

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – I • EXAMINATION – SUMMER - 2017

Subject Code: 2610001

Date: 15-06-2017

Subject Name: Fundamentals of Programming

Time: 10:30 am - 01:00 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)** Answer the following questions. **07**
- (1) Why C language is called a Procedural Language?
 - (2) What is pointer? How it is different from normal variable.
 - (3) What is String in C? How to store string data in C language?
 - (4) What is function prototype in C? Is it compulsory to define in program?
 - (5) What is the concept of pointer to pointer?
 - (6) How Enumeration data type is used in C language?
 - (7) What is the use of FILE pointer in file handling?
- (b)** Differentiate Array and Linked list. **07**
- Q.2 (a)** Explain different decision making statements of C with examples. **07**
- (b)** Define term: Identifier & Keywords. Explain different rules for identifier declaration. **07**
- OR**
- (b)** What is an Algorithm? Explain its features with suitable example. **07**
- Q.3 (a)** What is function? Explain user defined function in details with UDF of factorial calculation of any number. **07**
- (b)** Explain Entry Control & Exit Control loop in details with syntax, use and example. **07**
- OR**
- Q.3 (a)** What is Preprocessor? Explain C preprocessor in detail with example. **07**
- (b)** What do you mean by dynamic memory allocation? Explain two different functions for that with suitable example. **07**
- Q.4 (a)** Draw a flow chart & write a C Program which verify that, whether enter number is Armstrong number or not. **07**
- (b)** Write short note on Structure of C language with concept of nested structure. How is it different from Union? **07**
- OR**
- Q.4 (a)** Draw a flow chart & write a C Program which calculate sum of all digits of given any number. **07**
- (b)** What is storage class? List out different storage class with explanation. **07**
- Q.5 (a)** What is command line argument? How it is used in c program? Explain in details with example. **07**
- (b)** Explain different file opening mode available in C with suitable example. **07**
- OR**
- Q.5 (a)** Explain fprintf() and fscanf() function with syntax , use and example. **07**
- (b)** What is linked list? Explain how to add and delete a node after a particular node with example. **07**
