

MG-109

May-2022

Int. M.Sc. (CA & IT), Sem.-II**Advance C Programming****Time : 2 Hours]****[Max. Marks : 50****SECTION – I**Attempt any **three** from the following :

1. (A) Answer any **three** from the following : **12**
- (1) What is the advantage of Structure ? Explain with example.
 - (2) Explain difference between call by value & call by reference in function.
 - (3) What is Pointer ? Explain Pointer to Array with example.
 - (4) Explain Array of Structure with example.
- (B) Explain recursion function. **2**
2. (A) Answer the following : **7**
- (1) Explain Function with argument and Returning value with example. **5**
 - (2) Explain Enum. **2**
- (B) Answer the following : **7**
- (1) **struct** Employee **2**

```

{
    int id;
    char name[20];
    struct Date
    int dd;
    int mm;
    int yyyy;doj;
}empl

```

Find out the errors from the above code.
 - (2) Explain Union with example. **5**

3. (A) Answer the following : 7
- (1) `#include<stdio.h>` 2
- ```

void main ()
{
 int a = 10; int *p; int **pp;
 p = &a; pp = &p;
 printf("address of a: %x\n",p); printf("address of p: %x\n",pp);
 printf("value stored at p: %d\n",*p); printf("value stored at pp:
 %d\n",**pp);
}

```
- Write the correct output for the above code.
- (2) Write the difference between Union and Structure with example. 5
- (B) Answer the following : 7
- (1) `#include<stdio.h>` 4
- ```

void main ()
{
    int a[10] = {100, 206, 300, 409, 509, 601};
    int *p[] = {a, a+1, a+2, a+3, a+4, a+5}; int **pp = p;
    pp++; printf("%d %d %d\n",pp-p,*pp - a,**pp);
    *pp++; printf("%d %d %d\n",pp-p,*pp - a,**pp);
    ++*pp; printf("%d %d %d\n",pp-p,*pp - a,**pp);
    ++**pp; printf("%d %d %d\n",pp-p,*pp - a,**pp);
}

```
- What will be the output of the above code ?
- (2) Explain any two from the following with the help of example: 3
- (A) Strcpy()
- (B) Strcmp()
- (C) Strupr()
4. (A) Answer the following : 7
- (1) Write a program to open file named emp.txt just to read and close it. 3
- (2) Explain any two from the following with the help of example : 4
- (A) fseek()
- (B) ftell
- (C) rewind()
- (B) Answer the following : 7
- (1) Explain any four file opening modes in detail. 4
- (2) `#include <stdio.h>` 3
- ```

void main(){
 FILE *fp;
 fp = fopen("myfile.txt","w+");
 fputs("This is java programming", fp);
 fseek(fp, 7, SEEK_SET);
 fputs("C programming", fp);
 fclose(fp);
}

```
- Write the correct output for the above code.

5. (A) Answer the following : 7
- (1) **union** abc{ 3
- ```

int a;
char b;
float c;
double d;
};
int main()
{
printf("Size of union abc is %d", sizeof(union abc));
return 0;
}

```
- Write correct output for the above code.
- (2) Explain Nested structure within example. 4
- (B) Answer the following : 7
- (1) `#include <stdio.h>` 2
- ```

enum months {jan=1, feb, march, april, may, june, july, august, september,
october, november, december
};
int main()
{
// printing the values of months
for(int i=jan;i<=december;i++)
{
printf("%d, ",i);
}
return 0;
}

```
- Write correct output of the above code.
- (2) `#include <stdio.h>` 2
- ```

enum status {success, fail};
enum boolean {fail,pass};
int main(void) {
printf("The value of success is %d", success);
return 0;
}

```
- Write an output for the above code.
- (3) Explain Function with argument and No Returning value with example. 3

SECTION – II

- Answer ANY **EIGHT** : **8**
- (1) A Function can return only ___ values. **1**
(A) 0 (B) 1
(C) 2 (D) None of the given
- (2) _____ opens a text file in reading mode. **1**
(A) r (B) w
(C) a (D) None of the given
- (3) The size of pointer variable in 32-bit architecture is _____ byte. **1**
(A) 2 (B) 3
(C) 1 (D) None of the given
- (4) The _____ function is used to write set of characters into file. **1**
(A) fprintf() (B) printf()
(C) fscanf() (D) None of the given
- (5) The pointer in C language can be declared using _____. **1**
(A) * (B) ?
(C) % (D) None of the given
- (6) Struct emp **1**
{
 Int emp_id
 Char emp_name[20];
}e1;
Size of e1 is _____.
(A) 22 bytes (B) 2 bytes
(C) 4 bytes (D) None of the given.
- (7) If we do not provide any value to the enum names, then the compiler will automatically assign the default values to the enum names starting from _____. **1**
(A) 0 (B) 1
(C) 7 (D) 5
- (8) The _____ is a keyword used in C programming to provide some meaningful names to the already existing variable in the C program. **1**
(A) Typedef (B) Enum
(C) Struct (D) None of the given
- (9) Using pointer we can return multiple values in a function.-T/F **1**
- (10) The strcmp(first_string, second_string) function compares two string and returns 0 if both strings are equal.-T/F **1**