

**IBM Whole Test paper**

1. Arrange the fractions  $\frac{5}{8}$ ,  $\frac{7}{12}$ ,  $\frac{13}{16}$ ,  $\frac{16}{29}$  and  $\frac{3}{4}$  in ascending order of magnitude.

Ans- $\frac{16}{29} < \frac{7}{12} < \frac{5}{8} < \frac{3}{4} < \frac{13}{16}$

2. Identify the missing number in the series.

54, 49, ?, 39, 34

A.47 C.46

B. 44 D.48

Ans-B

3. Identify the missing number in the series.

5, 6, 7, 8, 10, 11, 14, ?, ?

A.19 C. 17

B. 15 D.16 E. 21

Ans-B,A

4. Identify the missing number in the series.

48, 46, 42, 38, ?

A.32 C. 30

B. 33 D.34 E. 35

Ans-C

5. Identify the next letter in the series.

T, V, X, Z, ?

A.Y B. K

C. B D.A E. W

6. If a and b are odd numbers, then which of the following is even ?

A. a + b B. a + b + 1

C. ab D. ab + 2 E. None of these

Ans-A

7. The letters A, B, C, D, E, F and G, not necessarily in that order, stand for seven consecutive integers from 1 to 10.

D is 3 less than A

B is the middle term

F is as much less than B as C is greater than D

G is greater than F

1. The fifth integer is

(a) A (c) D

(b) C (d) E (e) F

Ans-(b)

2. A is as much greater than F as which integer is less than G

(a) A (b) B

(c) C (d) D (e) E

Ans-(d)

3. If  $A = 7$ , the sum of E and G is

- (a) 8 (c) 12  
(b) 10 (d) 14 (e) 16

Ans-(b)

8. If the value of  $x$  lies between 0 & 1 which of the following is the largest?

- A.  $x$  C.  $-x$   
B.  $x^2$  D.  $1/x$

Ans-D

9. Complete the series.

3, 8, --, 24, --, 48, 63

Ans-15,35

10. Complete the series

-972 324 -108 36 -12 ...

- A. -3 C. -4  
B. 3 D. 4

Ans-D

11. Complete the series

123 135 148 160 173 ...

- A. 183 C. 192  
B. 185 D. 187

Ans-B

12. If three numbers are added in pairs, the sums equal 10, 19 and 21. Find the numbers

Ans-6,4 &15

13. Find the least value of  $3x + 4y$  if  $x^2y^3 = 6$ .

Ans-10

14. A computer printer produces 176400 lines in a given day. If the printer is in operation for 7 hrs during the day how many lines did it print per minute?

- A. 480 C. 410  
B. 400 D. 420

Ans-D

15. If  $3*2=46$   $2*5=104$   $4*3=68$  then  $4*7=?$

- A.148 B.94  
C. 814 D.28

Ans-A

16. You have plastic chips in your hand which are red on top and blue on the bottom. If you dropped 8 plastic chips, how many would probably land with the red side up?

- A. 2 B. 4  
C. 5 D.6

Ans-B

17. A garrison of 3300 men has provisions for 32 days, when given at a rate of 850 grams per head. At the end of 7 days a reinforcement arrives and it was found that now the provisions will last 8 days less, when given at

the rate of 825 grams per head. How, many more men can it feed?

Ans-1700 men

18. Shyam's car gives an average of 20 km per litre, then the difference in the cost of travel per kilometre between the two cars is

A. Rs 4.3 B. Rs 3.5

C. Rs 2.5 D. cannot be determined

Ans-D

19. 5 mangoes and 4 oranges cost as much as 3 mangoes and 7 oranges. What is the ratio of cost of one mango to the cost of one orange?

A. 4 : 3 B. 1 : 3

C. 3 : 2 D. 5 :

Ans-C

20. A train running at 72 kms per hour crosses a coconut tree standing by the side of the track in 7 seconds. The length of the train is:

A. 104 metres B. 140 metres

C. 504 metres D. 540 metres

Ans-B

21. The clinic of a Doctor faces the West. From the backside of his clinic, he walks straight 100 metres then turn to the left and walks 100 metres again. Finally, he turns towards right and stops after walking 50 metres. Now in which direction is Doctor from the starting point?

A. South-West B. North-East

C. South-East D. North-West

Ans-B

22. If 'P + Q' means 'P is the brother of Q'; 'P × Q' means 'P is the father of Q', 'P ÷ Q' means 'P is the mother of Q'; which of the following would mean 'R is the son of M'?

A.  $M \times S \times R$  B.  $M + R \times S$

C.  $M \div R \times S$  D.  $M \times S \div R$

Ans-C

23. Apartments in the Riverdale Manor cost less than apartments in The Gaslight Commons. Apartments in the Livingston Gate cost more than apartments in the The Gaslight Commons. Of the three apartment buildings, the Livingston Gate costs the most. If the first two statements are true, the third statement is

A. True

B. False

C. Uncertain

Ans-A

24. Find the wrong number in the following series:

1, 2, 4, 7, 13, 24, 54, 81

A. 13 B. 24

C. 54 D. 81

Ans-D

25. The sixth term of a HP is  $1/61$  and the 10th term is  $1/105$ . The first term of the H.P. is

A.  $1/39$  B.  $1/28$

C.  $\frac{1}{17}$  D.  $\frac{1}{6}$

Ans-D

26. The set of all integers  $x$  such that  $|x - 3| < 2$  is equal to

A. {1, 2, 3, 4, 5} B. {1, 2, 3, 4}

C. {2, 3, 4} D. {-4, -3, -2}

Ans-C

27. A man is standing on a railway bridge which is 180 m long. He finds that a train crosses the bridge in 20 seconds but himself in 8 seconds. Find the length of the train and its speed?

Ans-120 m, 54 km

28. Two trains 100 metres and 120 metres long are running in the same direction with speeds of 72 km/hr, In how much time will the first train cross the second?

A. 44 sec C. 120 sec

B. 30 sec D. 50 sec

Ans-A

29. In a game of 80 points; A can give B 5 points and C 15 points. Then how many points B can give C in a game of 60 ?

A. 5 points C. 7 pts

B. 6 points D. 8 points

Ans-D

30. Find the missing figures :

(i) ?% of 25 = 20125 Ans-8.5

(ii) 9% of ? = 63 Ans-70

(iii) 0.25% of ? = 0.04 Ans-16

31. Sixty five percent of a number is 21 less than four fifth of that number. What is the number ?

Ans-140

32. Find the total number of prime factors in the expression  $(4)^{11} \times (7)^5 \times (11)^2$ .

Ans-29

33. A number is as much greater than 36 as is less than 86. Find the number

Ans-61

34.  $\frac{4}{15}$  of  $\frac{5}{7}$  of a number is greater than  $\frac{4}{9}$  of  $\frac{2}{5}$  of the same number by 8. What is half of that number?

A. 310 C. 320

B. 315 D. 325

Ans-B

35. A dog takes 4 leaps for every 5 leaps of a hare but 3 leaps of a dog are equal to 4 leaps of the hare. Compare their speeds.

A. 15:12 C. 16:15

B. 14:17 D. 17:14

Ans-C

36. Rajeev can cover a certain distance in 1 hr. 24 min. by covering two-third of the distance at 4 kmph and the rest at 5 kmph. Find the total distance.

A. 6 C. 7

B. 4 D. 8

Ans-A

37. A is twice as good a workman as B and together they finish a piece in 18 days. In how many days will A alone finish the work?

A. 29 days C. 26 days

B. 27 days D. 25 days

Ans-B

38. If two pipes function simultaneously, the reservoir will be filled in 12 hours. One pipe fills the reservoir 10 hours faster than the other. How many hours does it take the second pipe to fill the reservoir?

A. 20 hours C. 40 hours

B. 30 hours D. 35 hours

Ans-B

39. Find out the wrong number in the given sequence of numbers.

1, 2, 6, 15, 31, 56, 91

A. 31 B. 91

C. 56 D. 15

Ans-B

40. 39 persons can repair a road in 12 days, working 5 hours a day. In how many days will 30 persons, working 6 hours a day, complete the work?

A. 10 B. 13

C. 14 D. 15

Ans-B

Technical questions

1. Write a program to delete an element from an array?

2. Can the size of an array be declared at runtime? Explain

3. Write a program using an array that computes the sum and the average of nth input values from the keyboard and prints the calculated sum and average.

4. Write a program for n lines

1 2 3 4 5

16 17 18 19 6

15 24 25 30 7

14 23 22 21 8

13 12 11 10 9

5. How to write a C program to find the power of 2 in a normal way and in single step?

6. Write a Program to convert decimal to binary no.

7. What is wrong with this code?

```
#include <stdio.h>
#define NAME __FILE__
main()
{
FILE *fopen(),*fp;
int c;
printf("The program itself is displayed like this: ");
fp = fopen ("NAME", "r");
c = getc (fp);
while (c != EOF)
{
putchar (c);
c = getc (fp);
}
fclose(fp);
}
```

8. assign a=56; how to separate that number (ie:5,6) and multiply (ie:5\*6) using bitwise operator?

9. Which DOS command will format a floppy disk and transfer the system files

- A. SYS C: A:
- B. SYS A:
- C. FORMAT A: /S
- D. FORMAT A: /T
- E. None of the above

Ans-C

10. How can I access a FAT32 partition?

11. What type of group is not available in a domain that is running at the mixed-mode functional level?

Ans- Universal group

12. List the Coffman's conditions that lead to a deadlock

13. What are the typical elements of a process image?

14. Your default unmask is 002. What does this mean?

- A. Any file you create will have the permissions set as owner and group having read and write permissions; others as read only.
- B. Any file you create will have the permissions set as owner and group having read, write and execute permissions; others as read and execute.
- C. Any directory you create will have the permissions set as owner and group having read, write and execute permissions; others as read and write permissions.
- D. Any directory you create will have the permissions set as owner and group having read and write permissions; others as read only.

Ans-A

15. What is a binary semaphore? What is its use?

16. Can SharePoint compare two document versions?

17. What are the sub-components of I/O manager in Windows NT?

18. What level of security does Windows NT meets?

Ans-C2 level security

19. Identify the class name for the following code: ABC123 course();

- A. ABC123 C. course()
- B. course D. All of the above.

Ans-A

20. The keyword "inverse" is used in which of the following?

- A. Class C. Relationship
- B. Attribute D. All of the above.

Ans-C

21. Which of the following is an ordered collection of elements of the same type?

- A. Set B. Bag
- C. List D. Dictionary

Ans-C

22. ODBC core SQL grammar contains which of the following?:

- A. INSERT, UPDATE, DELETE only
- B. Stored procedures only
- C. Full SELECT (includes subqueries) only
- D. Both 1 and 3 above are contained in the ODBC core SQL.

Ans-D

23. What will be the output of the program?

- A. 1 2 3 B. 1 2 3 4
- C. 2 3 4 D. 1

Ans-B

24. Point out the error in the program

- A. Error: Declaration syntax B. Error: Expression syntax
- C. Error: LValue required D. Error: Rvalue required

Ans-C

25. When would a structure variable get destroyed?

- A. When no reference refers to it, it will get garbage collected.
- B. Depends upon whether it is created using new or without using new.
- C. When it goes out of scope.
- D. Depends upon the Project Settings made in Visual Studio.NET.
- E. Depends upon whether we free it's memory using free() or delete().

Ans-c

26. What do the following declaration signify?

char \*arr[10];

- A. arr is a array of 10 character pointers.
- B. arr is a array of function pointer.
- C. arr is a array of characters.

D. arr is a pointer to array of characters.

Ans-A

27. What do the following declaration signify?

```
int (*pf)();
```

- A. pf is a pointer to function.
- B. pf is a function pointer.
- C. pf is a pointer to a function which return int
- D. pf is a function of pointer variable.

Ans-C

28. What will be the output of the program?

- A. 4, 4, 8   B. 2, 4, 4
- C. 4, 4, 2   D. 2, 4, 8

Ans-B

29. In the following code what is 'P'?

```
typedef char *charp;
```

```
const charp P;
```

- A. P is a constant   B. P is a character constant
- C. P is character type   D. None of above

Ans-A

30. What will be the output of the C#.NET code snippet given below?

```
byte b1 = 0xF7;
```

```
byte b2 = 0xAB;
```

```
byte temp;
```

```
temp = (byte)(b1 & b2);
```

```
Console.Write (temp + " ");
```

```
temp = (byte)(b1^b2);
```

```
Console.WriteLine(temp);
```

- A. 163 92   C. 192 63
- B. 92 163   D. 0 1

Ans-A

31. In the following pgm add a stmt in the function fun such that the address of 'a' gets stored in 'j'

```
main(){
```

```
  int * j;
```

```
  void fun(int **);
```

```
  fun(&j);
```

```
}
```

```
void fun(int **k) {
```

```
  int a =0;
```

```
  /* add a stmt here*/
```

```
}
```



32. Draw the B-tree of order 3 created by inserting the following data arriving in sequence - 92 24 6 7 11 8 22 4 5 16 19 20 78

33. Convert the given graph with weighted edges to minimal spanning tree.

34. Convert the expression  $((A + B) * C - (D - E) ^ (F + G))$  to equivalent Prefix and Postfix notations.

35. What are the methods available in storing sequential files?

36. Suppose a Generic class called SortObjects is to be made capable of sorting objects of any type (Integer, Single, Byte etc.). Which of the following programming constructs should be used to implement the comparison function?

- A. Namespace B. Interface
- C. Encapsulation D. Delegate E. Attribute

Ans-D

37. In tree construction which is the suitable efficient data structure?

38. If an XML document does not have a DTD, then by definition it is:

- A. not-type-valid. C. an HTML document.
- B. type-valid. D. None of the above is correct

Ans-A

39. Predict the output or error(s) for the following:

```
class Sample
{
public:
    int *ptr;
    Sample(int i)
    {
        ptr = new int(i);
    }
    ~Sample()
    {
        delete ptr;
    }
    void PrintVal()
    {
        cout << "The value is " << *ptr;
    }
};
void SomeFunc(Sample x)
{
```

```
cout « "Say i am in someFunc " « endl;  
}  
int main()  
{  
Sample s1= 10;  
SomeFunc(s1);  
s1.PrintVal();  
}
```

40. How can a ':' operator be used as unary operator?

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