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06CCP13/23

**First/Second Semester B.E. Degree Examination, December 2011**  
**Computer Concepts and C Programming**

Time: 3 hrs.

Max. Marks:100

- Note:** 1. Answer any FIVE full questions, choosing at least two from each part.  
2. Answer all objective type questions only in OMR sheet page 5 of the answer booklet.  
3. Answer to objective type questions on sheets other than OMR will not be valued.

**PART - A**

- 1 a. Choose your correct answer for the following :
- i) A computer is controlled by \_\_\_\_\_.  
A) Information      B) Data      C) Instructions      D) Hardware
  - ii) Which type of computer is most likely used for weather forecasting?  
A) Super computer      B) Smart phone      C) Mainframe      D) Workstation
  - iii) 1 GB is equal to :  
A)  $10^6$  bytes      B)  $10^9$  bytes      C)  $10^{12}$  bytes      D)  $10^{15}$  bytes
  - iv) The common keyboard arrangement is called \_\_\_\_\_.  
A) QWERYT      B) QEWTYR      C) QWERTY      D) QYWERT
- b. What types of computers are used by the organizations? Explain. (04 Marks)  
(06 Marks)
- c. How the hardware devices of a computer are classified? Explain any two types of devices in detail. (10 Marks)
- 2 a. Choose your correct answer for the following :
- i) What does the term CPI stands for?  
A) Programmable Computer Interconnection.  
B) Programmable Computer Interface.  
C) Peripheral Component Interconnect.  
D) Peripheral Computer Interface.
  - ii) \_\_\_\_\_ can represent more than 4 billion different characters or symbols.  
A) Unicode      B) ASCII      C) BCD      D) EBCDIC
  - iii) Different operating systems use different \_\_\_\_\_ systems.  
A) Power      B) File      C) Disk      D) Control
  - iv) Which of the following is a common drive interface standard used in PCs?  
A) AEIOU      B) ETC      C) EIDE      D) EIEIO
- b. Explain how do computers process the data. (04 Marks)  
(10 Marks)
- c. Briefly explain any two optical storage devices. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

- 3 a. Choose your correct answer for the following :
- DOS and some versions of UNIX are examples of \_\_\_\_\_ interfaces.
 

A) Old – fashioned	B) GUI
C) Command – line	D) Parallel
  - Which version of windows 2000 was intended for use on desktop computers?
 

A) Professional	B) Server
C) Enterprise edition	D) Data center server.
  - In a \_\_\_\_\_ network, all nodes are connected to a device called a hub and communicate through it.
 

A) BUS	B) Star
C) Ring	D) Mesh
  - Every webpage has a unique address called a \_\_\_\_\_.
 

A) Hyperlink	B) Uniform resource locator
C) HTTP	D) Map
- (04 Marks)
- b. What do you mean by network topology? Explain different network topologies. (10 Marks)
- c. List the most commonly used internet services. Explain the use of e – mail. (06 Marks)
- 4 a. Choose your correct answer for the following :
- In a passage of text, individual words and punctuation marks are called \_\_\_\_\_.
 

A) Variables	B) Constants
C) Tokens	D) Keywords
  - Which of the following is not a valid string constant?
 

A) "x"	B) 'x'
C) "2009"	D) "5 + 10"
  - What is the output of the following C statements?
 

```
x = 5 ; y = 10 ;
y = ++ x - y ;
y = y + 10 ;
printf("%d", y) ;
```

A) 5	B) 20
C) 6	D) None of these
  - Which of the following is not a bitwise operator?
 

A) &	B) <<
C) &&	D)
- (04 Marks)
- b. Define an algorithm and explain the important characteristics of an algorithm. (04 Marks)
- c. Write a flow chart to find all roots of the quadratic equation  $ax^2 + bx + c = 0$ . (08 Marks)
- d. With an example explain the following :
- Logical operators
  - Conditional operator. (04 Marks)

**PART – B**

- 5 a. Choose your correct answer for the following :
- Which of the following built in function can be used to erase the unwanted characters?  
A) delete                      B) erase                      C) fflush                      D) flush
  - What will be the output of the following program?  
#include<stdio.h>  
int A = 10;  
void main( )  
{int a = 50;  
printf(“%d”, a); }  
A) 50                      B) 10                      C) error                      D) garbage value
  - Which of the following can't be checked in a “switch – case” statement?  
A) enum                      B) int                      C) char                      D) float
  - Which of the following functions is most opt for reading a multiword?  
A) puts( )                      B) gets( )                      C) scanf( )                      D) vscanf( )  
(04 Marks)
- b. Write a program to pick and print the largest of the three numbers using nested if....else statements. (08 Marks)
- c. Write a C program using switch statement for computing the area of different geometrical figures, such as a circle, a square, a triangle and a rectangle. The program should display the menu of figure codes of different figures. On choosing a particular code, the corresponding parameters required by that figure code are accepted and processed. Finally the area should be printed. (08 Marks)
- 6 a. Choose your correct answer for the following :
- The \_\_\_\_\_ statement is used to skip a part of the statement in a loop.  
A) Continue                      B) break                      C) goto                      D) switch
  - Which of the following looping construct is entry controlled loop?  
A) While                      B) do.....while                      C) for                      D) None of these
  - What is the output of the following code segment?  
count = 5;  
while(count -- > 0)  
printf(“%d\t”, count);  
A) 4 3 2 1 0                      B) 4 3 2 1 0 -1  
C) 5 4 3 2 1                      D) 5 4 3 2 1 0
  - If the body of the loop contains only a semicolon, then it is called as \_\_\_\_\_.  
A) Infinite statement                      B) Sentinel statement  
C) Null statement                      D) None of these.  
(04 Marks)
- b. Write a C program using do.....while loop to accept an integer and reverse it. Also check whether it is palindrome or not. (08 Marks)
- c. Write a program to evaluate  $1! + 2! + 3! + \dots + n!$  (08 Marks)

- 7 a. Choose your correct answer for the following :
- An array is a \_\_\_\_\_ data type.
 

A) Fundamental	B) User – defined
C) Derived	D) None of these
  - When an array is declared, array elements are initialized to \_\_\_\_\_.
 

A) 1	B) -1
C) 0	D) None of these
  - Which of the following declarations has an error?
 

A) <code>int a[ ] = {0, 0, 0, 0, 0} ;</code>
B) <code>float b[3][2] = {0, 1, 2, 3} ;</code>
C) <code>char c[ ] = {'V', 'T', 'U', ' 0'}</code>
D) <code>int m[2, 4]={{0, 0, 0, 0}, {1, 1, 1, 1}};</code>
  - Arrays can be initialized at :
 

A) Compile time	B) Run time
C) Both A and B	D) None of these
- b. Write a program to read n integers and sort them in an ascending order. Print the original and sorted arrays. (08 Marks)
- c. Define an array. How arrays are classified? How are they initialized? Explain with an example. (08 Marks)

- 8 a. Choose your correct answer for the following :
- \_\_\_\_\_ statement is required, if the return type is anything other than void.
 

A) goto	B) continue
C) return	D) break
  - `sqrt()` is a \_\_\_\_\_ function
 

A) user – defined function	B) library
C) variable	D) keyword
  - In modular programming, modules are designed as :
 

A) Single – entry systems	B) Single – exit systems
C) Both A and B	D) None of these
  - Which of the following is an illegal declaration?
 

A) <code>int sum(int a, b);</code>	B) <code>int sum(int a, int b) ;</code>
C) Both A and B	D) None of these
- b. Distinguish between the following, with an example : (08 Marks)
- Actual and formal parameters.
  - Global and local variables.
  - Calling function and called function.
- c. Write a C function to find the factorial of a number. Use this function to evaluate the binomial coefficients. The formula to compute binomial coefficient is,  $bc = \frac{n!}{r!(n-r)!}$ . (08 Marks)

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