



SB-0609

First Year B. Sc. Examination

March / April – 2011

Computer Science : Paper - II

(Programming Language "C")

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book. Name of the Examination : <input type="text" value="F. Y. B. Sc."/> Name of the Subject : <input type="text" value="Computer Science - 2"/> Subject Code No. : <input type="text" value="0"/> <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="9"/> Section No. (1, 2,.....): <input type="text" value="Nil"/>	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> Student's Signature </div>
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- (2) Q.1 is compulsory.
- (3) All questions carry equal marks.

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| 1 | (1) What is the difference between complier and interpreter?
(2) Define variable. What are the different types of variables?
(3) What are the advantages of using user defined functions?
(4) What is conditional operator? Execute the statement $Y=(x>Z)?(2*x+5): 1.5*x+3$;
(5) Why header files are included in "C" program?
(6) In array any array name represents what? What is the difference between $*ptr+1$ And $*(ptr+1)$;
(7) What do you mean by command line arguments? | 14 |
| 2 | (1) Differentiate between algorithm and flowchart.
Write algorithm and draw flowchart to find the smallest number from n numbers.
(2) Explain printf() function with format specifications. | 8+6 |

OR

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| 2 | (1) What do you mean by call by value and call by reference?
(2) What is recursion? Write a recursive program to find the binary equivalent of an integer. | 4+6+4 |
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[Contd...

(3) Identify the syntax error in the following program and correct it :

a. main() {float X; X = 25; Y = Exp(x); /**printing section**/ Print(x,y) }	b. main() {float X; X = 25; Y=++x-X++; break; Print(x,y) }
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- 3 (1) Explain syntax of switch with example. 6+4+4
(2) Explain how to declare and initialize a one dimensional and two dimensional array.
(3) Define a structure. What is the difference between array and structure?

OR

- 3 (1) Explain different types of 'if' with example. 6+2+6
(2) What do you mean by self referential structure?
(3) Write the functions of the following :
(a) strcmp() (b) Strcat() (c) sizeof() (d) amaalloc().

- 4 (1) What are the advantages of using pointers in "C" program? What do you mean by array of pointers and pointer to array? 6+4+4
(2) Write a program to accept a string and check whether it is palindrome or not.
(3) What are the bitwise operators? Explain.

OR

- 4 (1) Discuss the following : 9+5
(a) typedef (b) enumerated data type (c) macro.
(2) Write a program to sort a matrix of order MxN . Use dynamic memory allocation for Array.

- 5 (1) What are the file opening modes ? 4+10
(2) Write a program to read a text file, convert all uppercase to lowercase and write to another file. Accept the filenames as command line arguments.

OR

- 5 (1) Explain the following functions 4+2+8
(a) feof() (b) fseek()
(2) What do you mean by structured programming.
(3) Explain different types of for loops.