Farrago C 2.0

Name:
Roll no:
Class:

-You will be given just 45 minutes to attempt the exam.
-Tick the option you think is correct.
- Any double tick will be assumed as incorrect

1. The keyword used to transfer control from a function back to the calling statement:
   a. switch
   b. goto
   c. go back
   d. return

2. A pointer is:
   a. A keyword used to create variables
   b. A variable that stores address of an instruction
   c. A variable that stores address of other variable
   d. All of the above

3. How many times will the while loop run if size of short int is 2 bytes.

```c
#include<stdio.h>
int main()
{
    int j=1;
    while(j <= 255)
    {
        printf("%c %d\n", j, j);
        j++;
    }
    return 0;
}
```

   a. Infinite times
   b. 255 times
   c. 256 times
   d. 254 times

4. Which of the following is not a logical operator?
   a. &
   b. &&
   c. ||
   d. !

5. The modulus cannot be used with a long double operator.
   a. True
   b. False

6. The operator used to get values at address stored in a pointer variable is
   a. *
   b. &
   c. &&
   d. ||

7. Point out the compile time error in the given program:

```c
#include<stdio.h>

int main()
{
    int *x;
    *x=100;
    return 0;
}
```

   a. Error: invalid assignment for x
   b. Error: suspicious pointer conversion
   c. No error
   d. None of the above

8. In the following program add a statement in the function fun() such that address of ‘a’ gets stored in ‘j’.

```c
#include<stdio.h>
int main()
{
    int *j;
    void fun(int**);
    fun(&j);
    return 0;
}
void fun(int **k)
{
    int a=10;
    /* Add a statement here */
}
```

a. **k =a;
b. k= &a;
c. *k=&a;
d. &k=*a;

9. To print out a and b given below, which of the following 'printf()' statements will be used?

```
#include<stdio.h>

float a=3.14;
double b=3.14;
```

a. printf("%f %lf", a, b);
b. printf("%Lf %f", a, b);
c. printf("%Lf %Lf", a, b);
d. printf("%f %Lf", a, b);

10. Minimum number of variables required to swap two variables is three.
a. True
b. False

11. Use of function
a. Helps to avoid repeating set of statements
b. Enhances the logical clarity of the program
c. Makes debugging easier
d. All of the above

12. Determine output

```
main()
{
        int i = abc(10);
        printf("%d",--i);
}
int abc(int i)
{
        return(i++);
}
```

a. 10
b. 9
c. 11
d. None of above

13. Functions have…
a. Local scope
b. Block scope
c. File scope
d. No scope at all

14. scanf() returns…
a. Actual values read for each argument
b. Number of successful read input values
c. Ascii value of input read
d. 1

15. Declare the following statement?
"A pointer to an array of three chairs"
a. char *ptr[3]();
b. char (*ptr)*[3];
c. char (*ptr[3])();
d. char (*ptr)[3];

16. What will you do to treat the constant 3.14 as a long double?
a. use 3.14LD
b. use 3.14L
c. use 3.14DL
d. use 3.14LF

17. Binary equivalent of 5.375 is?
a. 101.101110111
b. 101.011
c. 101011
d. none of the above

18. Predict output of the following code?

```
include <stdio.h>

    int main()
    {
        char str[10] = "hello";
        char *p = strrchr(str, 'l');
       printf("%c\n", *(++p));
    }
```

a. 1
b. 0
c. e
d. compilation error

19. Cos(x) returns

a. sine of x where x is in radians
b. sine of x where x is in degrees
c. cosine of x where x is in degrees
d. cosine of x where x is in radians

20. Output of this code?

```
#include <stdio.h>
struct student
{
    int no = 5;
    char name[20];
};
void main()
{
    struct student s;
    s.no = 8;
    printf("hello");
}
```

a. nothing
b. Compile time error
c. hello
d. Varies

21. Which part of the program address space is p stored in, in the program below?

```
#include <stdio.h>
int *p = NULL;
int main()
{
    int i = 0;
    p = &i;
    return 0;
}
```

a. Code/test segment
b. Data segment
c. Bss segment
d. Stack

22. Which of the following operators have the same precedence?

```
P. "!=", Q. "+=", R. "<<="
```

a. P and Q
b. Q and R
c. P and R
d. P,Q and R

23. Predict the output of the code?

```
#include <stdio.h>
union p
{
    int x;
    char y;
}k = {.y = 97};
int main()
{
   printf("%d\n", k.y);
}
```

a. compile time error
b. 97
c. a
d. depends on the standard

24. Which of these conversions is not accepted?

a) from char to int
b) from float to char pointer
c) from negative int to char
d) from double to char

25. After allocating a space using calloc(), which of the following is used to deallocate that memory?

a. free()
b. realloc()
c. dealloc()
d. malloc()

Q. Write a program to convert a decimal number to roman number.

Input: One Integer **N**
Constraint: **1 <= N <= 899**
Output: One String Containing Roman Letters Equivalent to **N**

Roman Numbers Reference

SYMBOL	VALUE
I	**1**
IV	**4**
V	**5**
IX	**9**
X	**10**
XL	**40**
L	**50**
XC	**90**
C	**100**
CD	**400**
D	**500**