10CCP13/23

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Firs cond 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 lol 1 D) 0100 1011.

b. What is cache memory? How its presence affects the speed of processin g. (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 improvers 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 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 printg"%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) $x + y - P$ B) $\frac{(a+b)^2}{(a-b)'}$ **(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) printa) 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 fomal 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)**

7 a. Choose the correct answers for the following **(04 Marks)**

i) Subscripted variables are called as
A) Identifier **B)** structure C) Array D) Array of structure

ii) Array name can also be used as
A) Pointer variable B) Base address C) Variable D) Constant

iii) A string can be a array of
A) Alphabets B) Special characters C) Digits D) All of above

iv) End of string is marked with character
A) In B)\0 C) \b D) 1s.

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)**

i) Parallelism means
A) Having multiprocessors
b) Dual core processor
c) Concurrently executing instruction on a single cpu
d) All of above

ii) Open MP is an
A) Operating system B) Framework C) API D) None of above

iii) Which of the following is not an openMP variable
A) OMP OYNAMIC B) OMP_Nested
C) OMP_get_Nested D) OMP_NUM_THREADS

iv) 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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