1. Consider the following program:

```c
main()
{
    char *x="xyz;
    f(k);
    printf("%s\n",k);
}

f(char *k)
{
    k=malloc(4);
    strcpy(k,"pq");
}
```

What will be the output?

[A] pq  
[B] xyz  
[C] syntax error  
[D] none of these

Answer & Explanation

**Answer: Option [C]**

There is an opening quote in the third statement but no closing. So syntax error occurs.
2. What does the following function print?

```c
func(int i)
{if(i%2) return 0;
else return 1;}
main()
{
int i=3;
i=func(i);
i=func(i);
printf("%d", i);
}
```

[A] 3
[B] 1
[C] 0
[D] 2

Answer & Explanation

**Answer: Option [B]**

3. What is wrong with the following function?

```c
int Main(int ac, char *av[])
{
if(ac==0) return 0;
else
{
printf("%s", av[ac-1]);
Main(ac-1, av);
}
return 0;
}
```

[A] Function cannot have name as Main, it should be main only
[B] The arguments' name must be argc and argv, respectively
[C] There cannot be two return statements in the function

```c
int func(int i)
{if(i%2) return 0;
else return 1;}
```
There is no error in the function. Here the Main() function differentiate with the main(). In the given problem the Main() has two arguments as int ac, char *av[]

4.

What is the following function determining?

- int fn(int a, int b)
  - {
    - if (b==0) return 0;
    - if (b==1) return a;
    - return a+fn(a, b-1);
  - }

[A] a+b where a and b are integers
[B] a+b where a and b are non-negative integers
[C] a*b where a and b are integers
[D] a*b where a and b are non-negative integers

Answer & Explanation

Answer: Option [B]

The above function is a recursive function. The function will return a+b where a and b are non-negative integers

5.

What is the output of the following code?

- main()
  - {
    - int a=1, b=10;
    - swap(a,b);
    - printf("\n%d%d", a,b);
  - }
- swap(int x, int y)
  - {
    - int temp;
    - temp=x;
    - x=y;
The 'call by value' method is applied in this program. Here the data is passed by value in the main(). So the variables are not changed.