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**PRESIDENCY UNIVERSITY  
BENGALURU**  
**SCHOOL OF ENGINEERING**

**Mid Term**

**Even Semester:** 2018-19  
**Course Code:** CSE 151  
**Course Name:** Computer Programming  
**Program & Sem:** B.Tech & II Sem

**Date:** 13 April 2019  
**Time:** 1 Hour  
**Max Marks:** 20  
**Weightage:** 10%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark. (5Qx1M=5)

1. Which of the following variables are valid and invalid according to C programming language?  
a) Sun-Moon      b) \_Example      c) 2Sem      d) sizeof

2. Give the output of the expression if executed using C Programming language.

<code>int a=10,b=3,c=2,d=4,res;</code>	<code>res=a+a*b/c%d+c*d;</code>
--	---------------------------------

3. What is the Output of following two printf statements?

<code>a) float a=5.0; printf("The output is %.2f", (7/5)*a+12);</code>	<code>b: int a=2,b=3; a=a+b; b=a-b; a=a-b; printf("%d%d",a,b);</code>
--	---

4. What is the value of Q1, Q2, Q3 and Q4?

`(p%3!=0)&&(q<r)||r>2`

p	q	r	p%3!=0	q<r	(p%3!=0)&&(q/r)	Q3  r>2
6	4	6	Q1	Q2	Q3	Q4

5. Finding error in the following program.

```
void main()
{
    int m1,m2,total;
    printf("Enter three subject marks \n");
    scanf("%d%d",&m1,&m2,&m3);
    total==m1+m2+m3;
    printf("Total = %d",&total);
    avg=total%3;
    printf("avg = %d",avg);
}
```

## Part B

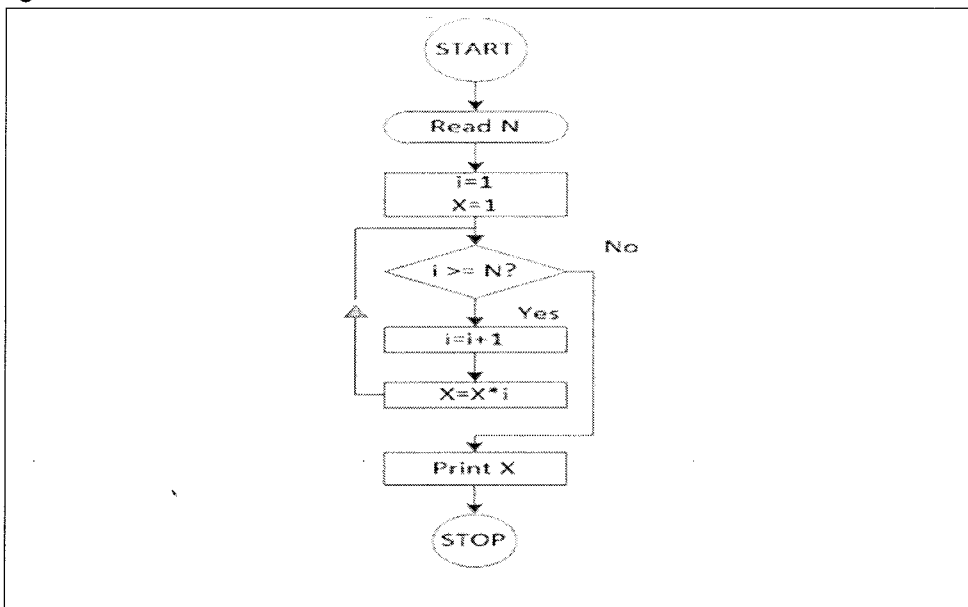
Answer **both** the Questions. **Each** question carries **four** marks.

(2Qx4M=8)

6. Converting if-elseif-else to switch statement of C programming language.

```
#include <stdio.h>
void main()
{
    int color;
    printf("Please choose a color(1: red,2: green,3: blue):\n");
    scanf("%d", &color);
    if(color==1)
        printf("you chose red color\n");
    else if(color==2)
        printf("you chose green color\n");
    else if(color==3)
        printf("you chose blue color\n");
    else
        printf("you did not choose any color\n");
}
```

7. For given flow chart, writ an equivalent **while** and **for** loop statements in C programming language.



## Part C

Answer the Question. The Question carries **seven** marks.

(1Qx7M=7)

8. Trace the output of following program as per the format given.

NOTE: till the condition not violate/Fail.

<pre>for(m =10; m &lt;=16 ; m+=3 ) { temp=1; for(n = 6; n &gt; 2; n=n-2) { temp = temp * (m - n); } }</pre>		Iteration	m	n	temp



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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**SET A**

**END TERM FINAL EXAMINATION**

**Even Semester:** 2018-19

**Date:** 25 May 2019

**Course Code:** CSE 151

**Time:** 1 Hour

**Course Name:** Computer Programming

**Max Marks:** 20

**Program & Sem:** B.Tech & II Sem (Chemistry cycle)

**Weightage:** 10%

**Instructions:**


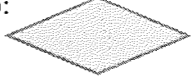


(i) *Read all questions carefully and answer all the questions.*

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark.

(5Qx1M=5M)

1. Which of the following symbol is used to represent the Computation/Calculation in a flow chart?

a: 	b: 	c: 	d: 
--	--	--	--

2. The symbol used to represent NULL is:

a: \t	b: \n	c: \0	d: \b
-------	-------	-------	-------

3. The output of the following program is

```
void main()
{
  int a[10]={10,20,30,40,50,60,75};

  printf("%d",a[5]);
}
```

a: 60	b: 58	c: 59	d: 50
-------	-------	-------	-------

4. What is the output of the below program?

```
void main()
{
  int a=10,b=2,c=3,d=4,result;
  result=(b*(d+c))+(b*d+c);
  printf("result=%d",result);
}
```

a: result=25	b: result=28	c: result=22	d: result=24
--------------	--------------	--------------	--------------

5. Consider the declaration and reading of a string in C programming language:

```
char name[100];
scanf("%s",name);
```

Which of the following is same as the above?

a:	b:	c:	d:
char name[100];	char name[100];	char name[100];	char name[100];
for(i=0;i!='\0';i++)	for(i=0;i!=' ';i++)	for(i=0;i!=' ';i++)	for(i=0;i<=n;i++)
scanf("%c",&name[i]);	scanf("%c",&name[i]);	scanf("%c",name);	scanf("%c",&name[i]);

**Part B**

Answer **both** the Questions. **Each** question carries **four** marks. (2Qx4M=8M)

6. Trace the output of following program

<pre>for (i=1;i&lt;=3;i++) { for (j=1;j&lt;3;j++) { if (i*j ==2) break; printf("c = %d\n",i*j); } } }</pre>	i	j	C

7. For the following program, identify and comment on the following:

<pre>int is_odd (int x) { int rem; rem=x%2 return rem; } void main() { int n, p; printf("enter a number\n"); scanf("%d",&amp;n); p=is_odd(n); if(p==1) printf("%d is an odd number\n",p); else printf("%d is an even number\n",p); } }</pre>	<p>a. Function name</p> <p>b. Category of the function</p> <p>c. Actual parameters</p> <p>d. Formal parameters</p> <p>e. Return type</p> <p>f. Return value</p>
--	---

**Part C**

Answer the Question. **The** question carries **seven** marks.

(1Qx7M=7M)

8. For the following program, Design the appropriate flow chart

```
void main()
{
int num_of_students, rollnumber, index;
char sec;
printf("enter total number of students\n");
scanf("%d",&num_of_students);
for( index=1; index<=num_of_students; index++)
{
printf("Enter the section for student %d \n", index);
scanf(" %c ", &sec);
printf("Enter the roll num for student %d \n", index);
scanf(" %d ", &rollnumber);
if (sec == 'A' || sec == 'C' )
{
if( rollnumber %2==0)
printf("Room number allotted for the student is 101 \n");
else
printf("Room number allotted for the student is 102 \n");
}
else if(sec == 'D' || sec =='B')
printf("Room number allotted for the student is 103 \n");
else
printf("No room allotted for the student\n");
}
}
```



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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**SET B**

**END TERM FINAL EXAMINATION**

**Even Semester:** 2018-19

**Date:** 25 May 2019

**Course Code:** CSE 151

**Time:** 1 Hour

**Course Name:** Computer Programming

**Max Marks:** 20

**Program & Sem:** B.Tech & II Sem (Chemsitry cycle)





**Weightage:** 10%

*Instructions: i) Read all questions carefully and answer all the questions.*

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark.

(5Qx1M=5M)

1	Following symbol is used to represent the input / output operation in a flowchart		
a:		b:	
c:		d:	

2	The symbol used to print statement in next line is:		
a	<code>\t</code>	b:	<code>\n</code>
c:	<code>\0</code>	d:	<code>\b</code>

3	The output of the following program is <pre>void main() { int a=58,b=1; printf("%d",a+b++); }</pre>		
a:	60	b:	58
c:	59	d:	50

4	Consider the while loop <pre>i=100; n=500; while(i&lt;=n) { printf("the value of i=%d",i); i=i-1; }</pre> Which of the following loop is same as this?		
a:	b:	c:	d:
n=500 for(i=100;i<=n;i++)	n=500 for(i=0;i<=n;i- -)	n=500 for(i=100;i<=n;i- -)	n=500 for(i=100;i<n;i- -)

5	Consider the function below, Which is the correct function call? <pre>void function(int m) { int result; result =m*m; printf("%d",result); }</pre>		
a:	b:	c:	d:
void main() { int result,m=10; result=function(m); }	void main() { float result,m=10; result=function(m); }	void main() { int result,m=10; function(m); }	void main() { int result,m=10; function( ); }

**Part B**

Answer **both** the Questions. **Each** question carries **four** marks. (2Qx4M=8M)

6. Trace the output of the following program:

<pre>count=0; for(i=0;i&lt;3;i++) { for(j=0;j&lt;=i;j++) { if((i+j)%2==0) { count++; } } }</pre>	Iteration no	i	j	count

7. Explain the following code with respect to context given below:

- a) Function name
- b) Return type and Return value
- c) Function call
- d) Function Parameters (Actual & formal)

```
#include <stdio.h>
void swap( int p1, int p2 )
{
int t;
t = p1;
p1 = p2;
p2 = t;
printf("After: Value of a = %d and value of b = %d\n", p1, p2
);
}
void main()
{
int a = 10, b = 20;
printf("Before: Value of a = %d and value of b = %d\n", a, b
);
swap( a, b );
}
```

**Part C**

Answer the Question. The Question carries **seven** marks.

(1Qx7M=7M)

8. Draw the flowchart for the code given below.

```
#include <stdio.h>
void main()
{
int num, x, rem, res = 0;
printf("Enter a three digit integer: ");
scanf("%d", &num);
x = num;
while (x != 0)
{
rem = x%10;
res += rem*rem*rem;
x=x/10;
}
if(res == num)
printf("%d is an Armstrong number.",num);
else
printf("%d is not an Armstrong
number.",num);
}
```



Roll No

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**SUMMER TERM / MAKE UP END TERM EXAMINATION**

**Semester:** Summer term 2019

**Date:** 24 July 2019

**Course Code:** CSE 151 / COE A 102

**Time:** 1 Hour

**Course Name:** Computer Programming

**Max Marks:** 20

**Program &Sem:** B.Tech (All Batches) **Except 2017 Batch**

**Weightage:** 10%


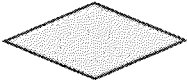

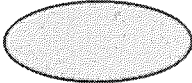
**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark.

(5Qx1M=5M)

Q1	Following symbol is used to represent the computation operation in a flowchart		
a:	b:	c:	d:
			

Q2	The symbol used to print statement in next line is:		
a:	b:	c:	d:
\t	\n	\0	\b

Q3	The output of the following program is <pre>void main() { int a=28,b=2; printf("%d",++a*b); }</pre>		
a:	b:	c:	d:
60	58	59	50

Q4	<p>Consider the while loop</p> <pre> i=100; n=500; while(i&lt;=n) { printf("the value of i=%d",i); i=i - 1; } </pre> <p>Which of the following loop is same as this?</p>		
<p>a:</p> <pre> n=500 for(i=100;i&lt;=n;i++) </pre>	<p>b:</p> <pre> n=500 for(i=0;i&lt;=n;i- -) </pre>	<p>c:</p> <pre> n=500 for(i=100;i&lt;=n;i- -) </pre>	<p>d:</p> <pre> n=500 for(i=100;i&lt;n;i- -) </pre>

Q5	<p>Consider the nested loop written in C programming language.</p> <pre> for(i=1;i&lt;4;i++) { for(j=1;j&lt;=2;j++) printf("*"); printf("\n"); } </pre> <p>The output of the following program is:</p>		
<p>a:</p> <pre> * * * * * * * * </pre>	<p>b:</p> <pre> * * * * * * * * * </pre>	<p>c:</p> <pre> * * * * * * </pre>	<p>d:</p> <pre> * * * * * * </pre>



### Part B

Answer **both** the Questions. **Each** question carries **four** marks.

(2Qx4M=8M)

Q6. Trace the output of following program

<pre> d=4; a[d] = 1; for ( c = 30 ; c &gt; 20 ; c = c - 10) {     prod = a[d];     for ( d = 4 ; d &lt;8 ; d = d + 2 )     {         a[d] = prod * ( c - d );         printf ( “ %d ” , a[d] );     } }                 </pre>	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">c</th> <th style="padding: 5px;">d</th> <th style="padding: 5px;">Output</th> </tr> </thead> <tbody> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> <tr><td style="height: 20px;"> </td><td> </td><td> </td></tr> </tbody> </table>	c	d	Output																					
c	d	Output																							

Q7. Explain the following with respect to the context for the given program:

- |                                 |                  |
|---------------------------------|------------------|
| a. Function Name                | b. Parameter     |
| c. Return type and return value | d. Function call |

Program to find perimeter of a hexagon with side = 4 using function:

<pre> int hexagon_perimeter ( int side ) {     int perimeter;     perimeter = 6 * side;     return ( perimeter ); }                 </pre>	<pre> void main() {     int s, p;     printf ( "\n Enter the value of the side of the hexagon:\n" );     scanf ( "%d", &amp;s );     p = hexagon_perimeter ( s );     printf ( "\n The perimeter of the hexagon is %d" ,p ); }                 </pre>
--	---

### Part C

Answer the Question. **Each** question carries **seven** marks.

(1Qx7M=7M)

Q8. Write Flowchart for the given Program with conditional statements:

```
void main()
{
    int ch;
    printf("Enter the choice code for Literary Genres of Books [108,1008,555] : \t");
    scanf("%d",&ch);
    if(ch==108)
        printf("Poetry");
    else if(ch==1008)
        printf("Fiction");
    else if(ch==555)
        printf("Non Fiction");
    else
        printf("Invalid choice");
}
```