLIFIER      d) BOOSTER

28. according to ohms law the current density is proportional to

- a) current    b)  $di/ds$     c) applied emf    d)

29. Two more question on gravity ie body is projected then find the time of fall and some physics ques

## R Systems Placement Test Questions

30. Structure comparison is done

- a). yes
- b) no
- c) compiler dependent
- d)

31. The system in which communication occurs in both ways but not simultaneously in both ways is

- a) Half simplex   b) Simplex   c) Half duplex   d) duplex

32. main ()

```
{  
int a=5, b=6;  
int i=0;  
i=a>b? a:b;  
printf ("%d", i);  
}
```

- a) 0      b) 1      c) 6      d) 5

33. int fun (char c)

```
{  
int i;  
static int y ;}
```

- a) c, i are stored in stack and y stored in data segment
- b) c stored in stack and i, y are stored in data segment
- c) c is stored in text segment, y in data and i in stack

34. how would you insert pre-written code into a current program?

- a) #read
- b) #get
- c) #include
- d) #pre ans: c

## R Systems Placement Test Questions

35. structure may contain

- a) any other structure
- b) any other structure except themselves
- c) any other structure except themselves and pointed to themselves
- d) none of the above

36. One ques from pointer declaration

Section II (Aptitude)

37. If  $a > 4$ ,  $b < -1$  then which of the following is true

- a)  $2a + b < 0$
- b)  $4a < 3b$
- c)  $a > 4b$
- d) some oth

38. In a class out of 150 studs participated in various games foot ball ,basket ball, cricket are 120, 130,135 respecly and 5 stud are not playing any one of then then find the least no of studs which are are playing all the games

- a) 110
  - b) 100
  - c) 96
- Ans a

39.. 20 men can do a work in  $c/2$  days & 30 women can do the same work in  $c/3$  days then how many days will take to complete the work when 20 men & 30 wmen work together

- a)  $5c/6$
- b)  $c/6$
- c)  $6c/5$

40. find the lateral surface of a cone with diameter of base 12feet . and the latent height is 24feet

- a) 1320square f.
- b) 260 square f.
- c) 96 square f.
- d) none

ans : c

41. Ann is shorter than Jill and Jill is taller than Tom. Which of the following inferences are true

- a) Ann is taller than Tom
  - b) c)
  - d) Data insufficient
- ans : d

## R Systems Placement Test Questions

42. Sum of squares of two numbers is 404 and sum of two numbers is 22. Then product of two Numbers?

a) 20   b) 40   c) d) (Answer is 40. Two numbers are 20 and 2)

43.  $(10 \mid 7)$  would produce

a). 17

b). 3

c). 11

d). 15