

**2019**

Time : 3 hours

Full Marks : 80

*Candidates are required to give their answers in their own words as far as practicable.*

*The questions are of equal value.*

*Answer five questions in which*

*Q. No. 1 is compulsory.*

1. Choose the correct alternative of the following :
- (a) The role of compiler is to translate source program statement to :
- (i) Object Codes      (ii) Octal Codes  
(iii) Decimal Codes      (iv) None of these
- (b) What is the result of the expression  $(10/3) * 3 + 5\%3$  ?
- (i) 11      (ii) 10  
(iii) 8      (iv) 1



- (c) What is the ASCII range for 0 to 9 digits ?  
 (i) 40 to 57                      (ii) 65 to 90  
 (iii) 97 to 122                  (iv) None of these
- (d) Each case statement in switch() is separated by :  
 (i) Break                              (ii) Continue  
 (iii) Exit                                (iv) Goto
- (e) A character array always ends with :  
 (i) Null ('\0') character  
 (ii) Question mark ( ? )  
 (iii) Full stop ( . )  
 (iv) None of these
- (f) Recursion is a process in which a function calls :  
 (i) Itself                                (ii) Another function  
 (iii) Main () function                (iv) None of these
- (g) If a storage class is not mentioned in the declaration then default storage class is :  
 (i) Automatic                        (ii) Static  
 (iii) External                         (iv) Register

- (h) The member variable of structure are accessed by using :  
 (i) (.) operator                      (ii) (->) operator  
 (iii) (\*) operator                    (iv) (&) operator

2. Why the C Language is called middle level language ? Write the rules for writing a C-Program. What is the role of ({} ) curly braces in C-Program ?
3. What is C data type ? Explain the different data types in C with range.
4. What are formatted and unformatted functions ? Describe the difference between character I/O and string I/O.
5. Is it possible to use multiple else with if statement ? Write the use of else and default statement in if .....else and switch () statements respectively.
6. What is a Loop ? Why it is necessary in the program ? Write the syntax of the while do loop. Draw a control diagram of the while do loop.



7. (a) What are Pointers ? Why are they important ? Explain the features of Pointers.  
(b) Write a program to display all the elements of an array using a pointer.
8. What is function ? How it is declared in C ? Explain the concept of call-by-value and call-by-reference parameters.
9. What are structure and Union in C ? Explain the difference between structure and union.
10. Write short notes on any **two** of the following :
- (a) Compilers and Interpreters
  - (b) Recursion
  - (c) Array and its type
  - (d) Structure and Function
  - (e) String and Its Application

