

## 2011 Mphasis technical interview questions

1. How is linked list implemented

Ans. By referential structures

2. What is meant by functional dependency?

3. What is a semaphore

Ans. A method synchronization of multiple processes

4. What is the precedence order from high to low ,of the symbols ( ) ++ /

Ans.( ) , ++, /

5. Preorder of  $A*(B+C)/D-G$

Ans.\*+ABC/-DG

6. B-tree (failure nodes at same level)

7. Dense index (index record appears for every search -key in file)

8. What is the efficiency of merge sort

Ans.  $O(n \log n)$

9. program on swapping ( 10,5 )was given (candidate cannot recollect)

10. Which of the following sorting algorithm has average sorting behavior --  
Bubble sort, merge sort, heap sort, exchange sor

Ans. Heap sort

11. In binary search tree which traversal is used for getting ascending order values--  
-Inorder ,post order,preorder

Ans. Inorder

12. What are device drivers used for

Ans. To provide software for enabling the hardware

13. Irrelevant to unix command ( getty)

14. What is fork command in unix

Ans. System call used to create process

15. What is make command in Unix

Ans. Used for creation of more than one file

16. In unix .profile contains

Ans. Start up program

17. In unix echo is used for ( answer C)?

18. M men agree to purchase a gift for Rs. D. If three men drop out how much more will each have to contribute towards the purchase of the gift/

A.  $D/(M-3)$

B.  $MD/3$

C.  $M/(D-3)$

D.  $3D/(M^2-3M)$

Ans. D

19. A company contracts to paint 3 houses. Mr.Brown can paint a house in 6 days while Mr.Black would take 8 days and Mr.Blue 12 days. After 8 days Mr.Brown goes on vacation and Mr. Black begins to work for a period of 6 days. How many days will it take Mr.Blue to complete the contract?

A. 7

B. 8

C. 11

D. 12

Ans.C

20. 2 hours after a freight train leaves Delhi a passenger train leaves the same station traveling in the same direction at an average speed of 16 km/hr. After traveling 4 hrs the passenger train overtakes the freight train. The average speed of the freight train was?

A. 30

B. 40

C. 58

D. 60

Ans. B

21. If  $9x-3y=12$  and  $3x-5y=7$  then  $6x-2y = ?$

A. -5

B. 4

C. 2

D. 8

Ans. D

22. The office staff of XYZ corporation presently consists of three bookkeepers-- A, B, C and 5 secretaries D, E, F, G, H. The management is planning to open a new office in another city using 2 bookkeepers and 3 secretaries of the present staff . To do so they plan to separate certain individuals who don't function well together. The following guidelines were established to set up the new office

I. Bookkeepers A and C are constantly finding fault with one another and should not be sent together to the new office as a team

II. C and E function well alone but not as a team , they should be seperated

III. D and G have not been on speaking terms and shouldn't go together

IV Since D and F have been competing for promotion they shouldn't be a team

23. If A is to be moved as one of the bookeepers,which of the following cannot be a possible working unit.

A.ABDEH

B.ABDGH

C.ABEFH

D.ABEGH

Ans.B

24. If C and F are moved to the new office, how many combinations are possible

A.1

B.2

C.3

D.4

Ans.A

25. If C is sent to the new office,which member of the staff cannot go with C

A.B

B.D

C.F

D.G

Ans.B

26. Under the guidelines developed, which of the following must go to the new office

A.B

B.D

C.E

D.G

Ans.A

27. If D goes to the new office, which of the following is/are true

I.C cannot go

II.A cannot go

III.H must also go

A.I only

B.II only

C.I and II only

D.I and III only

Ans.D

28. After months of talent searching for an administrative assistant to the president of the college the field of applicants has been narrowed down to 5--A, B, C, D, E .It was announced that the finalist would be chosen after a series of all-day group personal interviews were held.The examining committee agreed upon the following procedure

I.The interviews will be held once a week

II.3 candidates will appear at any all-day interview session

III.Each candidate will appear at least once

IV.If it becomes necessary to call applicants for additional interviews, no more 1 such applicant should be asked to appear the next week

V.Because of a detail in the written applications,it was agreed that whenever candidate B appears, A should also be present.

VI.Because of travel difficulties it was agreed that C will appear for only 1 interview.

29. At the first interview the following candidates appear A,B,D.Which of the following combinations can be called for the interview to be held next week.

A.BCD

B.CDE

C.ABE

D.ABC

Ans.B

30. Which of the following is a possible sequence of combinations for interviews in 2 successive weeks

A.ABC;BDE

B.ABD;ABE

C.ADE;ABC

D.BDE;ACD

Ans.C

31. If A ,B and D appear for the interview and D is called for additional interview the following week,which 2 candidates may be asked to appear with D ?

I. A

II B

III.C

IV.E

A.I and II

B.I and III only

C.II and III only

D.III and IV only

Ans.D



32. Which of the following correctly state's the procedure followed by the search committee

I.After the second interview all applicants have appeared at least once

II.The committee sees each applicant a second time

III.If a third session,it is possible for all applicants to appear at least twice

A.I only

B.II only

C.III only

D.Both I and II

Ans.A

33. A certain city is served by subway lines A,B and C and numbers 1 2 and 3  
When it snows , morning service on B is delayed When it rains or snows , service on A, 2 and 3 are delayed both in the morning and afternoon When temp. falls below 30 degrees farenheit afternoon service is cancelled in either the A line or the 3 line, but not both. When the temperature rises over 90 degrees farenheit, the afternoon service is cancelled in either the line C or the 3 line but not both. When the service on the A line is delayed or cancelled, service on the C line which connects the A line, is delayed. When service on the 3 line is cancelled, service on the B line which connects the 3 line is delayed.

34. On Jan 10th, with the temperature at 15 degree farenheit, it snows all day. On how many lines will service be

affected, including both morning and afternoon.

(A) 2

(B) 3

(C) 4

(D) 5

Ans. D

35. On Aug 15th with the temperature at 97 degrees Fahrenheit it begins to rain at 1 PM. What is the minimum number

of lines on which service will be affected?

(A) 2

(B) 3

(C) 4

(D) 5

Ans. C