M. C. A. ENTRANCE   **TEST CODE: C PROGRAMMING TEST - I**   **Total Questions: 25**
Max. Time: 30 Min.

1. Which of the following is evaluated first:
(a) && (b) || (c) ! (d) =

2. What does 7/9*9 equal (in C and C++)?
(a) 1 (b) 0.08642 (c) 0 (d) error

3. Which of the following is not a valid declaration for main()?
(a) int main() (b) int main(int argc, char *argv[])
(c) void main() (d) all of them are valid

4. Evaluate the following as true or false: !(1 &&0 || !1)
(a) True (b) False
(c) Invalid statement
(d) cannot be evaluated in true or false

5. If you continuously increment a variable, it will become negative?
(a) True (b) False
(c) It depends on the variable type (d) it will lead to infinity

6. What character terminates all strings composed of character arrays?
(a) \0 (b) . (c) \END (d) NULL

7. Evaluate the following:
```
int fn(int v)
{
if(v==1 || v==0)
return 1;
if(v%2==0)
return fn(v/2)+2;
else
return fn(v-1)+3;
}
for fn(7);
```
(a) 10 (b) 11 (c) 1 (d) 2

8. What is the output of the following code:
```
int v()
{
int m=0;
return m++;
}
int main()
{
printf("%d",v());
}
```
(a) 1 (b) 0 (c) Code cannot compile (d) 2

9. Evaulate the following: -22%5
(a) 2 (b) 4 (c) 0 (d) -2

10. Which datatype can store decimal numbers?
(a) unsigned int (b) char (c) float (d) long

11. What does the code "printf("%d",(0==0));" print?
(a) 0 (b) 1 (c) Compiler error: Lvalue required (d) 2

12. What will happen when the following code is run:
```
int x;
while(x<100)
{
printf("%d",x);
x++;
}
```
(a) The computer will output "0123...99"
(b) The computer will output "0123...100"
(c) The loop will not execute (d) The output is undefined

13. In the following declaration of main, "int main(int argc, char *argv[])", to what does argv[0] usually correspond?
(a) The first argument passed into the program
(b)The program name
(c) You can't define main like that
(d) The no. of arguments

14. What is the outcome of running the following code:

```
int c=0;
printf("%d%d",c++,c);
```

(a) Undefined   (b) 01   (c) 00   (d) 11

15. What is the maximum value of an unsigned char?

(a) 255   (b) 256   (c) 128   (d) 127

16. What does the line containing "break;" do in the following code?

```
void afunction()
{
if(1)
{
break;
a_function();
printf("Err");
}
}
```

(a) Breaks out of the if statement
(b) Exits the function   (c) Nothing (Compiler error)
(d) Nothing the function will be normaly executed

17. To what value are pointers initialized?

(a) NULL   (b) Newly allocated memory
(c) No action is taken by the compiler to initialize pointers.

18. What is the last index number in an array of 100 chars?

(a) 100   (b) 99   (c) 101   (d) 102

19. Which of the following data structures uses the least memory?

```
(a) struct astruct
{
int x;
float y;
int v;
};
(b) union aunion   (ans)
{
int x;
float v;
};
(c) char array[10];              (d) int arr[20];
```

20. What does the following code do?

```
void afunction(int *x)
{
x=(int *)malloc(sizeof(int));
*x=12;
}
int main()
{
int v=10;
```

```
afunction(&v);
printf(%d",v);
}
```

(a) Outputs 12   (b) Outputs 10
(c) Outputs the address of v   (d) Outputs the value of x

21. To what value do nonglobal variables default?

(a) Auto   (b) register   (c) static   (d) extern

22. When run on a computer, will a recursive function without an end condition ever quit?

(a)Compiler-Specific (Some compilers can convert these functions to infinite loops)
(b) No   (c) Yes   (d) none of the above

23. How long does the following code run? for(int x=0; x=3; x++)

(a)Never   (b)Three times   (c)Forever   (d) error

24. What value will "strcmp("Astring", "Astring");" return?

(a) A positive value   (b) A negative value
(c) Zero   (d) Strcmp is not a valid function

25. What is the correct value to return to the operating system upon the successful completion of a program?

(a) -1   (b) 1   (c) 0
(d) Programs do not return a value.