

DiplETE – ET/CS (Current & New Scheme)

Time: 3 Hours

December 2016

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

- a. The C language consists of _____ number of keywords.
(A) 32 (B) 40
(C) 24 (D) 56
- b. What is sizeof in 'C'?
(A) Operator (B) Reserve Word
(C) Both (A) and (B) (D) Function
- c. Which is valid string function?
(A) strpbrk (B) strlen
(C) strxfrm (D) strcut
- d. C is a _____ language.
(A) High Level (B) Low Level
(C) Middle Level (D) Machine Level
- e. Which escape character can be used to begin a new line in C?
(A) \a (B) \b
(C) \m (D) \n
- f. The operator && is an example for _____ operator.
(A) Assignment (B) Increment
(C) Logical (D) Rational
- g. Header files in C contain
(A) Compiler commands (B) Library functions
(C) Header information of C programs (D) Operators for files
- h. In _____ transmission, the channel capacity is shared by both communicating devices at all times.
(A) simplex (B) half-duplex
(C) full-duplex (D) half-simplex

Code: DE53/DC53/ DE103/DC103

Subject: COMPUTER FUNDAMENTALS & C PROGRAMMING

- i. Which topology requires a central controller or hub?
 (A) Mesh (B) Bus
 (C) Star (D) Ring
- j. A computer for which processing is used to be done with help of microprocessor is called
 (A) Microprocessor (B) Microcomputers
 (C) mega computers (D) mega processor

**Answer any FIVE Questions out of EIGHT Questions.
 Each question carries 16 marks.**

- Q.2** a. Explain characteristics of computer. (8)
 b. Convert the following:- (8)
 (i) $(153)_{10} = (?)_2$
 (ii) $(952)_{10} = (?)_{16}$
 (iii) $(6B9)_{16} = (?)_2$
 (iv) $(1001001)_2 = (?)_{10}$
- Q.3** a. Explain impact and non-impact printer in detail. (8)
 b. What are the advantages of high-level language over assembly language. (4)
 c. Explain function of operating system. (4)
- Q.4** a. Explain component of microcomputer. (8)
 b. Explain the following: (2×4)
 (i) LAN
 (ii) Transmission Mode in Computer network
- Q.5** a. Explain the following: (2×4)
 (i) Identifiers & Keywords in C
 (ii) getchar() & putchar() function
 b. Explain operator precedence and associativity in 'C'. (8)
- Q.6** a. Explain switch statement with suitable example. (8)
 b. Explain the following: (2×4)
 (i) While loop & Do_while loop
 (ii) Continue statement
- Q.7** a. Write a program to add two matrices. (8)
 b. Explain following string function: (2×4)
 (i) strcpy()
 (ii) strlen()
- Q.8** a. Explain Call by value and Call by reference in detail. (8)
 b. Write a program to represent a function with argument and no returns value. (8)
- Q.9** a. Explain following: (2×4)
 (i) Pointer expression
 (ii) opening a file in file management
 b. Write a program to explain array of pointers. (8)