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B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2011.

First Semester

Computer Science — Main

Paper I — PROGRAMMING IN C

(For those who joined in July 2008 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer.

1. Value which does not vary during the execution of program
- (a) variable (b) constant
(c) data (d) none

2. If $a = 4$, $b = 3$, then what is the value of $a \% b$?
- (a) 2 (b) -2
(c) 0.2 (d) 1
3. In while and do loops _____ statement causes the control to go directly to the test condition.
- (a) break (b) continue
(c) goto (d) none
4. How many times is a do while loop guaranteed to loop?
- (a) 0 (b) Infinitely
(c) 1 (d) Variable
5. For using character functions we must include the header file _____ in the program.
- (a) conio.h (b) ctype.h
(c) string.h (d) stdio.h
6. In C, if you pass an array as an argument to a function, what actually gets passed?
- (a) Value of elements in array
(b) First element of the array
(c) Base address of the array
(d) Address of the last element of array

7. A function can
- (a) perform a task
 - (b) return value
 - (c) change the value of an argument
 - (d) none
8. Array passed as an argument to a function is interpreted as
- (a) Address of the array
 - (b) Value of the first element of the array
 - (c) Address of the first element of the array
 - (d) Number of element of the array
9. Which of the following is the correct way of declaring a float pointer?
- (a) float ptr;
 - (b) float *ptr;
 - (c) *float ptr;
 - (d) None of these options
10. `f = fopen( filename, "r" );`
Referring to the code above, what is the proper definition for the variable f?
- (a) FILE f;
 - (b) FILE *f;
 - (c) int f;
 - (d) struct FILE f;

PART B — (5 × 5 = 25 marks)

Answer ALL the questions choosing either (a) or (b).

11. (a) Explain the relational operators in C.
- Or
- (b) Write a note on enhancing the readability of output.
12. (a) Write a C program to find the average of n numbers.
- Or
- (b) Write a program to check whether the given number is a prime.
13. (a) Define array and explain how two-dimensional array is initialized.
- Or
- (b) Write a note on table of strings.
14. (a) What is function? How function is defined?
- Or
- (b) What is a register variable?

15. (a) Write a short note on pointer to pointer.

Or

- (b) Discuss on command line arguments.

PART C — (5 × 8 = 40 marks)

Answer ALL the questions choosing either (a) or (b).

16. (a) Describe the different type declarations in C.

Or

- (b) Explain the different types of constants in C.

17. (a) Give the syntax of the various looping statements in C.

Or

- (b) Write a program to find the biggest of three numbers.

18. (a) Describe string handling functions.

Or

- (b) Write a program to print the diagonal elements of a square matrix.

19. (a) Explain structures in detail.

Or

- (b) Explain bit fields in union.

20. (a) Discuss the input operations on file.

Or

- (b) Discuss the output operations on file.