C language

1) What is the 16-bit compiler allowable range for integer constants?

    a.   -3.4e38 to 3.4e38
      b. -32767 to 32768
      c. -32668 to 32667
      d. -32768 to 32767

Answer: (d) -32768 to 32767

2) Study the following program:

```
main()
{
        printf("KCP");
        main();
}
```

What will be the output of this program?

    a.   Wrong statement
      b. It will keep on printing KCP
      c. It will Print KCP once
      d. None of the these

Answer: (b) It will keep on printing KCP

3) What is required in each C program?

    a.   The program must have at least one function.
      b. The program does not require any function.
      c. Input data
      d. Output data

Answer: (a) The program must have at least one function.

4) What will this program print?

```
main()
{
  int i = 2;
```

```c
{
  int i = 4, j = 5;
  printf("%d %d", i, j);
}
printf("%d %d", i, j);
}
```

    a.   4525
      b. 2525
      c. 4545
      d. None of the these

Answer: (a) 4525

5) What is the output of this statement "printf("%d", (a++))"?

    a.   The value of $(a + 1)$
      b. The current value of a
      c. Error message
      d. Garbage

Answer: (b) The current value of "a".

6) Study the following program:

```c
main()
{
  char x [10], *ptr = x;
  scanf ("%s", x);
  change(&x[4]);
}
change(char a[])
{
  puts(a);
}
```

If abcdefg is the input, the output will be

    a.   abcd
      b. abc
      c. efg
      d. Garbage

Answer: (c) efg

7) Study the following program:

```c
main()
{
  int a = 1, b = 2, c = 3:
  printf("%d", a + = (a + = 3, 5, a))
}
```

What will be the output of this program?

   a.   6
     b. 9
     c. 12
     d. 8

Answer: (d) 8

8) Why is a macro used in place of a function?

   a.   It reduces execution time.
     b. It reduces code size.
     c. It increases execution time.
     d. It increases code size.

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Answer: (d) It reduces code size.

9) In the C language, the constant is defined _____.

   a.   Before main
     b. After main
     c. Anywhere, but starting on a new line.
     d. None of the these.

Answer: (c) Anywhere, but starting on a new line.

13) How many times will the following loop execute?

1. **for**(j = 1; j <= 10; j = j-1)
     a. Forever

b. Never

c. 0

d. 1

Answer: (a) Forever

10) A pointer is a memory address. Suppose the pointer variable has p address 1000, and that p is declared to have type int*, and an int is 4 bytes long. What address is represented by expression p + 2?

a.   1002

b. 1004

c. 1006

d. 1008

Answer: (d) 1008

11) What is the result after execution of the following code if a is 10, b is 5, and c is 10?

```
If ((a > b) && (a <= c))
     a = a + 1;
else
     c = c+1;
```

a.   a = 10, c = 10

b. a = 11, c = 10

c. a = 10, c = 11

d. a = 11, c = 11

Answer: (b) a = 11, c = 10

12) Which one of the following is a loop construct that will always be executed once?

a.   for

b. while

c. switch

d. do while

Answer: (d) do while

13) How many characters can a string hold when declared as follows?

1. **char** name[20]:
    a. 18
    b. 19
    c. 20
    d. None of the these

Answer: (b) 20

14) Directives are translated by the

a.   Pre-processor
    b. Compiler
    c. Linker
    d. Editor

Answer: (a) Pre-processor

15) How many bytes does "int = D" use?

a.   0
    b. 1
    c. 2 or 4
    d. 10

Answer: (c) 2 or 4

16) Which of the following will copy the null-terminated string that is in array src into array dest?

a.   dest = src;
    b. dest == src;
    c. strcpy(dest, src);
    d. strcpy(src, dest);

Answer: (c) strcpy(dest, src)

17) What will the result of num variable after execution of the following statements?

1. **int** num = 58;
2. num % = 11;
    a. 3

b. 5

c. 8

d. 11

Answer: (a) 3

18) What will the result of num1 variable after execution of the following statements?

```
1.  int j = 1, num1 = 4;
2.  while (++j <= 10)
3.  {
4.    num1++;
5.  }
```

a. 11

b. 12

c. 13

d. 14

Answer: (c) 13

19) What will the result of len variable after execution of the following statements?

```
int len;
char str1[] = {"39 march road"};
len = strlen(str1);
```

a. 11

b. 12

c. 13

d. 14

Answer: (c) 13

20) Study the following statement

```
#include <stdio.h>
  int main()
  {
    int *ptr, a = 10;
    ptr = &a;
    *ptr += 1;
```

```
      printf("%d,%d/n", *ptr, a);
   }
```

What will be the output?

   a.   10, 10
     b. 10, 11
     c. 11, 10
     d. 11, 11

Answer: (d) 11, 11

21) Given the following statement, what will be displayed on the screen?

1. **int** * aPtr;
2. *aPtr = 100;
3. printf("%d", *aPtr + 2;

     a. 100
     b. 102
     c. 104
     d. 108

Answer: (b) 102

22) Give the following declarations and an assignment statement. Which one is equivalent to the expression str [4]?

1. **char** str[80];
2. **char** * p;
3. p = str;

     a. p + 4
     b. *p + 4
     c. *(p + 4)
     d. p [3]

Answer: (c) *(p + 4)

23) Which one is the correct description for the variable balance declared below?

1. **int** ** balance;
     a. Balance is a point to an integer

b. Balance is a pointer to a pointer to an integer
c. Balance is a pointer to a pointer to a pointer to an integer
d. Balance is an array of integer

Answer: (b) Balance is a pointer to a pointer to an integer

24) Let p1 be an integer pointer with a current value of 2000. What is the content of p1 after the expression p1++ has been evaluated?

a.   2001
  b. 2002
  c. 2004
  d. 2008

Answer: (c) 2004

25) Let p1 and p2 be integer pointers. Which one is a syntactically wrong statement?

a.   p1 = p1 + p2;
  b. p1 = p1 - 9;
  c. p2 = p2 + 9;
  d. cout << p1 - p2;

26) Suppose that cPtr is a character pointer, and its current content is 300. What will be the new value in cPtr after the following assignment?

1. cPtr = cPtr + 5;
    a. 305
    b. 310
    c. 320
    d. 340

Answer: (a) 305

27) Which is valid expression in c language?

a.   int my_num = 100,000;
  b. int my_num = 100000;
  c. int my num = 1000;
  d. int my num == 10000;

Answer: (b) int my_num = 100000;

28) If addition had higher precedence than multiplication, then the value of the expression (1 + 2 * 3 + 4 * 5) would be which of the following?

a.   27
  b. 47
  c. 69
  d. 105

Answer: (d) 105

29) What will be the output of this program?

```
int main()
{
int a=10, b=20;
printf("a=%d b=%d",a,b);
a=a+b;
b=a-b;
a=a-b;
printf("a=%d b=%d",a,b);
return 0;
}
```
a. a = 20, b = 20
b. a = 10, b = 20
c. a = 20, b = 10
d. a = 10, b = 10

Answer: (c) a = 20, b = 10

30) The following statements are about EOF. Which of them is true?

a.   Its value is defined within stdio.h
  b. Its value is implementation dependent
  c. Its value can be negative
  d. Its value should not equal the integer equivalent of any character
  e. All of the these

Answer: (e) All of the these

31) What does this statement mean?

1. x - = y + 1;

    a. x = x - y + 1

    b. x = -x - y - 1

    c. x = x + y - 1

    d. x = x - y - 1

Answer: (d) x = x - y - 1

32) Study the following statement

```
for (i = 3; i < 15; i + = 3)
{   printf ("%d", i);
    ++i;
}
```

What will be the output?

    a.   3 6 9 12

    b. 3 6 9 12 15

    c. 3 7 11

    d. 3 7 11 15

Answer: (c) 3 7 15

33) Study the following statement

```
main()
{
   char *s = "Hello,"
   "World!";
   printf("%s", s);
}
```

What will be the output?

    a.   Hello, World!

    b. Hello,
       World!

    c. Hello

    d. Compile error

Answer: (b) Hello, World!

34) Study the following array definition

1. **int** num[10] = {3, 3, 3};

    Which of the following statement is correct?

    a.   num[9] is the last element of the array num
    b. The value of num[8] is 3
    c. The value of num[3] is 3
    d. None of the above

    Answer: (a) num[9] is the last element of the array num

35) What will the output after execution of the following statements?

```
main()
{
 printf ("\\n ab");
 printf ("\\b si");
 printf ("\\r ha");
}
```

    a. absiha
    b. asiha
    c. haasi
    d. hai

    Answer: (d) hai

36) What will the output after execution of the following statements?

```
void main()
{
 int i = 065, j = 65;
 printf ("%d %d", i, j);
}
```

    a. 065 65
    b. 53 65
    c. 65 65
    d. Syntax error

    Answer: (b) 53 65