Tribhuvan University Institute of Science and Technology 2075



Full Marks: 60 Bachelor Level / First Year/ First Semester/ Science Pass Marks: 24 Computer Science and Information Technology (CSc. 110) Time: 3 hours. (C Programming) (NEW COURSE) Candidates are required to give their answers in their own words as for as practicable. The figures in the margin indicate full marks. $(2 \times 10 = 20)$ Attempt any two questions: 1. What is looping statement? Discuss different looping statements with suitable example of each. (2+8)2. Define array? What are the benefits of using array? Write a program to add two matrices using (1+2+7)array. 3. Why do we need data files? What are the different file opening modes? Write a program that reads data from a file "input.txt" and writes to "output.txt" file. (2+3+5) $(8 \times 5 = 40)$ Attempt any eight questions: 4. Discuss different logical operators in detail. (5)5. What is break statement? Discuss with example. How the break statement is different from (1.5+3.5)continue statement? 6. Write a program to check whether a number entered is even or odd. (5) 7. Write a program to calculate sum of first 10 odd numbers. (5)(1.5+3.5)8. What is preprocessor directive? Discuss # define directive with example. (5) 9. Discuss any five string library functions. 10. What is dynamic memory allocation? Discuss the use of malloc () in dynamic memory allocation (1+4)with example. 11. What is structure? Create a structure rectangle with data members length and breadth. (2+3)

(2.5+2.5)

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(a) Benefits of data files(b) Graphics functions.

12. Write short notes on: