Storage Classes: Introduction - 1

Which is not a storage class?

Choose any one

- auto
- struct ✓ correct answer
- extern
- static

Storage Classes: static - 1

What is the output of this C code?

```c
int main()
{
 static int x = 3;
 x++;
 if (x <= 5)
 {
   printf("CodeQuotient");
   main();
 }
 return 0;
}
```

Choose any one

- Run time error
- CodeQuotient
- CodeQuotient CodeQuotient ✔ correct answer
- Syntax Error

Storage Classes: static - 2

A static variable is one:

Choose any one

- Which cannot be initialized
- Which is initialized once at the commencement of execution and cannot be changed at runtime
- Which retains its value throughout the life of the program ✔ correct answer
- Which is the same as an automatic variable but is placed at the head of a program

Storage Classes: register - 1

What will be the output of below program?

```
int main()
{
 register int num = 5;
 printf("%d", num);
 return 0;
}
```

Choose any one

- 5 ✔ correct answer
- Garbage Value
- Syntax Error
- No output

Storage Classes: register - 2

Which of the following statement are correct?

(i) The value stored in the CPU register can always be accessed faster than that stored in memory.

(ii) A register storage class variable will always be stored in a CPU register.

Choose any one

- Only I is correct ✔ correct answer
- Only II is correct
- Both I & II are correct
- Both I & II are incorrect

Storage Classes: extern - 1

What will be the output of below program?

```c
#include <stdio.h>
int main()
{
 extern int num;
 printf("%d", num);
 return 0;
}

int num = -1;
```

Choose any one

- 0
- -1 ✔ correct answer
- Garbage
- Syntax Error

Storage Classes: extern - 2

What will be the output of below program?

```
int main()
{
 extern int num;
 printf("%d", num);
 return 0;
}
```

Choose any one

- 0
- -1
- Garbage
- Syntax Error ✔ correct answer

Storage Classes: auto - 1

Where will the space be allocated for an automatic storage class variable?

Choose any one

- In CPU register
- In memory as well as in CPU register
- In memory ✔ correct answer
- On disk

Storage Classes: auto - 2

In below program, the variable x is having which storage class?

```
int main()
{
 int x;
 return 0;
}
```

Choose any one

- auto ✔ correct answer
- static
- extern
- register

Static storage class

Predict the output of the following code?

```
#include<stdio.h>
void fun1()
{
        static int x;
        x++;
        printf("%d\n",x);
}

int main()
{
        int i=0;
        for(;i<5;i++)
                fun1();
        return 0;
}
```

Choose any one

- 23456
  23457
  23458
  23459
  23460
- 1
  1
  1
  1
  1
- 1 ✔ correct answer
  2
  3
  4
  5
- Run time error

Storage Classes: Summary - 1

Write the name of storage class having following specification from (auto, register, static, extern)

Your answers

1.) Scope of the variable is global.

extern ✓

2.) Value of the variable persists between different function calls.

static ✓

3.) Value stored in memory and local to the block in which the variable is defined.

auto ✓

4.) Value stored in CPU registers.

register ✓

Storage Classes: Summary - 2

A global variable is a variable

Choose any one

- declared in the main ( ) function.
- declared in any function other than the main ( ) function.
- declared outside the body of every function. ✔ correct answer
- declared anywhere in the C program.

Storage Classes: Summary - 3

Which of the following statement are correct?

(i) The maximum value a variable can hold depends upon its storage class.

(ii) By default all variables enjoy a static storage class.

Choose any one

- Only I is correct
- Only II is correct
- Both I & II are correct
- Both I & II are incorrect ✓ correct answer

Storage Classes: Summary - 4

In case of a conflict between the names of a local and global variable what happens?

Choose any one

- The global variable is given a priority.
- The local variable is given a priority. ✔ correct answer
- Which one will get a priority depends upon which one is defined first.
- The compiler reports an error.

Storage Classes: Summary - 5

What will be the output of below program?

```c
#include<stdio.h>
int main()
{
        static unsigned int a = 55;
        register unsigned char c = 'C';
        auto long unsigned q = 34L;
        static long signed p = 35L;
        printf("%d %c %ld %ld", a ,c,q,p);
        return 0;
}
```

Choose any one

- 55 C 34 35 ✔ correct answer
- 55 C 0 0
- Garbage values
- 55 C 3400000 3500000