USN

RV COLLEGE OF ENGINEERING®
(An Autonomous Institution Affiliated to VTU)
III / IV Semester B. E. Fast Track Examinations July-19
BRIDGE COURSE C PROGRAMMING

Time: 03 Hours   *Maximum Marks: 100*
Instructions to candidates:
1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer FIVE full questions from Part B. In Part B question number 2, 7 and 8 are compulsory. Answer any one full question from 3 and 4 & one full question from 5 and 6.

PART A

1	1.1	Write the syntax for getchar( ).	01
	1.2	What is the size of a floating point type for a 64-bit machine?	01
	1.3	What is the output of the following program?	

```
#include < stdio.h >
main()
{
   int a = 0, b = 10;
   if (a = 0)
   {
      prinrf('true");
   }
   else
   {
    printf('false");
   }
}
```

			02
	1.4	What is the output of the code below when 1 is entered as a choice?	

```
#include < stdio.h >
main( )
  {
  int ch;
  printf("enter a value between 1 to 2:");
  scanf("%d", &ch);
  switch(ch)
  {
    case 1:
        printf("1");
    default:
        printf("2");
  }
}
```

			02

	1.5	What is the output of the following program?
		`#include < stdio.h >`
		`int main()`
		`{`
		  `int a = 10, b = 10;`
		  `if (a = 5)`
		  `b − −;`
		  `printf("%d, %d", a, b − −);`
		
		`}`
			02

	1.6	Differentiate between structures and union.	02
	1.7	What is a pointer in C? Given examples.	02
	1.8	Differentiate between exit and entry control loops.	02
	1.9	Justify the need for user defined functions in C.	02
	1.10	Write any two file operations in C and their syntax.	02
	1.11	What does the format %10.2 mean, when included in printf statement?	01
	1.12	In the standard library of C programming language, whether header file is designed for string handling operations?	01

PART B

2	a	Illustrate the use of typedef and enum in C with examples.	04
	b	Explain the basic structure of a C program with an example.	06
	c	Draw flowchart to determine and output whether number N is even or odd.	06
3	a	Write a C program to find factorial value of a given integer number.	08
	b	Explain unconditional branching statements with examples.	04
	c	Evaluate the following expressions and the values of $a = 9, b = 12, c = 3$. i) $\quad x = a − b/3 + c * 2 − 1$ ii) $\quad z = a − (b/(3 + c) * 2) − 1$	04
		OR	
4	a	Write a C program to print the following output using for loops. 1 2 2 3 3 3 4 4 4 4 5 5 5 5 5	08
	b	Describe any four types of operators with examples for each.	08
5	a	What is an array? How do you declare and initialize one and two dimensional array? Explain with an example.	10
	b	Write a C program to find sum of elements.	06
		OR	
6	a	Briefly explain string manipulation functions with examples.	10
	b	Write a C program that accepts 3×3 matrix and computes the sum of each row.	06

7	a	Describe two ways of passing parameters to function and explain with an example.	10
	b	Differentiate between structures and arrays. Declare and initialize a structure for an employee of a company.	06
8	a	Explain the declaration and initialization of a pointer variable with an example.	06
	b	Write a *C* program to swap two numbers using pointers and user defined functions.	06

	c	Illustrate the following functions with examples:
		   i) fscanf()
		   ii) fprintf().
			04