Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Comprehensive Course: COE **A 102 Computer Programming**
(Closed Book)

Max Marks: 40 Max Time: 1 Hour Weightage: 20 % 27 May 2016 **Set A**

Part A **(4X2= 8M)**

1. What is the output of the following error free code?

```
int main()
{
  int a[5] = {5,1,15,20,25};
  int i,j,m;
  i = ++a[1];
  j = a[1]++;
  m = a[i++];
  printf("%d    %d", j, m);
 return(0);
}
```

2. The _____ library function is used to find the length of a string and the _____ library function is used to extract a substring from a string.

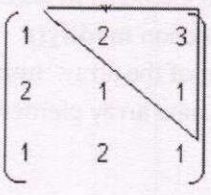
3. What is the size of memory allocated for the variables variable1 and variable2?

struct example1
{
int a[20];
float b[20];
char c[20];
};
struct example1 variable1;
	union example2
	{
	int a[20];
	float b[20];
	char c[20];
	};
	union example2 variable2;

4. Convert the binary number $(1111101010100101)_2$ into the equivalent hexadecimal number.

Part B **(4X5= 20M)**

5. Convert the decimal floating point -273.12 into IEEE-754 32-bit floating point representation.
6. Write a C program to add all upper triangle elements of the matix.
   Example:



Result=6.

7. Complete the following C program to display the series of numbers as given below for the input value x=4:

```
1
2 1
3 2 1
4 3 2 1
4 3 2 1
3 2 1
2 1
1
```

```
int main(void)
 {
int i,j;
for(i=1;____;i++)
{
for(j=i;_____;j--)
{
printf("%d\t",j);
}
printf("\n");
}
for(_____;____;i--)
{
for(j=i;____;j--)
{
printf("%d\t",j);
}
printf("\n");}
}
```

8. Assume *XYZ Company* wants to collect the manufactured products delivery information *(PDI)* like name of the product (*PName*), ID of the product (*PID*), Quantity (*Qty*), Delivery date (*DD*), Net sale price (*NP*) and Delivery Address *(D_Address)* with respect to the product delivery p1. Write a C program to create a structure for PDI and to read and print the value of all structure members with respect to the product delivery p1.

The skeleton of the code is given as follows for the same.

```
int main(void) {
struct PDI
{
// Complete the member declarations
}p1;
 // your code goes here to read and print the product delivery p1 information
return 0;
}
```

Part C

(1X12= 12M)

9. Write a C program which does the following tasks:
   a) Reads an integer array **'num'** of 10 elements in **main().**
   b) Pass the entire array **'num'** to a function **modify()**
   c) In **modify(),** multiply each element of the array **'num'** by 6.

Return the control to **main()** and print the new array elements in **main().**

----------**END**----------

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Comprehensive

Course: COE **A 102 Computer Programming**
(Closed Book)

Max Marks: 40 Max Time: 1 Hour Weightage: 20 % 27 May 2016 **Set B**

Part A **(4X2= 8M)**

1. Convert the binary number $(1010101010101101111)_2$ into the equivalent hexadecimal number.
2. What is the output of the following error free code?

```
int main()
{
  int a=2, b=0;
  int y = (a > b) ? a : b;
 printf("%d\n", y);
return 0;
}
```

3. What is the output of the following program?

```
int main()
{
  char src[40];
  char dest1[12];
   strcpy(src,"I am in Presidency University");
   strncpy(dest1, src,8);
   dest1[8]='\0';
  printf("Final copied string : %s\n", dest1);
  return(0);
}
```

4. Explain with example the class of function **"with parameters and without return value"**.

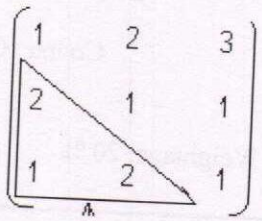
Part B **(4X5= 20M)**

5. Represent the decimal number **-6.625** in IEEE 32 bit Floating point format.
6. Complete the following program to display the following pattern.

```
4 3 2 1
3 2 1
2 1
1
1
2 1
3 2 1
4 3 2 1
```

```
int main(void) {
int i,j;
for(___;i>=1;i--){
for(j=i;___;j--){
printf("%d \t",j);}
printf("\n");}
for(_____ ;_____;i++) {
for(j=i;_____;j--){
printf("%d \t",j);}
 printf("\n");} }
```

7. Write a C program to compute sum of elements in lower triangle of the matrix as shown in the example below:



result =5.

8. The feedback of demo lecture is collected from students. Write a C program to implement the feedback system by designing the structure with following field. Name of student **(Sname)**, Name of faculty **(fname)**, Topic discussed **(TS)**, Date **(dt)**, Time**(T)**, ranking **(Satisfied, not-satisfied)**, Comments **(cmts)**.

   - Write the structure definition for above requirement.

```
struct feedback
{
 //complete the structure
}
```

   - Write a program to declare a structure variable, read and display the value to the member of the structure variable.

Part C **(1X12=12 M)**

9. Write a program to display the table of given number. Write two different functions, one for accepting the input, and another one for calculating and displaying the table. Write main function to call these two functions.
   Follow the function name and prototype as given below:

```
int input_number(void);
void calculate_display_table(int);
```

END

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Test 1 Course: **COE A 102 Computer Programming** (Closed Book)

Max Marks: 20 Max Time: 50 Min Weightage: 10 % 14 Mar 2016 **Set A**

Q 1 Answer the following in short **(5Q x 1M= 5M)**

A. Explain typecasting with example.
B. Give the syntax to read the values to variables from standard input device in C programming Language.
C. List all arithmetic operators in C with the data type of the operands they are used.
D. What is the most negative number that can be represented in 2's Complement using n bits?
E. Which function should be present in every C program? Write the syntax of defining this function.

2 Answer the following **(4Qx 2.5M= 10M)**

1. Using 8 bit 2's Complement arithmetic find the sum of 23 and -15. Also check whether there is an overflow or not with suitable justification
2. Give the binary equivalent representation of the following sentence: ch='m' Hint: Use ASCII table.
3. Show the 8 bits 2's complement representation of the following decimal numbers

   a =114, b=17, c=-73.
   Perform the following arithmetic in binary.
   a+b and b+c
   Check for overflow of each operation.

4. Give 32 bit IEEE floating point representation of $(-125.125)_{10}$.

Q 3 Draw a flowchart to read the value of the variable n and compute the following series **(5 M)**

$1^2-2^2+3^2-4^2\ldots\ldots+n^2$

	000	001	010	011	100	101	110	111
0000	NULL	DLE		0	@	P	`	p
0001	SOH	DC1	!	1	A	Q	a	q
0010	STX	DC2	"	2	B	R	b	r
0011	ETX	DC3	#	3	C	S	c	s
0100	EDT	DC4	$	4	D	T	d	t
0101	ENQ	NAK	%	5	E	U	e	u
0110	ACK	SYN	&	6	F	V	f	v
0111	BEL	ETB	'	7	G	W	g	w
1000	BS	CAN	(	8	H	X	h	x
1001	HT	EM	)	9	I	Y	i	y
1010	LF	SUB	*	:	J	Z	j	z
1011	VT	ESC	+	;	K	[	k	{
1100	FF	FS	,	<	L	\	l	|
1101	CR	GS	-	=	M	]	m	}
1110	SO	RS	.	>	N	^	n	~
1111	SI	US	/	?	O	_	o	DEL

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Test 1 Course: **COE A 102 Computer Programming** (Closed Book)

Max Marks: 20 Max Time: 50 Min Weightage: 10 % 14 Mar 2016 **Set B**

Q 1 Answer the following in short **(5Q x 1M= 5M)**

A. What is the largest positive value one can represent with a 7-bit 2's complement number? Write your result in binary and decimal.
B. Give two examples of syntax error in C programming language
C. What are non-executable statements in C? Give one example for the same.
D. Parenthesize the following expression to get the required result: 2+3+5/2.5*2+3=20
E. What is the greatest magnitude negative value one can represent with a 7-bit 2's complement number? Write your result in binary and decimal.

Q 2 Answer the following **(4Qx 2.5M= 10M)**

1. Give the binary equivalent representation of the following sentence: int a; Hint: Use ASCII table.
2. Give 32 bit IEEE floating point representation of $(-222.25)_{10}$.
   Write a C Program to compute the following And display the sum of x and y. Example: If x=5.5 and y=4.5. The Following should be displayed: The sum of 5.5 and 4.5 is 10.00

$$x = \frac{bc}{(a - c)}$$

$$y = \frac{cd}{(a - c)}$$

3. Perform 1's complement arithmetic operation of the following.
   a. 1020-(-1017)
   b. -1017-(-1020)

3 Give a flow chart to read the value of the variable 'n' and sums all the even numbers between 1 and n (n inclusive) and then displays the sum. **Example:** If n= 20, The output should be 2+4+6+8+10+12+14+16+18+20 =110 **(5M)**

	000	001	010	011	100	101	110	111
0000	NULL	DLE		0	@	P	`	p
0001	SOH	DC1	!	1	A	Q	a	q
0010	STX	DC2	"	2	B	R	b	r
0011	ETX	DC3	#	3	C	S	c	s
0100	EDT	DC4	$	4	D	T	d	t
0101	ENQ	NAK	%	5	E	U	e	u
0110	ACK	SYN	&	6	F	V	f	v
0111	BEL	ETB	'	7	G	W	g	w
1000	BS	CAN	(	8	H	X	h	x
1001	HT	EM	)	9	I	Y	i	y
1010	LF	SUB	*	:	J	Z	j	z
1011	VT	ESC	+	;	K	[	k	{
1100	FF	FS	,	<	L	\	l	|
1101	CR	GS	-	=	M	]	m	}
1110	SO	RS		>	N	^	n	~

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 | Test 1 | Course: **COE A 102 Computer Programming** (Closed Book)

Max Marks: 20 | Max Time: 50 Min | Weightage: 10 % | 14 Mar 2016 | **Set C**

Q 1 Answer the following in short **(5Q x 1M= 5M)**

A. Observe the declarative statement in the C program.

```
int main()
{
int a,b;
float d;
char ch;
.....
.....
Return(0);
}
```

How many bytes of memory is allotted to this program?

B. Represent -8 in sign magnitude form using 5 bits. What will be this representation after sign extension to 8 bits.

C. Classify legal and illegal identifiers of C programming language:
num, Num, Num1, break , 1Num, _Num, num_1, num 1, $num, include.

D. Give binary and hexadecimal equivalent number of $(45)_{10}$

E. Observe the declarative statement in the C program.

```
int main()
{
float a=5,b=45.6 ,c,d;
char ch='b';
.....
.....
Return(0);
}
```

How many bytes of memory is allotted to this program?

Q 2 Answer the following **(4Qx 2.5M= 10M)**

1. Using 16 bits, what is the range of signed integers that can be represented in each of the following cases
   a) Sign magnitude form
   b) 1's complement form and
   c) 2's complement form

2. Write a C program to compute the following expressions and display the output as given in the format.
   result1 $=((n/m)*n)^m$
   result2=n+m/(n-m)
   result=result1+result2
   Follow the format to display the output.
   if result1=36 and result2=4.5.
   Your program should display the final output as follows.
   The sum of 36 and 4.5= 40.5.

Hint:
pow(a,b)is a pre-defined functions in C language.

Example
pow(2,3)= 2^3=8

3. Two numbers A = -126 and B = -128 have to be represented in sign magnitude form using 8 bits. Which one of them can be represented and which cannot be represented? Give suitable justification in each case.

4. Draw a flow chart to check whether a given number is even or odd.

Q No 3 Represent -19.75 in 32 bit IEEE floating point format. Explain the steps in detail. **(5 Marks)**

PRESIDENCY UNIVERSITY
Second Semester 2015-2016

COE A 102 Computer Programming **Comprehensive Lab Exam Date:16.05.2016**
Weightage: 20% Max. Marks: 40 **Duration: 2Hrs Section: 1 Set : A**

---

1. Write a program to read the age of three students namely age1, age2 and age3. The program should also find the greatest age using a suitable if statement and print the greatest age.
   Input : 23 45 15
   Output : 45

2. Write a program to read an integer array of 10 elements. The program should also print the square of each element in the array.
   Input : 1 4 3 2 5 6 8 7 9 10
   Output : 1 16 9 4 25 36 64 49 81 100

PRESIDENCY UNIVERSITY
Second Semester 2015-2016

COE A 102 Computer Programming **Comprehensive Lab Exam Date:16.05.2016**
Weightage : 20% Max. Marks : 40 **Duration: 2Hrs Section : 1 Set : B**

---

1. Write a program to find the factorial of a given number, n.
   Input : 5
   Output : 120

2. Write a program to read an integer array of 10 elements. The program should also print the array in reverse order.

   Input

Array Index	0	1	2	3	4	5	6	7	8	9
Array Element	12	13	14	15	16	17	18	19	20	21

   Output : 21 20 19 18 17 16 15 14 13 12

****

PRESIDENCY UNIVERSITY
Second Semester 2015-2016

COE A 102 Computer Programming **Comprehensive Lab Exam** **Date: 19.05.2016**
Weightage: 20% **Max. Marks: 40** **Duration: 2Hrs** **Section: 2** **Set : A**

---

1. Write a program to read a number 'n' and print its square if it is even, else print its cube if it is odd.
   Input : n = 4 Output : 16
   Input : n= 5 Output : 125

2. Write a program to read an integer array of 10 elements which has positive numbers, negative numbers and zeros. The program should find and print the number of positive numbers, number of negative numbers and number of zeros in the array.

   Input

Array Index	0	1	2	3	4	5	6	7	8	9
Array Element	12	-14	17	0	-2	-9	0	19	-20	-21

   Output : No. of negatives : 5
   No. of positives : 3
   No. of zeros : 2

PRESIDENCY UNIVERSITY
Second Semester 2015-2016

COE A 102 Computer Programming **Comprehensive Lab Exam** **Date: 19.05.2016**
Weightage : 20% **Max. Marks : 40** **Duration: 2Hrs** **Section : 2** **Set : B**

---

3. Write a program to read the names of two students and checks whether they are equal or unequal.
   Input : ASHIK ASHIKA Output : Strings are unequal
   Input: KAUSHIK KAUSHIK Output: Strings are equal

4. Write a program to read an integer array of 10 elements and computes the sum of all the elements at even positions of the array.
   Input : 1 4 3 2 5 6 8 7 9 10
   Output : Sum = 4 + 2 + 6 + 7 + 10 = 29

****

ID:	Name:	Section: 03 18/05/2016	SET-A 1:30 to 3:30

Q1. WAP to read 5 numbers. Multiply the number by 5 if the number is greater than zero, add 5 to the number if the number is less than zero, and print "ZERO" if the number is zero.

Example:

Number read by you	Operation	Result
4	4*5	20
-4	-4+5	-1
-6	-6+5	-2
20	20*5	100
0	Display	ZERO

Q2. WAP to read an array of n number, sum all the numbers in the range 10 to 20.

Example:

Index	0	1	2	3	4	5	6	7	8
A	13	22	45	18	98	15	13	34	11

Your program should print: 13+18+15 +13+11= 70.

Your program should print:

"No number in the range" if it finds no number in the range 10 to 20.

ID:	Name:	Section: 03 18/05/2016	SET-B 1:30 to 3:30

Q1. WAP to read 5 numbers, Multiply the number by 5 if the number is in the range 1-10 and print "GREATER" if the number is greater than 10.

Example:

Number read by you	Operation	Result
14	Display	GREATER
4	4*5	20
16	Display	GREATER
9	9*5	45
6	6*5	30

Q2. WAP to create a character array say A[10]. Copy all characters which are not vowels to another array say B[10].

Example:

Index	0	1	2	3	4	5	6	7	8
A	c	i	b	z	a	E	m	j	u

Your program should create a new array B as follows:

Index	0	1	2	3	4
B	c	b	z	M	j

ID:	Name:	Section:	SET-A

Q1. WAP to display the following till n numbers:
If number n=5:
1*1=1
2*2*2=8
3*3= 9
4*4*4= 64
5*5=25

Q2. WAP to declare an integer array of size 10, Read 10 numbers, display the position if the number is even.
Example:

Index	0	1	2	3	4	5	6	7	8	9
A	21	13	44	32	56	11	91	82	73	19

Your program should display: position 2,3,4,7 contain even number.

ID:	Name:	Section:	SET-B

Q1. WAP to display the following till n numbers:
Example: if n=5, your program should display.
1*1=1
2+2=4
3*3=9
4+4=8
5*5=25

Q2. WAP to declare the character array of size 10, Read 10 characters, display the position if the character is a vowel.
Example:

Index	0	1	2	3	4	5	6	7	8	9
A	c	d	b	e	n	a	p	i	m	k

Your program should display: position 3,5, 7 contain vowels.

ID:	Name:	Section:	SET-A

Q1. Write a C program to read a character ***"CH"*** and to print the text as follows:

Charater value in *"CH"*	Text to be printed
I	Thank you for using Internet Explorer
M	Thank you for using Mozila Firefox
C	Thank you for using Chrome

Q2. Write a C Program to read the array ***"AR"*** and to find the value of each element in the array ***"Result"*** as sum of index position and value in the index position of the array ***"AR":***

Example:

Index (i)	0	1	2	3	4	5	6	7	8	9
Array Element ***AR[i]***	13	3	112	15	17	4	107	11	100	88
Array Element ***Result[i]***	13	4	114	18	21	9	113	18	108	97

ID:	Name:	Section:	SET-B

Q1. Write a C program to read two values m and n. The program should also print the value

m-n ,if m is greater than n.
n-m ,if n is greater than m.
0 ,if m is equal to n.

Example:
If m=2 and n=3
Output:
1

Q2. Write a C Program to read the array ***"Input"*** and print the values as follows:
If ***"Input"*** array element is even, print the integer value 0.
If ***"Input"*** array element is odd, print the integer value 1.

Example:

Index	0	1	2	3	4	5	6	7	8	9
"Input" Array Element	13	3	112	15	17	4	107	11	100	88

Output is: **1 1 0 1 1 0 1 1 0 0**

ID:	Name:	Section:	SET-C

Q1. Write a C program to read a character ***"C"*** and to print the text as follows:

Charater value in *"C"*	Text to be printed
M	Welcome to Mac OS
W	Welcome to Windows OS
L	Welcome to Linux OS

Q2. Write a C Program to read the array ***"Years"*** and to print the values as follows:

If ***Years*** element is leap year, print the integer value 29. Otherwise, print the integer value 28.

Example:

Index	0	1	2	3	4	5	6	7	8	9
Array Element ***Years***	1996	2000	2001	2016	2017	2018	2020	2101	2102	2400

OUTPUT : 29 29 28 29 28 28 29 28 28 29

SET A:	ID NO:	Section No:	

Que 1: Take 2 numbers as input. If first number is greater than the second one, multiply the first number by their difference. If second number is greater than the first one, then divide the second number by their difference. Print these modified values of and b.

Ex1: If a = 13, b = 19 then b = 19 / (19-13) = 6.33Ex2: If a = 20 and b = 10 then a will become 20*(20-10) = 200

Que 2: Assuming maximum size of the string to be 100, take an input string from the user. If the length of this string is greater than 10 print its 10th character, otherwise display the message that string length is less than 10.

Ex1: If user input is "PresidencyUniversity" then your program should display the 10th character y. Ex2: If the user input is "COEA102" then your program should display that string length is less than 10.

SET B:	ID NO:	Section No:	

Que 1: Assuming maximum size of the string to be 100, take an input string from the user. Now print all the odd position character in this string.

Ex1: If user input is "PUBengaluru" then your program should display the characters at 1,3,5,7, and 9 that are U, e, g, l, r.

Que 2: Your program should display the number of days in a month. User inputs the month number from 1 to 12. Assume February contains 28 days.

Ex1: If user input 4 then your program should print "The month of April has 30 days" If user input is 8 then your program should print "The Month August has 31 days"

SET C:	ID NO:	Section No:	

Que 1: **Take 2 numbers** as input. If **first number is greater** than the second one, **divide** the first number by their difference. **If second number is greater** than the first one, then **multiply** the second number by their difference**. Print** these modified values of and b.

Ex1: If a = 9, b = 19 then b = 19*(19-9) = 190

Ex2: If a = 20 and b = 10 then a = 20 / (20-10) = 2

Que 2: Assuming maximum size of the string to be 100, **take an input string** from the user. If the **length** of this string is greater than 10 print its 6th character, otherwise display the message that string length is less than 10.

Ex1: If user input is "PresidencyUniversity" then your program should display the 10th character **d**.

Ex2: If the user input is "COEA102" then your program should display that string length is less than 10.

********ALL THE BEST*******

ID:	Name:	Section:	SET-A

Q1. Write a C program to find the cube of absolute number of a given number.

Example:
If the given input number is -5 (negative),Absolute number of a given number is: 5
Cube: 5^3=125
If the given input number is 5 (positive), Absolute number of a given number is: 5
Cube: 5^3=125

Q2. Write a C Program to rotate the elements in the array "marks" by 1 position.

Example: Original "*marks*" Array Element

index	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
marks	13	23	12	15	7	4	17	1	10	18

Finall "*marks*" Array Element

index	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
marks	18	13	23	12	15	7	4	17	1	10

ID:	Name:	Section:	SET-B

Q1. Write a C program to check whether the given number is negative, positive or zero. The program should also print the text as per the following table:

Number	**Text**
Positive	String1 is greater than String2
Negative	String1 is less than String2
Zero	String1 is equal to String2

Q2. Write a C Program to display the sum of all the elements in the array.

Example:

Index	0	1	2	3	4	5	6	7	8	9
Original Array Element	13	3	112	15	17	4	107	11	100	88

Sum = 470

ID No:	Section:	SET A

Que 1: At Presidency University, a student is issued Hall-Ticket when his/her dues are clear.
For this, write a C program which takes input for 3 types of dues(Hostel dues, Accounts, and Library dues). If there are any pending dues, then display the message that **Hall-Ticket can not be issued**, otherwise display the message that **Hall-Ticket can be issued.**

Sample input/output: (Input is in bold)

Enter the dues details for the student:

Hostel dues - **1000**
Accounts - **0**
Library Dues - **0**

Hall-Ticket can not be issued.

Que 2: There are two series to be generated, Fibonacci series and series of even nos. User inputs the number n(maximum 50) which is the number of terms in the series. Your program should make a new series by adding the corresponding terms in these two series.

Sample input/output: (Input is in bold)

Enter the number of terms to be generated: 5

Series of odd series:	0	1	1	2	3
Series of even numbers:	2	4	6	8	10
The new series:	2	5	7	10	13

ID No:	Section:	SET B

Que 1: There are two array having n integers, where n is input(maximum 50) given by the user. Your program should create a new array by using the following logic:
if element of the first array is **even**, generate the term for the new array by **adding** the corresponding terms.
if element of the first array is **odd**, generate the term for the new array by **multiplying** the corresponding terms.

Sample:

For n=5:

4	6	7	10	9

a

b

2	3	4	2	6

c

6	9	28	12	54

Que 2: At Presidency University, a student is given ERP access when all the details(for this exercise, 5 types) are provided by the user. write a C program which asks the user whether user has given the details for these **5 types**(Given below in the sample input/output). If all the details are present, display the message that **ERP access can be provided,** otherwise display the message that **ERP access can not be provided**

Sample input/output: (Input is in bold)

Enter the details regarding ERP details of the student:

Did student give scanned copy of photograph? **y**
Did student give blood group detail? **y**
Did student give parents contact details? **y**

Did student provide permanent address? **y**
Did student give emergency contact details? **y**

ERP access can be provided

Set A	ID No:	Section No:	

Que 1: Take two numbers a and b as input and **print the multiplication table** for number a, b times.

Example:

a = 6, b =7
6*1 = 6
6*2 = 12
6*3 = 18
6*4 = 24
6*5 = 30
6*6 = 36
6*7 = 42

2	4	7	19	21	2	1	11	5	6
Sum of all even dos: 2+4+2+6 = 14									
Sum of all odd dos: 7+19+21+1+11+5 = 64									

Que 2: Take 10 number in an array. You have the display the sum of all even numbers and sum of all odd numbers.

******ALL THE BEST******

Set B	ID No:	Section No:	

Que 1: Take two number a and b as input and **print all the even and odd numbers** from a to b(both inclusive). Also **display the count** of even and odd numbers.

a = 10 b =20
Even No: 10 12 14 16 18 20
Odd No: 11 13 15 17 19
Count of Even Nos: 6
Count of Odd Nos: 5

5	4	15	20	21	12	1	11	5	6
Numbers divisible by 5: 5	15	20	Their sum = 5+15+20 = 40						
Numbers divisible by 6: 5	12	6	Their sum = 6+12 = 18						

Que 2: Take 10 number in an array. Find out the numbers which are divisible by 5 and 6 and display them. Also sum all these numbers and display their sum.

******ALL THE BEST******

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Test 2 Course: **COE A 102 Computer Programming**
(Open Book)

Max Marks: 20 Max Time: 50 Min Weightage: 10 % 25th April 2016 **Set A**

---

1. Assuming each integer takes 2 bytes, find the memory size of the array 'marks' in the following declaration?

   int marks[2][3][5][2]; **1 mark**

2. What is the output of the following code?

```
int x=0;
switch(x)
{
    case 1: printf( "One" );
    case 0: printf( "Zero" );
    case 2: printf( "Hello World" );
    }
```

1 mark

3. What are the values of m and n after execution of these three statements?

```
j = 5;
k = 2;

m = j - - + k - -;
n = j - ++k;
```

1 mark

4. How many comparisons are done by the linear search program to find the key 44 in the given array? **1 mark**

11	55	33	22	12	45	44	56	26	32

5. Show the contents of the following array in each step of first three iterations to sort the array into ascending order using bubble sort. **3 marks**

100	14	125	16	670	34

6. The Income Tax Slabs for Financial Year 2016-17 below 60 years of age is : **3 marks**

   Total Income <= 2,50,000 .....Nil

   >2,50,000 Total income <= 5,00,000 ..... 10% of the amount by which it exceeds 2,50,000

   > 5,00, 000 Total income <= 10,00,000 ..... 20% of the amount by which it exceeds 5,00,000

   Total income >10,00,000 ..... 30% of the amount by which it exceeds 10,00,000

   Write a C program based on the user input of total income, calculate the income tax to be paid by the user.

   Sample input: 400000

Sample output: Tax to paid = 15000.0
(Hint: 20% of (400000 - 250000) = 15000)

Sample input: 10000
Sample output: Tax to be paid = 0.0

3 marks

7. Convert the following for loops to while loops.

```
for ( i = 0; i < 10; ++i )
{
        for ( j = 0; j < 10; ++j )
        {
            if (a[i] == b[j])
            {
            a[j] = b[j];
             n= n+1;
            }
        }
}
```

8. Write a C program to print encoded marks of 5 students in an array A[]. This program should also print the decoded marks from the encoded marks.
Encoded marks will be computed as follows:
If the mark is even number, encoded marks will be mark/2. If the mark is odd number, encoded mark will be mark+2.
Decoded marks from the encoded marks will be computed as follows:
If the encoded mark is even number, decoded marks will be encoded mark*2. If the encoded mark is odd number, decoded marks will be encoded mark-2.
Example:

Array A[]:

Index	0	1	2	3	4
A	99	88	21	56	100

Encoded marks will be:

Index	0	1	2	3	4
A	101	44	23	28	50
	99+2	88/2	21+2	56/2	100/2

Decoded marks from encoded marks will be:

Index	0	1	2	3	4
A	99	88	21	56	100
	101-2	44*2	23-2	28*2	50*2

7 marks

****

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Test 2 Course: **COE A 102 Computer Programming**
(Open Book)

Max Marks: 20 Max Time: 50 Min Weightage: 10 % 25th April 2016 **Set B**

---

1. What is the difference between the following two statements:
   (i) int a3;
   (ii) int a[3];
   1 mark
2. Write the differences between while and do while looping statements with an example. **1 mark**
3. What is the output of the following program **1 mark**

```
int main()
{
   int i, j;
for(i=1;i<3;i=i+1)
 for(j=1;j<3;j=j+1)
 if(j<i) printf("Presidency University\n");
 else  printf("Bangalore University\n");
 printf("Presidency University");
        return 0;
}
```

4. Identify any 5 errors in the following program **1 mark**

```
1: int main()
2: {
3:  int i,j,2sum,m;
4:  scanf("%d",n);
5:  for(i=1;i<n;i=i+1);
6:  {
7:    if(i=3) break;
8:    else print(" sum=%d",2sum+i);
9:    retrun(0);
10: }
```

5. Show the value of First, Last and Mid in all the iteration performed by the binary search program to find the key 33 in the following array. **3 marks**

0	1	2	3	4	5	6	7	8	9	10	11
21	25	28	30	33	35	38	40	42	44	46	48

First Last

Give the value of First, Last and mid in each iteration.

Example

Iteration 1
First =0
Last =11
Mid = (0+11)/2=5

6. Complete the following C program to print the following pattern:

```
11111
10001
10001
10001
11111
```

```
#include<stdio.h>
int main()
{
 int i, j;

 for(i=1;i<=5;i++)
  { for(j=1;j<=5;j++)
   {
      // Write your code here
    }
   printf("\n");
  }
}
```

3 marks

7. Modify the following program so that if else construct is replaced by switch-case.

```
if (n >= 1 && n <= 3)
    printf("You picked a small number.\n");
  else if (n >= 4 && n <= 6)
    printf("You picked a medium number.\n");
  else if (n >= 7 && n <= 10)
    printf("You picked a big number.\n");
  else
    printf("You picked an invalid number.\n");
```

3 marks

8. Write a C program to reverse an array (without using another array). Assuming the maximum size of the array is 100, take following input values from user.
size n of the array, array elements.

7 marks

For example if a is an array of integers with three elements such that
a[0] = 1
a[1] = 2
a[2] = 3
Then on reversing, the array will be
a[0] = 3
a[1] = 2
a[2] = 1

****

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 | Test 2 (mu) | Course: **COE A 102 Computer Programming** (Open Book)

Max Marks: 20 | Max Time: 50 Min | Weightage: 10 % | 25th April 2016 | **Set C**

1. What is the number of comparisons done by the linear search algorithm, when the element being searched is the last element of an array of size 'n'. **1 mark**
2. Write the output of the following programme.

```
#include <stdio.h>
 int main()
 {   int ch =1;

     switch (ch)
     {
        case 1:
              printf("The number is 1\n");
         default:
              printf("The number is 2\n");
     }
 }
```

1 mark

3. What is the output of the following code?

```
#include<stdio.h>
int main(){
int a=1,b=3,c=3;
a=b==c;
printf("a=%d",a);
 }
```

1 mark

4. Write two comments on the output of the following program

```
int main(void) {
int i,a[10];
for(i=0;i<5;i=i+1)
scanf("%d",&a[i]);
for(i=0;i<12;i=i+1)
printf("%d\n",a[i]);
return(0);
}
```

1 mark

5. According to a study, the approximate level of intelligence of a person can be calculated using the following formula:

i = 2 +(y +0.5x)

Write a program which will produce a table of values i, y and x where y varies from 1 to 6, and, for each value of y, x varies from 5.5 to 12.5 in steps of 0.5. **3 marks**

6. Show all the iterations performed by the bubble sort program to sort the following array into ascending order. **3 marks**

55	11	33	22	2

Fill the array at the end of each iteration.

7. Consider the partial C Program with the initial values x = 25, i = 10, j = 8, z = 18, k = 3

```
if(x == 25)  //First if
if( i> j)    /Second if
if( k > 5)   // Third if
z = k;
else         // First else
z = 20;
else
z=30;    //Second else
printf(" The value of z  is %d" , z);
```

3 marks

The program is misleading or creating confusion. Apply proper curly braces to avoid confusion and the program should print 20.

8. Write a C program to add two 8-bits binary numbers. Array A[] contains the 8-bits of the first number, with A[0] having least significant bit and A[7] having the most significant bit. Correspondingly, Array B[] contains the 8-bits of the second number, with B[0] having least significant bit and B[7] having the most significant bit. The result of addition has to be stored in the third array Result[],with Result[0] having least significant bit and Result[7] having the most significant bit. [***Note:*** Please consider the bits in the index position ranges from 0 to 7 alone in the array Result[], if number of bits is exceeding 8-bits] **7 marks**

Example

Array A[8] is

index	0	1	2	3	4	5	6	7
binary value	0	1	1	1	0	1	0	0

Array B[8] is

index	0	1	2	3	4	5	6	7
binary value	0	0	1	1	1	1	1	0

Array Result[8] is

index	0	1	2	3	4	5	6	7
binary value	0	1	0	1	0	1	0	1

Hint:

Binary addition follows the table given below:

A[i]	B[i]	Carry (in)	Result[i]	Carry (out)
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
1	0	0	1	0
1	0	1	0	1
0	1	1	0	1
1	1	1	1	1
1	1	0	0	1

****

ID No	_____	Section_____	Signature of Invigilator

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Quiz 1 Course: **COE A 102 Computer Programming**
(Closed Book)

Max Marks: 10 Max Time: 30 Min Weightage: 5 % Date 3rd May 2016 **Set A**

Instructions to Candidates

1. Write legibly with pen only and do not over write. Write ID No, Section No in the designated place
2. Answer the questions in the question paper itself, no extra answer book shall be provided.

Q. No.	Question (One Mark Each)	Answer
1.	Which of the following special symbol is allowed in an identifier? A) * (Asteric) B) _ (Underscore) C) – (hyphen) D) | (Pipe)	
2.	Which of the following is the correct order of evaluation for the below expression? z = x + y * z / 4 % 2 - 1 A. * / % + - = B. = * / % + - C. / * % - + = D. * % / - + =	
3.	The _____ function should be present in every C program.	

4.	Find the output of
	#include<stdio.h>
	int main()
	{
	int a[ ] = {1,1,2,3,3,4,6,6,1};
	int n=9,i;
	for (i=0;i<n-1;i++)
	if (a[i] == a[i+1])
	printf("%d\t",i);
	return 0;
	}	

5.	Consider the following program fragment
	for(digit = 0;digit < 9; digit++)
	{
	digit = digit *2;
	digit--;
	}
	How many times the loop will be executed?
	
	A. Infinite B. 9 C. 4 D. 0	

6.	What will be the output of the following program?
	#include<stdio.h>
	int main(){
	int result,val1=5,val2=5;
	result=val1==val2;
	printf("%d",result);
	}
	A. 1 B. 0 C. 3 D. compiler error	

ID No	_____	Section_____	Signature of Invigilator

7.	What is the output of the following program?
	int main()
	{
	int a, b, c, d;
	a = 4;
	b = 12;
	c = 37;
	d = 51;
	if (a < b)
	printf("a < b");
	if (a > b)
	printf("a > b");
	if (d <= c)
	printf("d <= c");
	if (c != d)
	printf("c != d");
	return(0);
	}	

8.	Find the output of
	#include<stdio.h>
	int main()
	{
	int check=2;
	switch(check)
	{
	case 1: printf("Berry");
	case 2: printf("Cherry");
	case 3: printf("Blueberry");
	default: printf("Strawberry");
	return 0;
	}	

9.	Choose the correct statement A) 1 represent a false condition B) Non zero value represent a false condition C) 0 represent a false condition D) Anything that is not 1, represents a false condition	

10.	What is the output of the following program?
	void main()
	{
	int x=5;
	if(i=0)
	printf(" = am in Zero");
	else
	printf(" = am in :ero")
	}
	A) =am in:ero B) =am in Zero C) error D) None of the above	

ID No	_____	Section_____	Signature of Invigilator

Presidency University, Bengaluru
School of Engineering

II Semester 2015-2016 Quiz 1 Course: **COE A 102 Computer Programming**
(Closed Book)

Max Marks: 10 Max Time: 30 Min Weightage: 5 % Date 3rd May 2016 **Set B**

Instructions to Candidates

1. Write legibly with pen only and do not over write. Write ID No, Section No in the designated place
2. Answer the questions in the question paper itself, no extra answer book shall be provided.

Q. No.	Question (One Mark Each)	Answer
1.	The _____operator gives the reminder of dividing two integers	
2.	The process of converting an operand to a desired data type is known as _____ a)type declaration b)type casting c)type conversion	

3.	Find the output of
	#include<stdio.h>
	int main()
	{
	int i=1;
	i=2+2*i++;
	printf("%d",i);
	return 0;
	}	

4.	The output of the following program is _____
	int main(void) {
	int a, b, c, d, result;
	a = 4;
	b = 12; c = 37;
	d = 51;
	result = d % a * c + a % b + a;
	printf("%d",result);
	return 0;
	}	

5.	What is the output of the following Program?
	#include<stdio.h>
	main()
	{
	char suit=3;
	switch(suit)
	{
	case 1:
	printf("Quiz-1");
	case 2:
	printf("Quiz-2");
	default:
	printf("ALL Quiz");
	}
	}
	Quiz-1 B. Quiz-2 C. ALL Quiz D. All of these	

ID No	_____	Section_____	Signature of Invigilator

6.	What is the output of the following Program?
	#include<stdio.h>
	main()
	{
	int a[3] = {2,1};
	printf("%d", a[a[1]]);
	}
	A) 0 B) 1 C) 2 D) 3	

7.	What is the output of the following Program?
	#include<stdio.h>
	main()
	{
	int x;
	float y;
	y = x = 7.5;
	printf("%d %f", x, y);
	}
	
	A) 7 7.000000 B) 7 7.500000 C) 5 7.500000 D) 5 5.000000	

8.	What is the output of the following error free code
	int main()
	{
	int i, j;
	for(i=1;i<=3;i++)
	{
	j = 0;
	while(j<=i){
	printf("%d\t%d\n",i,j);
	j++; }
	}
	return 0;
	}	

9.	The _____ data type occupies 1 byte of memory space. a)int b)float c) char	

10.	The output of the following program is _____
	int main(void) {
	int a[4]= {5,6,7,8};
	printf(" %d %d",a[0],a[4]);
	return 0;
	}	

ID NO	_____	Section _____

Set 1

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	printf() and scanf() library function are declared and related macros are defined in _____ header file.	
2	Which is the correct way to declare a string i) char string[20] = { 'f' , 'r' , 'e' , 's' , 'h' , '\0'}; ii) char string[20] = "fresh"; iii) char string [] = "fresh"; a) i b) ii c) iii d) all the above	

3	What is the output of the following program?
	int main()
	{
	int arr[] = {1, 2, 3, 4, 5, 6, 7, 8};
	float n;
	n = sizeof(arr)/sizeof(arr[0]);
	printf(" %f\n",n);
	return 0;
	}	

4	What will be output if you compile and execute the following c code?
	void main(){
	int i=4,x;
	x=++i + ++i + ++i;
	printf("%d",x);
	}	

5	What is the output of the following program?
	int pH=14;
	if (pH<7)
	printf("Acidic\n");
	if (pH<2)
	printf("Very Acidic\n");
	else
	printf("Alkaline\n");
	if (pH>12)
	printf("Very Alkaline\n");
	else if (pH%7==0)
	printf("Neutral\n");	

Set 2

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	The strings in C programming language will end with _____	
2	When an argument is passed-by-value, changes in the called function _____ affect the original variable's value; when an argument is passed call-by-reference, changes in the called function _____ affect the original variable's value. a. Do not, do. b. Do not, do not. c. Do, do. d. Do, do not.	

3	What is the output of the following program?
	main()
	{
	int n = 0, m = 0;
	if (n > 0)
	if (m > 0)
	printf("True");
	else
	printf("False");
	}	

4	What is the output of the following program?
	int i=1;
	int j=3;
	int k=4;
	
	printf("%d",i-j*5/k%2);	

5	What is the output of the following program?
	
	int pH=0;
	if (pH<7)
	printf("Acidic\n");
	if (pH<2)
	printf("Very Acidic\n");
	else
	printf("Alkaline\n");
	if (pH>12)
	printf("Very Alkaline\n");
	else if (pH%7==0)
	printf("Neutral\n");	

Set 3

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	The function which a combine one string with another string is a) stringadd() b) stringcat() c) append( ) d) none of the above	

2	What is the output of the following program?
	int main(void) {
	char str1[] = "ABCY";
	char str2[]="ABCZ";
	int result;
	result = strcmp(str1,str2);
	printf("%d\n",result);
	return 0;
	}	

3	In C, 1D array of int can be defined as follows and both are correct. int array1D[4] = {1,2,3,4}; int array1D[] = {1,2,3,4}; But given the following definitions (along-with initialization) of 2D arrays i. int array2D[2][4] = {1,2,3,4,5,6,7,8}; ii. int array2D[][4] = {1,2,3,4,5,6,7,8}; iii. int array2D[2][] = {1,2,3,4,5,6,7,8}; iv. int array2D[][] = {1,2,3,4,5,6,7,8}; a) only i is correct b) i & ii is correct c) only iv is correct d) all are correct	

4	What will be output if you will compile and execute the following c code?
	void main(){
	int i=4,x;
	x=++i + ++i + ++i;
	printf("%d",x);
	}	

5	What is the output of the following program?
	
	for (i = 1 ; i <= 5 ; i++)
	{
	for (j = i ; j > 0 ; j--)
	printf(" ");
	printf("*");
	printf("\n");
	}	

A	B	C	D
*	*	*	*****
*	*	*	
*	*	*	
*	*	*	
*	*	*	

ID NO	_____	Section _____

Sec 4

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What is the output of the following program?
	int main()
	{
	int i;
	int arr[5] = {1};
	for (i = 0; i < 5; i++)
	printf("%d ", arr[i]);
	return 0;
	}	

2	Unless otherwise specified, entire arrays are passed _____ and individual array elements are passed _____. a. By value, by reference. b. By reference, by value. c. By value, by value. d. By reference, by reference.	

3	What is the output of the following program?
	i=1;
	if ((i==1) && (i=2))
	i=i+1;
	printf("i=%d",i);	

4	What is the output of the following program?
	main()
	{
	int n = 0, m = 0;
	if (n > 0)
	if (m > 0)
	printf("True");
	else
	printf("False");
	}	

5	What is the output of the following program?
	int main(void) {
	int i = 5;
	char number='A';
	switch(number)
	{
	default:
	i = 2 * i;
	case '1':
	case '2':
	i = 3 * i;
	case '3':
	case '4':
	i = 4 * i;
	break;
	}
	printf("%d",i);
	
	return 0;
	}	

ID NO	_____	Section _____

Sec 5

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What is the output of the following program?
	void main(){
	int i=0;
	for(;i<=2;)
	printf(" %d",++i);
	}	

2	Which of the following while statements is equivalent to
	x=0;
	do{
	y=x+7;
	x++;
	}while(x<=9);	

	A.
	x=0;
	y=x+7;
	x++;
	while(x<9){
	y=x+7;
	x++;
	}
		B.
		x=0;
		while(x<9){
		y=x+7;
		x++;
		}
		y=x+7;
		x++;

		C.
		x=0;
		while(x<=9){
		y=x+7;
		x++;
		}

3	Correct the following program
	int main()
	{
	char s[]="hello", t[]="hello";
	
	if(s==t){
	printf("eqaul strings");
	}
	}	

4	The function prototype double mySqrt(int x); a. Declares a function called mySqrt which takes an integer as an argument and returns a double. b. Defines a function called double which calculates square roots. c. Defines a function called mySqrt which takes an argument of type x and returns a double. d. Declares a function called mySqrt which takes a double as an argument and returns an integer.	
5	Which of the following **for** statement is / are valid?	

A	**B**	**C**	**D**	**E**	**F**
for(i=0;i!=n;i=i+1)	for(; ;i=i+1)	for(; ;)	for(;i!=n;)	A, B	All

Set 6

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	Consider the condition (4 > y > 1) Write the C equivalent expression.	
2	The OR (||) operator: a. Has higher precedence than the AND (&&) operator. b. Stops evaluation upon finding one condition to be true. c. Associates from right to left. d. Is a ternary operator.	

3	What is the output of the following program?
	int main()
	{
	float f = 0.1;
	if (f == 0.1)
	printf("True");
	else
	printf("False");
	}	

4	What is the output of the following program?
	main()
	{
	char *p = "Presidency-University";
	p[10] = 'a';
	p[15] = 'b';
	printf("%s", p);
	}	

5	How many times the "In the Loop" is printed
	
	int main(void) {
	int a=6,b=12;
	while(a<b)
	{
	printf(" In the Loop");
	a+=2;
	b-=2;
	}
	return 0;
	}	

Set 7

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

S.NO.	QUESTION	ANSWER

1	Predict the output or error(s) for the following:
	
	int i=-1,j=-1,k=0,l=2,m;
	m=i++&&j++&&k++||l++;
	printf("%d %d %d %d %d",i,j,k,l,m);	

2	Predict the output or error(s) for the following:
	
	int c=- -2;
	printf("c=%d",c);	

3	Predict the output or error(s) for the following:
	
	int i=1,j=2;
	switch(i)
	{
	case 1: printf("GOOD");
	break;
	case j: printf("BAD");
	break;
	}	

4	Predict the output or error(s) for the following:
	
	int i, n;
	char x[5] = "girl";
	n = strlen(x);
	printf("%d",n);	

5	What will be output if you will execute following c code?
	
	int main(){
	int a[]={10,20,30,40};
	int i=3,x;
	x=1*a[--i]+2*a[--i]+3*a[--i];
	printf("%d",x);
	return 0;
	}
	(A) 30 (B) 60 (C) 90 (D) 100	

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Set 8

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	Predict the output or error(s) for the following:
	
	int i=1,j=1,k=0,l=2,m;
	m=i++&&j++&&k++||l++;
	printf("%d %d %d %d %d",i,j,k,l,m);	

2	Predict the output or error(s) for the following:
	
	int i=10;
	i=!i>14;
	printf ("i=%d",i);	

3	Predict the output or error(s) for the following:
	main()
	{
	printf("%d", out);
	}	

4	Predict the output or error(s) for the following:
	#define FALSE 1
	#define TRUE -1
	#define NULL 0
	main() {
	if(NULL)
	puts("NULL");
	else if(FALSE)
	puts("TRUE");
	else
	puts("FALSE");
	}	

5	What will be output if you will execute following c code?
	
	int a[2][3]={0,1,2,3,4,5};
	int i=1;
	int d;
	d=a[0][++i];
	printf("%d",d);
	return 0;
	(A) 5 (B) 0 (C) 1 (D) 2	

Set 9

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	Predict the output or error(s) for the following:
	int i=-1,j=-1,k=0,l=2,m;
	m=i++||j++||k++&&l++;
	printf("%d %d %d %d %d",i,j,k,l,m);	

2	Predict the output or error(s) for the following:
	#define square(x) x*x
	int i;
	i = 64/square(4);
	printf("%d",i);	

3	Predict the output or error(s) for the following:
	main()
	{
	int i=-1;
	+i;
	printf("i = %d, +i = %d \n",i,+i);
	}	

4	Predict the output or error(s) for the following:
	main()
	{
	int k=1;
	printf("%d==1 is ""%s",k,k==1?"TRUE":"FALSE");
	}	

5	Predict the output or error(s) for the following:
	#include<stdio.h>
	int main(){
	int arr[]={6,12,18,24};
	int x=0;
	x=arr[1]+(arr[1]=2);
	printf("%d",x);
	return 0;
	}
	(A) 4 (B) 8 (C) 14 (D) Compilation error	

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Set 10

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What will be output if you execute following c code?
	int main(){
	int num,i=1;
	num=- ++i + -i;
	printf("%d",num);
	return 0;
	}
	(A) 0 (B) 1 (C) -2 (D) -4	

2	Predict the output or error(s) for the following:
	main()
	{
	char not;
	not=!2;
	printf("%d",not);
	}	

3	To find the max value between x and y : Choose only one answer:
	a) if (x > y) max = x; else max = y;
	b) max = y; if (x > y) max = x;
	c) both correct	

4	Suppose a,b,c are integer variables with values 5,6,7 respectively. What is the value of the expression: !((b+c)>(a+10)) (A) 1 (B) 6 (C) 15 (D) 0	

5	Consider the following program, How many times "PU.org" will get printed
	main ()
	{ int i, j;
	for (i=0, j=5; j >0, i < 10; i ++, j--) printf("PU.org");
	}
	(A) 5 (B) Compilation Error (C) 10 (D) 11	

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Set II

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What will be output if you will execute following c code?
	int num,a=5;
	num=-a--+ ++a;
	printf("%d %d",num,a);
	(A) -1 5 (B) -1 6 (C) 1 6 (D) 0 5	

2	What will be output when you will execute following code?
	if(!10>-10)
	printf("C");
	else
	printf("C++");
	(A) C (B) C++ (C) nothing display on screen (D) none of these	

3	What will be output when you will execute following code?
	int a=5;
	if(a=15)
	printf("welcome %d",a);
	else
	printf("hello %d",a);
	(A) welcome 5 (B) welcome 15 (C) hello 5 (D) hello 15	

4	How many times the below loop will get executed?
	int i;
	for(i=20, i=10; i<=20; i++)
	{
	printf("\n %d", i);
	}
	(A) 1 (B) Run time Error (C) 11 (D) Compilation Error	

5	What will be output when you will execute following c code? char arr[11]="The African Queen"; printf("%s", arr); (A) The African (B) The (C) African Queen (D) The African Queen	

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Set 12

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What is the output of following program?
	int a=10;
	a*=10+2;
	printf("%d",a);
	a) 102 b) 100 c) 120 d) 22	

2	What is the output of the following program?
	int i;
	i=0;
	if(i=55,0,10,0)
	printf("Test Skills %d",i);
	else
	printf("C Programing %d",i);
	
	(A) Test Skills 55 (B) C Programing 0 (C) Test Skills 0 (D) C Programing 55	

3	What will be output if you will execute following c code?
	int i;
	for(i=0;i<5;i++){
	int i=10;
	printf(" %d",i);
	i++; }
	(A) 10 11 12 13 14 (B) 10 10 10 10 10 (C) 0 1 2 3 4 (D) Compilation error	

4	What will be output if you execute following c code?
	int arr[3]={10,20,30};
	int x=0;
	x = ++arr[x] + x + arr[--x];
	printf("%d ",x);
	return 0;
	(A) 12 (B) 13 (C) 10 (D) 11	

5	What will be the output of the following code fragment?
	int i=10;
	if(i == 20 || 30)
	printf("True");
	else
	printf("False");
	
	(A) True (B) False (C) Syntax Error (D) Run time Error	

ID NO	_____	Section _____

Set B

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	Name any two keywords in C.	
2	List three standard data types in C.	
3	What can be the possible values of evaluating an expression with a relational operator?	

4	How many lines of asterisks are displayed by the loop given below
	
	for(i=0; i<10; i++)
	for(j=0; j<5; j++)
	printf("*********\n");	

5	What is the value of the string t1 after execution of these statements if the value of t2 is "Merry Christmas"? strncpy(t1,&t2[3],5); t1[5] = '\0';	

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Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 Quiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	Write any two valid identifiers in C.	
2	List three relational operators in C.	
3	What can be the data type of the expressions used in switch and case statements?	

4	What does the following loop display, if n = 345?
	do{
	printf("%d ", n %10);
	n = n/10;
	}while(n>0);	

5	Will the following function call return a positive or negative value? strcmp("Ziegler", "aardvark");	

Set 15

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Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 uiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	Write any two invalid identifiers in C.	
2	List all logical operators in C.	
3	What can be the data type of the expressions used in switch and case statements?	

4	What is the last value displayed by this for loop?
	
	for(i=0; i<7; i++){
	for(j=0; j<i; j++)
	printf("%d", i * j); }	

5	What will be f1 and f2 after the execution of the following piece of code?
	
	char f1[15] = "John ", f2[15] = "Jacqueline ",
	f3[15] = "Kennedy";
	strcat(f1,f3);
	strncat(f2, f3, 3);	

Set 16

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 uiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions

1	What is the output of the following statements?
	int i,arr[5];
	for(i=0; i<5; i++)
	{
	arr[i] = i * 2;
	printf("%d\n", arr[i]);
	}	

2	List any three unary operators in C.	
3	Which variables given below are syntactically correct? a)income b)two fold c)c3po d)int e)Tom's	

4	What value is assigned to fee by the if statement when speed is 75?
	if (speed > 35)
	fee = 20.0;
	else if (speed > 50)
	fee = 40.00;
	else if (speed > 75)
	fee = 60.00;	

5	Which one of the following wold call the function somefun() only if the strings a and b are equal? a) if (strcmp(a,b)) somefun(); b) if (strcmp(a,b) == 0) somefun(); c) if (a == b) somefun(); d) if (a[ ] == b[ ]) somefun();	

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Set 17

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 uiz II Course : COE A 102 Computer Programming

Sl num	Questions	Solutions
1	If a program is declared to have ten elements, must the program use all ten? (Yes/No)	

2	What is the output of the following:
	int x = 3,y = 5,z = 2;
	x = x * y + z;
	y = y / 2 * z + 1;
	z = z + x;
	printf("%d \n %d\n %d\n", x, y, z);
	}	

3	What data types are used to represent each one of the following? a) Number of children at school? b) A letter grade in an exam?	

4	If the initial value of x is 1, what is its final value after executing the following if statement?
	if (x >= 0)
	x = x + 1;
	if (x >= 1)
	x = x + 2;	

5	What is the output of the following:
	char line[20];
	int I;
	strcpy(line,"PresIdency");
	for (i=0; i<strlen(line); i++)
	if (isupper(line[i]))
	putchar(line[i]);	

Sct 18

ID NO	_____	Section _____

Presidency University, School of Engineering, Bengaluru

II Semester 2015-2016 uiz II Course : COE A 102 Computer Programming

1	What is the output of the following statements?
	int i,arr[5];
	for(i=0; i<5; i++)
	{
	arr[i] = i * 3;
	printf("%d\n", arr[i]);
	}	

2	If the value of n is 4 and m is 5, is the following expression valid/invalid? ++(n * m)	
3	What data types are used to represent each one of the following? a) Average score of a player in a cricket match b) Name of an International Air port	

4	If the initial value of x is 1, what is its final value after executing the following if statement?
	if (x >= 0)
	x = x + 1;
	else if (x >= 1)
	x = x + 2;	

5	What is the value of the following expression? isdigit(9)	