

C.U.SHAH UNIVERSITY

Summer Examination-2016

Subject Name: C Programming and Mathematical Algorithms-II

Subject Code:5SC04CBE1

Branch: M.Sc.(Mathematics)

Semester: 4

Date :07/05/2016

Time : 02:30 To 04:30

Marks : 35

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the Following questions (07)

- a. Define Recursion. **(02)**
- b. Define Unions. **(02)**
- c. Write output of following. **(02)**

```
main()
{ printf("\n I am in main");
  Italy();
  Brazil();
}
Italy ()
{ printf("I am in Italy");}
Brazil()
{ printf("I am in Brazil");}
```
- d. Which function is used to draw line? Give meaning. **(01)**

Q-2 Attempt all questions (14)

- a) What is an array? Explain the declaration and initialization of one and two dimensional arrays with example. **(07)**
- b) What is a file? Explain how the file open and file close functions handled in C. **(07)**

OR

Q-2 Attempt all questions (14)

- a) What is a pointer? Explain how the pointer variable declared and initialized with example. **(07)**



- b) How to draw different figures using C programming. Explain function rectangle(), putpixel(), circle(), ellipse(). (07)

Q-3 Attempt all questions (14)

- a) What is function? Write general form of a function, advantages of function. Explain call by value and call by reference. (07)
- b) Write a C program to solve the equation by using bisection method. (07)

OR

- Q-3** a) What is structure? Explain the declaration of structure, array of structure with example. (07)
- b) Write a C program to add to matrices using function. (07)

