

Code No: R161107

R16**SET - 1****I B. Tech I Semester Supplementary Examinations, April/May - 2017****COMPUTER PROGRAMMING**

(Com. to ECE, AE, AME, BOT, CHEM, CE, CSE, IT, EIE, EEE, ME, MTE, MM, PCE, PE, E.Com. E)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**
- ~~~~~

PART -A

1. a) Differentiate between Random Access Memory and Read Only Memory. (2M)
- b) Write a 'C' program to find the largest among two numbers using Conditional Operator. (2M)
- c) Differentiate between '*break*' and '*continue*' statements. (2M)
- d) Explain about Actual and Formal parameters. (2M)
- e) How the Pass by reference parameter passing technique is implemented in C programming? (2M)
- f) Write a C statement to initialize an identity matrix of size 4. (2M)
- g) List the Dynamic memory management functions in C programming. (2M)

PART -B

2. a) Write about Procedural and Object-Oriented Languages and also give a list of computer programming languages. (7M)
- b) Explain in detail, the sequence of steps to be followed in writing an algorithm for finding the sum of first 'N' natural numbers. (7M)
Hint: Sum of First 'N' natural numbers = $N(N+1) / 2$
3. a) What is meant by Short Circuit Evaluation in any programming language? List and Explain the execution of Short-Circuit operators in C programming. (7M)
- b) What do you mean by Formatted Input? Explain in detail the prototype of '*scanf*' function in C including its argument list and return type. (7M)
4. a) What is a loop? Explain different statements in C with example. (7M)
- b) Write a C program to find the sum of first and last digit of a number. (7M)
5. a) What is Recursive Function? What are the constraints for defining a Recursive function? Explain with an example. (7M)
- b) Write a C program to swap the values of two variables using a function. (7M)
6. a) Write a C program to access the values of an array of elements using pointer. (7M)
- b) Write a C program to copy the content of a String to another String without using String handling functions. (7M)
7. a) Explain the concept of Nested structures with a sample C program. (7M)
- b) Write a C program to read and display the contents of a file. (7M)