

(6 pages)

Reg. No. :

Code No. : 20987

Sub. Code : GMCS 11/
GMSE 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2015.

First Semester

Computer Science - Main

INTRODUCTION TO COMPUTERS AND
PROGRAMMING IN C

(For those who joined in July 2012 and afterwards)

Time : 3 hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Which technology was used in the third generation computers?
- (a) transistors (b) vacuum tubes
- (c) ICs (d) all the above

2. Which of the following units is a part of the CPU?
- (a) arithmetic logic unit (b) control unit
- (c) memory unit (d) all of the above
3. Which of the following is the correct form of writing comments in C language?
- (a) /* comment*/ (b) /* comment/*
- (c) */ comment/* (d) */ comment*/
4. Which of the following cannot be used for declaring integer type variables?
- (a) int (b) short int
- (c) long int (d) double int
5. A for loop with no test condition is known as a _____ loop.
- (a) finite (b) infinite
- (c) exit-controlled loop (d) entry-controlled loop
6. Recursion is a situation where
- (a) a function calls the main function
- (b) a function calls any of the system functions
- (c) a function calls itself
- (d) none of the above

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7. Which of the following multi-dimensional array declaration is correct for realizing a 2×2 matrix?
- (a) `int m[2][2]` (b) `int m[2,2]`
 (c) `int m[2], m[2]` (d) none of the above
8. What will be the expression for obtaining the address of the i^{th} element of an array `a`?
- (a) `a[i]` (b) `&a[i]`
 (c) `*a[i]` (d) `a[&i]`
9. All the members in union
- (a) use the same storage location
 (b) has its own storage location
 (c) refer to a pointer
 (d) none of the above
10. The _____ function is used to read an integer value from a file.
- (a) `getchar()` (b) `getc()`
 (c) `fseek()` (d) `getw()`

PART B — ($5 \times 5 = 25$ marks)

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

Each answer should not exceed 250 words.

11. (a) Write short notes on hybrid computers.

Or

- (b) Explain the classification of programming languages.

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12. (a) List the rules for constructing real constants in 'C' language. Give examples.

Or

- (b) Write a 'C' program to exchange the values of two variables.

13. (a) Write a 'C' program to check whether a given number is prime number or not and print the result.

Or

- (b) What is the purpose of an automatic variable? What is its scope? Explain with an example.

14. (a) Write a 'C' program to find the greatest of 'N' numbers stored in an array and print the result.

Or

- (b) Write a 'C' program to reverse a given string and print the result.

15. (a) How will you declare a union and access its members? Explain with an example.

Or

- (b) Explain the functions used for opening and closing a file with arguments and return types.

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 [P.T.O.]



PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the generation of computers.

Or

- (b) Explain with examples audio output device.

17. (a) With an example explain the structure of a 'C' program.

Or

- (b) With example discuss type conversion in assignments statements in 'C' language.

18. (a) Write a 'C' program to perform basic arithmetic operations using switch case statement.

Or

- (b) What is a function? Why do we use functions? Explain with an example.

19. (a) Write a 'C' program to sort an array of 'N' numbers in ascending order.

Or

- (b) List and explain any four string manipulation functions in 'C' language with examples.

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20. (a) Define a structure called cricket that will describe the following information:

Player Code

Player Name

Team Name

Batting Average

Using cricket, declare an array player with fifty elements and develop a 'C' program to read the information about all the fifty players and print a team wise list containing details of players.

Or

- (b) Develop a C program that will create a data file containing the list of employees in the following table :

ID	NAME	DESIGNATION
123	Hamen	Assistant Professor
124	Vippin	Professor
.....		

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