

Roll No.

--	--	--	--	--	--	--	--	--	--

Paper Code: TCS101

B.Tech
Mid Semester Examination 2017
I Semester

Fundamental of Computer and Introduction to C programming

Time: 1:30 Hours

MM: 50

Note:

- (i) This question paper contains two sections.
- (ii) Both sections are compulsory.

Section – A

Q1. Fill in the blanks/True-False

(1 X 5 = 5 Marks)

- a) C is a case sensitive language. (True/False)
- b) Float is a valid variable name. (True/False)
- c) Compiler is a _____ software.
- d) The fastest memory in hierarchy is _____
- e) 1GB is equal to _____ MB.

Q2. Attempt any five parts.

(3 X 5 = 15 Marks)

- a) Explain the Life cycle of a C program.
- b) Explain different categories of errors.
- c) Differentiate between compiler, interpreter and assembler.
- d) What is an Operating System? Explain different functions of Operating System.
- e) Explain advantages of using Flowcharts.
- f) Explain the following terms:-
 - i) Declaration of variable.
 - ii) Hub Vs Switch
 - iii) Portability of C language.

Section – B

Each question contains three parts a, b & c. Attempt any two parts of choice from each question.

Q3. a) What is network topology? Explain different type of topologies.

(5 X 2 = 10 Marks)

- b) Write an algorithm to input sides of a triangle and check if it is equilateral, isosceles or scalene.
- c) Write a program to input simple interest, rate and time. Calculate and print the principle amount.

Q4.

(5 X 2 = 10 Marks)

- a) Define and explain computer with a block diagram.
- b) Draw a flowchart to input selling price and cost price for a product check if a customer is in profit or loss or no profit no loss. Calculate and print profit percent and loss percent accordingly
- c) Write a program to input number of days and calculate no. of years, weeks and days. Assume 365 days in a year and 30 days in a month.

(example Input:- 829 Output :- 2 years 3 months and 9 days)

Q5.

(5 X 2 = 10 Marks)

- a) Differentiate between switch case and else if ladder with an example of each.
- b) Draw a flow chart to input basic salary of three employees and calculate their net salary on the basis of following criterion:-
 - Net salary = Basic salary + HRA + DA + TA
 - HRA is 30% of Basic
 - DA is 20% of Basic
 - TA is 10% of BasicPrint the highest net salary among the three. (Make a optimized solution)
- c) Write a program to implement calculator to perform basic arithmetic(+,-,* and /) operation.