

IBS Software Services Aptitude Paper

Q1. Each side of a rectangle is increased by 100%. By what percentage does the area increase?

ANS: 300%

Q2. City A's population is 68000, decreasing at a rate of 80 people per year. City B having population 42000 is increasing at a rate of 120 people per year. In how many years both the cities will have same population?

ANS: 130 years.

Q3. Perimeter of the back wheel = 9 feet, front wheel = 7 feet on a certain distance, the front wheel gets 10 revolutions more than the back wheel. What is the distance?

ANS: 315 feet.

Q4. 20% of a 6 litre solution and 60% of 4 litre solution are mixed. What is the percentage of the mixture of solution?

ANS: 36%

Q5. Two cars are 15 kms apart. One is turning at a speed of 50kmph and the other at 40kmph. How much time will it take for the two cars to meet?

ANS: $3/2$ hours

Q6. Perimeter of front wheel = 30, back wheel = 20. If front wheel revolves 240 times. How many revolutions will the back wheel take?

ANS: 360 times

Q7. If the total distance of a journey is 120 km. If one goes by 60 kmph and comes back at 40 kmph, what is the average speed during the journey?

ANS: 48 kmph

Q8. If $A/B = 3/5$, then $15A = ?$

ANS: 9 B

Q9. There are two circles, one circle is inscribed and another circle is circumscribed over a square. What is the ratio of area of inner to outer circle?

ANS: 1:2

Q10. What is the selling price of a car? If the cost of the car is Rs.60 and a profit of 10% over selling price is earned.

ANS: Rs 66/-

Q11. To 15 litres of water containing 20% alcohol, we add 5 litres of pure water. What is % alcohol?

ANS: 15%

Q12. A school has 30% students from Maharashtra. Out of these 20% are Bombay students. Find the total percentage of Bombay?

ANS: 6%

Q13. An equilateral triangle of sides 3 inch each is given. How many equilateral triangles of side 1 inch can be formed from it?

ANS: 9

Q14. If PQRST is a parallelogram, what is the ratio of triangle PQS & parallelogram PQRST.

ANS: 1:2

Q15. A worker is paid Rs.20/- for a full day work. He works $1\frac{1}{3}, 2\frac{2}{3}, \frac{1}{8}, \frac{3}{4}$ days in a week. What is the total amount paid for that worker?

ANS: 57.50

Q16. The price of a product is reduced by 30%. By what percentage should it be increased to make it 100%?

ANS: 42.857%

Q17. There are two candles of equal lengths and of different thickness. The thicker one lasts of six hours. The thinner 2 hours less than the thicker one. Ramesh lights the two candles at the same time. When he went to bed he saw the thicker one is twice the length of the thinner one. How long ago did Ramesh light the two candles?

ANS: 3 hours

Q18. There are 6 red shoes & 4 green shoes. If two of red shoes are drawn, what is the probability of getting red shoes?

ANS: $\frac{6c2}{10c2}$

Q19. $\frac{1}{3}$ of girls, $\frac{1}{2}$ of boys go to canteen .What factor and total number of classmates go to canteen?

ANS: Cannot be determined.

Q20. The cost of an item is Rs 12.60. If the profit is 10% over selling price, what is the selling price?

ANS: Rs 13.86/-

Q21. There is a square of side 6cm. A circle is inscribed inside the square. Find the ratio of the area of circle to square.

ANS: $\frac{11}{14}$

Q22. According to ANSI specifications which is the correct way of declaring main() when it receives command line arguments?

- a) `main(int argc, char *argv[])`
- b) `main(argc,argv) int argc; char *argv[];`
- c) `main() {int argc; char *argv[]; }`
- d) None of the above

Q23. What is the output of the program?

```
void main()
{
    char s[]="oracle is the best";
    char t[40];
    char *ss,*tt;
    while(*tt++=*ss++);
    printf("%s,t");
    getch();
}
```

}

- A. Oracle is the best
- B. Core dump
- C. Error Message
- D. Goes into infinite loop

ANS: B. Core dump (Garbage value)

Q24. What is the output of the program?

```
#include
#include
void main()
{
    int i=1*4/3-27%3^2+100*0.5-(4>3?1:2);
    clrscr();
    printf("%d,i);
    getch();
}
```

- A. 49
- B. compile error
- C. 51
- D. 48

ANS: B

Q25. What is the output of the following program?

```
#include
void main()
{
    char buffer[10]={Genesis};
    printf("%d,&buffer[4]-(buffer));
}
```

- A. 3
- B. 4
- C. 0
- D. illegal pointer subtraction

Q26. What is the value of expression?

$1+2/3*4+1$

- A. 2
- B. 3
- C. 4
- D. 4.666666
- E. 5

Q27. What is the output of the program?

```
void main()
{
    int j[10]={9,7,5,3,1,2,4,6,9};
    int i=1;
    clrscr();
    for(;i<9;i++)
        printf("%d ,--j[i++]");
    getch();
}
```

- A. 6,2,1,5
- B. 6,2,1,5,7
- C. Error Message
- D. core dump

ANS: A. 6,2,1,5

Q28. What is the output of the program?

```

#include
#include
void main()
{
char *st1[3]= {Hello,World,Oracle};
*st1=st1[2];
st1[1]=*st1;
free(st1[0]);
free(st1[1]);
clrscr();
printf("%s %s %s,st1,st1[1],st1[2]);
getch();
}

```

- A. Garbage Garbage Oracle
- B. oracle oracle oracle
- C. Hello World Oracle
- D. Core Dump: cannot Print after freeing the memory

ANS: D

Q29. What is the output of the program?

```

void main()
{
int i,j,k,n=5;
clrscr();
for(i=5;i>0;i--)
{
j=1
k=n&j;
k==0; printf(0):printf(1);
}
getch();
}

```

- A. 00011

- B. 11110
- C. 11001
- D. 11100

ANS: B. 11110

Q30. What is the output for the following code?

```
#include
main()
{
    static int a[]={5,10,15,20};
    int *ptr=a;
    int **ptr_ptr=&ptr;
    printf( %d,**ptr_ptr++);
}
```

- A. 5
- B. 10
- C. 15
- D. 6

Q31. What would be the output of the following program?

```
main()
{
    int y=128;
    const int x=y;
    printf(%d,x);
}
```

- A. 128
- B. Garbage value
- C. Error
- D. 0

Q32. If the following program (myprog) is run from the command line as myprog friday tuesday sunday, What would be the output?

```
main(int argc, char *argv[])
{
    while(sizeofargv)
        printf("%s",argv[--sizeofargv]);
}
```

- A. myprog friday tuesday sunday
- B. myprog friday tuesday
- C. sunday tuesday friday myprog
- D. sunday tuesday Friday

Q33. In the following program how would you print 50 using p?

```
main()
{
    int a[]={10, 20, 30, 40, 50};
    char *p;
    p= (char*) a;
}
```

ANS: `printf(%d,*((int*)p+4));`

Q34. Would the following program compile?

```
main()
{
    int a=10, *j;
    void *k;
    j=k=&a;
    j++;
    k++;
    printf( %u%u,j,k);
}
```

- A. Yes
- B. No, the format is incorrect
- C. No, the arithmetic operation is not permitted on void pointers
- D. No, the arithmetic operation is not permitted on pointers

Q35. What would be the output of the following program?

```
main()
{
    const int x=5;
    int *ptrx;
    ptrx=&x;
    *ptrx=10;
    printf("%d,x);
}
```

- A. 5
- B. 10
- C. Error
- D. Garbage value

Q36. Will the program compile?

```
class A
{
    public:
    static int a;
    A() {a=10};
};
int main()
{
    A b;
    Printf("%d,b.a);
    Return 0;
}
```

- A. yes

B. no

Q37. What is the difference between the following declarations?

```
const char *s;  
char const *s;
```

ANS: No difference

Q38. Point out the error in the following program

```
main()  
{  
int a=10;  
void f();  
a=f();  
printf( %d,a);  
}  
void f()  
{  
printf( Hi);  
}
```

ANS: The program is trying to collect the value of a void function into an integer variable.

Q39. What error would the following function give on compilation?

```
f(int a, int b)  
{  
int a;  
a=20;  
return a;  
}
```

- A. missing parenthesis in the return statement
- B. The function should be declared as `int f(int a, int b)`
- C. redeclaration
- D. None of the above

Q40. Point out the error in the following program

```
main()
{
    const char *fun();
    *fun()=A;
}
const char *fun()
{
    return Hello;
}
```

ANS: `fun()` returns to a `const char` pointer which cannot be modified.