

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Max Marks: 60

Max Time: 90 Mins

Weightage: 30 %

Set B

COMPREHENSIVE EXAMINATION

I Semester 2016-2017

Course: COE A 102 Computer Programming

20 January 2017

Instructions:

- i. Write legibly
- ii. Scientific and non programmable calculators are permitted

Part A

Answer the following questions

(4 Q x 6 M= 24 Marks)

1. Replace the switch-case statements in the following C program with if-else if-else statements.

```
int main(void) {
int n; scanf("%d",&n);
switch(n)
{
case 10:
case 11:
case 12:
case 13:
case 14:
printf("Very Good "); break;
case 15:
case 16: printf("I Like it");break;
case 17:
case 18: printf("Almost reached the target");break;
case 19:
case 20: printf("Won the match");break;
default: printf(" Do not know the result");
}
return 0;}
```

2. What is the output of the following program? You can decide the input.

```
void series(int *var){
for(int i=*var;i<(*var+10);i++)
printf("%d\t",i);
}
int main(){
int num;
printf("\nEnter starting number:\n");
scanf("%d",&num);
series(&num);
return 0; }
```


3. Explain the concepts of the functions with parameter and without return value. Illustrate with an example.
4. What is the output of the following C program?

```

int main()
{
    char str1 []="Mukunda",str2 []="Murari",str3 []="Friendforlife";
    printf("\nOutput1=%d",strlen(str1));
    printf("\nOutput2=%d",strlen(str2));
    printf("\n Output3=%s",strev(str1));
    strev(str1);
    printf("\n Output4:%s",strcat(str1,str2));
    printf("\n Output5=%s",strcpy(str1, "march"));
    printf("\n Output6=%d",strcmp(str1,str2));
    printf("\n Output7=%s",strncpy(str2,&str3[5],3));
}

```

Part B

Answer the following questions

(2 Q x 10 M= 20 Marks)

1. Declare a structure called ROOM with the following attributes: *Room_number*, *Room_Capacity* and *Room_size* of a room in the University. Write a function display () print the details of 10 rooms. Hint: display () function should take an array of structure and size.
2. Write a flowchart for the following program

```

int main(void) {
int i;

for(i=10;i>=0;i--)
if(i==5)
printf("Five");
else if(i==2)
printf("TWO");
else
printf("non of the above");
return 0;}

```

Part C

Answer the following question

(1 Q x 16 M= 16 Marks)

1. WAP to insert an element into an array by accepting the position. If any element is present in the existing position, shift the existing element and place the element which is read recently into desired position.

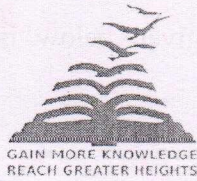
Example:

If the array is as given below:

A[0]	A[1]	A[2]	A[3]	A[4]	A[5]	A[6]	A[7]
12	23	21	15	4			

Iteration 1: if the element is 5 and position is 3. The array should get updated as shown.

A[0]	A[1]	A[2]	A[3]	A[4]	A[5]	A[6]	A[7]
12	23	21	5	15	4		



PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Max Marks: 60

Max Time: 90 Mins

Weightage: 30 %

Set A

COMPREHENSIVE EXAMINATION

I Semester 2016-2017

Course: COE A 102 Computer Programming

20 January 2017

Instructions:

- i. Write legibly
- ii. Scientific and non programmable calculators are permitted

Part A

Answer the following questions

(4 Q x 6 M= 24 Marks)

1. Replace the if-else if-else in the following C program with switch-case statements.

```
int main(void) {
    char c;
    scanf("%c",&c);
    if(c=='a' || c=='A' || c=='b' || c=='B')
        printf(" AB");
    else if(c=='c' || c=='C' || c=='d' || c=='D')
        printf("CD");
    else
        printf("None of the Above");
    return 0;}
```

2. What is the output of the following C program?

```
int main()
{
    char str1 []="jAnuAry",str2 []="MARCH",str3 []="marchant";
    printf("\nOutput1=%d",strlen(str1));
    printf("\nOutput2=%d",strlen(str2));
    printf("\nOutput3=%s",strrev(str1));
    strrev(str1);
    printf("\nOutput4:%s",strcat(str1,str2));
    printf("\nOutput5:%s",strcpy(str1,"march"));
    printf("\nOutput6:=%d",strcmp(str1,str2));
    printf("\n Output7=%s",strncpy(str2,&str3[5],3));
}
```

3. "Passing the array is pass-by reference by default" Explain with an example.

4. How many times "Presidency University" will be printed when the program given below is executed?

```
int main()
{
    int x;
    for(x=1; x<=10; x++)
    {
        if(x < 5)
            continue;
        else
            break;
        printf("Presidency University");
    }
    return 0;
}
```

Part B

Answer the following questions

(2 Q x 10 M= 20 Marks)

1. Write a flow chart for the following program.

```
int main(void)
{
    int i,j;
    for(i=1;i<=5;i++)
        for(j=1;j<=2;j++)
            printf("**\n");
    return 0;
}
```

2. Declare a structure **CAR** with the following attributes: *Model-Name*, *Color* and *Model_Number* of a car. Write a function `display ()` to print the details of 10 cars. Hint: `display ()` function should take an array of structure and size.

Part C

Answer the following questions

(1 Q x 16 M= 16 Marks)

1. WAP to read an array and arrange the elements in such a way that all even numbers followed by odd numbers. (Do not use temporary array)

Example: Input array

1	2	3	4	5	6	7
---	---	---	---	---	---	---

After operation

1	3	5	7	2	4	6
---	---	---	---	---	---	---