

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – I • EXAMINATION – SUMMER 2018

Subject Code: 2610001

Date: 19-May-2018

Subject Name: Fundamentals of Programming

Time: 02.30 pm to 5.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) i) Define function in C. 02
ii) What is “break” keyword? 02
iii) Define Algorithm. 01
iv) What is the difference between local and global variable declaration in C. 01
v) Explain atoi() function. 01
(b) i) How can we declare two dimensional arrays in C? What is an array pointer? 03
ii) What does it mean by actual arguments and formal arguments? What is the scope of formal arguments? 04
- Q.2** (a) Which are the control structures available in C Language? Explain any one with example. 07
(b) What does it mean by Unary operator and Binary operator? Explain at least 5 different unary operators used in C. 07
- OR**
- (b) i) List down any three C Compilers. “C is the Middle Level Language”. Justify this statement. 04
ii) What is the requirement of Algorithm? 03
- Q.3** (a) Write a program to count consonant characters from a given string. 07
(b) What is the general form of do-while statement, while statement and for loop statement with example? 07
- OR**
- Q.3** (a) What does storage class tell us? What are the types of storage class? 07
(b) Define structure? What is the purpose to declare a structure? Explain with code. 07
- Q.4** (a) What is recursive function? Explain it in brief. Write a recursive function to find factorial of given number. 07
(b) List and explain all the functions to write and read data to and from file. 07
- OR**
- Q.4** (a) Differentiate between macro and function with the help of suitable example. 07
(b) What is Linked List? How it is differ from array? Write a program to add node at last in the linked list. 07
- Q.5** (a) Write a program for insertion of a new node before a specified node in a Linked List. 07
(b) Write a program to check whether a string is palindrome or not. 07
- OR**
- Q.5** (a) How files can be managed in C? Explain three necessary functions to access a file randomly? 07
(b) How to pass one dimensional array and two dimensional array as arguments in a function? – explain each with suitable example. 07
