



10CCP13/23

First ^{or Enact} **Second Semester B.E. Degree Examination, June/July 2019**
Computer Concepts of 'C' Programming

Time: 3 hrs.

Max. Marks:100

*Note: Answer any FIVE full questions,
choosing at least TWO from each part.*

PART — A

1 a. Choose the correct answers for the following : (04 Marks)

- i) Which of the following is not a multiuser computer
 A) PC B) Minicomputer C) Mainframe D) Super Computer
 - ii) Transistor invention falls under the generation
 A) First B) Second C) Third D) None of above
 - di) Which of the following is non-impact printer
 A) Dot Matrix B) Dairy Wheel C) Laser Printer D) Line Printer
 - iv) Binary equivalent of 2B is
 A) 0010 1011 B) 0011 1010 C) 0001 1011 D) 0100 1011.
- b. What is cache memory? How its presence affects the speed of processing. (06 Marks)
- c. What is firmware? How is it different from s/w? Give suitable example. (04 Marks)
- d. What are the different types of key boards? Briefly explain its working. (06 Marks)

2 a. Choose the correct answers for the following : (04 Marks)

- i) Identify the odd term among the following :
 A) Coaxial Cable B) Optical Fibre C) Twisted Pair D) Micro Wave
 - ii) Hard disk can serve as
 A) Input Media B) Output Media C) Storage D) All of Above
 - iii) Which of the following is used to manage hardware, input and output operation
 A) Operating System B) Compiler
 C) DBMS D) Command interpreter
 - iv) Which of following is not an application software
 A) Word processor B) Spread sheet C) UNIX D) Disk top publisher
- b. Describe the major difference between a time sharing and client /server environments. (06 Marks)
- c. Explain the memory management functions of O.S. (06 Marks)
- d. What is computer network? Mention the layers of OSI — model. (04 Marks)

3 a. Choose the correct answers for the following : (04 Marks)

- i) Which of the following improves the quality of software
 A) Understandability B) Completeness C) consistency D) All of above
 - ii) In which phase of software development source code is converted into object code.
 A) Compilation B) Linking C) testing D) Integration
 - iii) Oval sign on a flow chart indicates.
 A) End B) Start C) Both A and B D) None of above
 - iv) Which of the following is not a key word in 'C'
 A) int B) char C) while D) sqr.
- b. List the steps involved in problem solving on computers. Briefly explain them. (08 Marks)
- c. Draw a flow chart to find largest of 3 numbers. (04 Marks)
- d. What are identifiers? Give the rules in forming identifiers. (04 Marks)



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4 a. Choose the correct answers for the following :

(04 Marks)..

- i) What is the value of term in the statement $\text{term} = 1/k$; if term is float and k is int data type
 - A) 0.5
 - B) 0.0
 - C) 1.0
 - D) 0.1
- ii) If 'x' is variable of type int, the value returned by `sizeof(x)` is
 - A) 1
 - B) 2
 - C) 8
 - D) 4
- iii) Break statement transfers the control
 - A) Out of block
 - B) Out of function
 - C) Out of program
 - D) None of above
- iv) If $i = 1$, then the output of `printf("%d", i++)` is
 - A) 1
 - B) 2
 - C) 0
 - D) none of above
- b. Write a program to print roots of quadratic equation. (08 Marks)
- c. Explain ternary operator, with a sample code segment. (04 Marks)
- d. Convert the following into 'C' equivalent.

$$A) x + y - P \quad B) \frac{(a+b)^2}{(a-b)^2}$$

(04 Marks)

PART — B

5 a. Choose the correct answers for the following :

(04 Marks)

- i) The arguments in the function call are called
 - A) Formal parameters
 - B) Actual parameters
 - C) Variables
 - D) None of above
 - ii) Functions in 'C' should have at least
 - A) No argument
 - B) One argument
 - C) Two arguments
 - D) None of above
 - iii) `printf()` function is in built-in _____ header file
 - A) `stdlib.h`
 - B) `stdio.h`
 - C) `conio.h`
 - D) `math.h`
 - iv) Global variables are accessed to
 - A) Only `main()`
 - B) All the function
 - C) All function accept `main()`
 - D) None of above.
- Distinguish between the following :
- i) Actual and formal parameters
 - ii) Global and local variables
 - iii) Automatic and static storage class. (12 Marks)
- c. Write a program using functions to find the product of two numbers. (04 Marks)

6 a. Choose the correct answers for the following :

(04 Marks)

- i) Which of the following 'C' statement branches unconditionally from one point to another point
 - A) `if`
 - B) `switch`
 - C) `goto`
 - D) `while`
- ii) The statement in 'C' which skips the remaining statements and proceeds with next iteration is
 - A) `Break`
 - B) `Continue`
 - C) `exit()`
 - D) `switch()`
- iii) Which of the following control structure uses care label
 - A) `while`
 - B) `for`
 - C) `if-else`
 - D) `switch`
- iv) Recursive function will have
 - A) Call to itself
 - B) Terminating condition
 - C) An argument
 - D) All of above.
- b. List the different if statements, write 'C' program to illustrate any two if statements. (08 Marks)
- c. Differentiate between do-while loop and for-loop structure. (04 Marks)
- d. Write a program in 'C' to find factorial of 'n'.nitirber using recursion. (04 Marks)



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- 7 a. Choose the correct answers for the following (04 Marks)
- Subscripted variables are called as

A) Identifier	B) structure	C) Array	D) Array of structure
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 - Array name can also be used as

A) Pointer variable	B) Base address	C) Variable	D) Constant
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 - A string can be a array of

A) Alphabets	B) Special characters	C) Digits	D) All of above
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 - End of string is marked with character

A) In	B) \0	C) \b	D) \s.
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- b. Illustrate with a example how the integer elements of one dimensional array is stored, if base address is 2000. (06 Marks)
- c. Explain with an example to declare and initialize a string. (04 Marks)
- d. Given array of n elements, find the largest element. Write e code for this_ (06 Marks)
- 8 a. Choose the correct answers for the following : (04 Marks)
- Parallelism means

A) Having multiprocessors	b) Dual core processor	c) Concurrently executing instruction on a single cpu	d) All of above
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 - Open MP is an

A) Operating system	B) Framework	C) API	D) None of above
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 - Which of the following is not an openMP variable

A) OMP_DYNAMIC	B) OMP_Nested
C) OMP_get_Nested	D) OMP_NUM_THREADS
 - Important application of parallel computing

A) Scientific application	B) Weather forecasting
C) Analyzing biological sequences	D) All of above.
- b. Briefly explain the scope of parallel computing. (06 Marks)
- c. Write a program using openMP to generate prime number using the method seive of erastosthenes. (08 Marks)
- d. List any four openMP library functions. (02 Marks)

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