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10CCP13

First Semester B.E. Degree Examination, January 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 on 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 answers for the following :
- Which of these are also known as PDA s ?  
A) workstations      B) mainframes      C) handheld PC s      D) super computer
  - Which is the most powerful type of computers?  
A) microcomputer      B) minicomputer  
C) mainframe computer      D) super computer
  - Which of the software is used for creating slide show?  
A) web design software      B) word processing software  
C) Presentation software      D) spread sheet software
  - Which of the following is not a type of mouse?  
A) infra-red mouse      B) opto-mechanical mouse  
C) optical mouse      D) wireless mouse      (04 Marks)
- b. Draw the basic structure of computer and explain in brief.      (06 Marks)
- c. Explain the different types of printers.      (10 Marks)
- 2 a. Choose your answers for the following :
- The two types of storage available in host computer system are \_\_\_\_\_ and \_\_\_\_\_.  
A) primary and secondary      B) RAM and ROM  
C) primary and hard disk      D) none of these
  - An example of magnetic storage device is  
A) CD-ROM      B) diskette      C) DVD      D) flash memory
  - What does the term SCSI stand for?  
A) small computer software interface      B) small computer storage interface  
C) small computer system interface      D) small computer standard interface
  - Acronym DOS stands for  
A) disk operating system      B) driver operating system  
C) diskless operating system      D) distributed operating system      (04 Marks)
- b. List and explain any four types of computer processing techniques.      (10 Marks)
- c. Explain the types of networks, in brief.      (06 Marks)
- 3 a. Choose your answers for the following :
- Which of the following is not a data type?  
A) char      B) float      C) int      D) logical
  - Symbols used in flow chart for decision making is :  
A) rectangle      B) circle      C) parallelogram      D) diamond shape

- 3 a. iii) The tool used to convert a source program to a machine language is :  
 A) compiler B) loader  
 C) linker D) preprocessor
- iv) Which of the following is not a valid identifier?  
 A) \_option B) amount C) \$amount D) sales\_amount (04 Marks)
- b. Explain the input and output statements, with examples. (08 Marks)
- c. Draw the structure of C-program and explain in brief. (08 Marks)
- 4 a. Choose your answers for the following :
- i) Which of the following is a unary expression?  
 A) ++x B) --x C) -5 D) x = 4
- ii) \_\_\_\_\_ is used to determine the order in which different operations in complex expression are evaluated.  
 A) predictivity B) infix evaluation C) associativity D) none of these
- iii) How will  $a = (\text{int})32.2/(\text{int})4.3$  be evaluated?  
 A) 32.3/4.3 B) 32.0/4.0 C) 32/4 D) none of these
- iv) Which is not an arithmetic operator?  
 A) + B) - C) \* D) & (04 Marks)
- b. Write C assignment statements for :
- i) Area =  $\pi r^2 + 2\pi rh$  ii) Torque =  $\frac{2m_1m_2}{m_1 + m_2} \cdot g$  iii) Side =  $\sqrt{a^2 + b^2 - 2ab\cos(x)}$  (06 Marks)
- c. Write a C-program to convert degrees to radians accepting a value from user. (06 Marks)
- d. Explain the postfix and prefix expressions, with examples. (04 Marks)

### PART - B

- 5 a. Choose your answers for the following :
- i) The default return type of a function is :  
 A) void B) char C) int D) float
- ii) A variable declared in a function is called  
 A) actual variable B) local variable C) formal variable D) global variable
- iii) The main () is a  
 A) library function B) keyword  
 C) user defined function D) none of these
- iv) Which of the following is not a part of function header?  
 A) name B) parameter list C) return type D) title (04 Marks)
- b. Discuss the different methods of parameter passing to function, with examples. (10 Marks)
- c. Write a C - program to find GCD of two numbers. (06 Marks)
- 6 a. Choose your answers for the following :
- i) \_\_\_\_\_ is a way to implement a multiway selection in C.  
 A) while do B) goto  
 C) for D) switch case
- ii) Which of the following is not a comparator operator in C?  
 A) < B) <= C) = D) >=

- 6 a. iii) Which of the C – loops is not a pretest loop?  
 A) do ..... while B) for  
 C) while D) none of these
- iv) Given the while loop as :  

```

i = 1;
while (i <= 32)
{
    print f ("%d", i);
    y;
}

```

 If the loop must produce an o/p of 1, 2, 4, 8, 16, 32, which of the following must replace y?  
 A) i = i + 2 B) i = i/2 C) i = i × 2 D) none of these (04 Marks)
- b. List the different decision making statements. Explain any two with their syntax and example. (07 Marks)
- c. Write the C-code to find factorial of a number with all the looping statements. (06 Marks)
- d. Explain the use of break and continue statements. (03 Marks)
- 7 a. Choose your answers for the following :
- i) If x [5] is a declaration, then the first and last array index will be :  
 A) 1, 5 B) 1, 6 C) 0, 4 D) 0, 5
- ii) An array is a group of related data that shares a common \_\_\_\_\_.  
 A) name B) index C) values D) all of these
- iii) Which of the following statement assigns the value stored in x to the first element on an array, ary?  
 A) ary = x [1] ; B) ary = x [0] ; C) ary [0] = x ; D) ary [1] = x ;
- iv) The de-limiter in a C string is :  
 A) new line B) a del character C) a null character D) none of these (04 Marks)
- b. Explain the declaration and initialization of one-dimensional array, with an example. (06 Marks)
- c. Explain the initialization and declaration of C – strings. (04 Marks)
- d. Write a C – program to read an array of size 'N' and print the array elements. (06 Marks)
- 8 a. Choose your answers for the following :
- i) Parallel computing is \_\_\_\_\_ execution of instructions in a computer.  
 A) simultaneous B) serial C) accurate D) complete
- ii) Which of the following is not a synchronization construct?  
 A) single B) master C) section D) critical
- iii) \_\_\_\_\_ reduces multiple private copies of variables belonging to different threads into a single value.  
 A) reduction B) consolidate C) deduction D) merge
- iv) Which of the following open Mp environmental variables enables or disables nested parallelism?  
 A) omp\_set\_nested B) omp\_get\_nested C) omp\_nested D) none of these (04 Marks)
- b. What is a thread? What are the advantages of using threads? (06 Marks)
- c. Explain the open Mp programming model, with a sample program. (10 Marks)

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