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First/Second Semester B.E. Degree Examination, Dec.2013/Jan.2014

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 the correct answers for the following : (04 Marks)
- Which of the following is not a type of keyboard connector?
 A) 5-pin connector B) 6-pin connector
 C) 8-pin connector D) USB-connector
 - Which of the following is not an output device of a computer?
 A) printer B) keyboard C) VDU D) CRT screen
 - Who is called the father of the computer?
 A) Balise Pascal B) Charles Babbage
 C) Joseph Jacquard D) Dr. Hewrman Hollerith
 - Which generation of computers is covered by the period 1964-1971?
 A) First B) Second C) Third D) Fourth
- b. Briefly explain about the various generations of computers. (06 Marks)
- c. With a neat figure, explain how instructions are processed by the CPU. (05 Marks)
- d. Describe briefly about the various keys present on a standard keyboard. (05 Marks)
2. a. Choose the correct answers for the following : (04 Marks)
- Which is a secondary memory device?
 A) CPU B) ALU C) Floppy disk D) Mouse
 - If you want to execute more than one program at a time, the systems software that you must be capable of
 A) word processing B) virtual memory C) compiling D) multitasking
 - A translator which reads an entire program written in a high level language and converts it into machine language code is
 A) assembler B) translator C) compiler D) system software
 - Which of the following is not an Application Software?
 A) Word processing B) Spreadsheet
 C) UNIX D) Desktop publishing
- b. Explain in detail about the construction and operation of the hard disk drive. (05 Marks)
- c. Briefly write about various computer processing techniques to process data. (07 Marks)
- d. List the different network components with examples. (04 Marks)
3. a. Choose the correct answers for the following : (04 Marks)
- The flowcharting symbol Diamond Shaped Box indicates
 A) Start B) Process step C) Decision D) End
 - Which of the following is not a keyword in C?
 A) char B) break C) triangle D) long
 - Which of the following is an input function?
 A) scanf B) printf C) puts() D) putchar()
 - Which of the following is a valid integer?
 A) -250 B) 4,442 C) -31.89 D) +3,728.2

- 3 b. What are the different built-in data types available with C? (06 Marks)
 c. With an example, explain the structure of a typical C program. (06 Marks)
 d. Briefly write what do you mean by the C tokens. (04 Marks)
- 4 a. Choose the correct answers for the following : (04 Marks)
 i) Which of the following is not a relational operator in C language?
 A) < B) > = C) != D) &
 ii) Which of the following is a special operator in C language?
 A) sizeof () B) log (x) C) exp (x) D) sin (x)
 iii) The unary operator in C are used to act upon only _____ operand.
 A) one B) two C) three D) four
 iv) If b = 10 and d = 3, what is the result for b%d operation?
 A) one B) two C) three D) 3.33
- b. Explain relational operators in C, with examples. (06 Marks)
 c. With an example, explain the Unary operator in C language. (04 Marks)
 d. Explain in detail about Bitwise operators in C language. (06 Marks)

PART – B

- 5 a. Choose the correct answers for the following : (04 Marks)
 i) The function that calls itself is called as _____.
 A) forwarding function B) conditional function
 C) recursive function D) backward function
 ii) The main() function work is defined in _____ library.
 A) stdio.h B) conio.h C) string.h D) math.h
 iii) Parameters passed as arguments to the function call are called as _____.
 A) actual parameters B) formal parameters
 C) no parameters D) none of these
 iv) Which of the following return statements in a function has error?
 A) return B) return(0)
 C) return(expression) D) none of these
- b. What is a function? Describe with declaration syntax. (04 Marks)
 c. Describe the two ways of passing parameters to function with examples. (08 Marks)
 d. Write a program to test whether or not a given integer number is prime with function. (04 Marks)
- 6 a. Choose the correct answers for the following : (04 Marks)
 i) Which of the following looping construct is an entry controlled loop?
 A) while B) do-while C) for D) none of these
 ii) Which of the following is a conditional statement that tests a value against different values?
 A) while B) for C) switch D) if
 iii) Which of the following is not a jump statement?
 A) break B) continue C) go to D) for
 iv) Which of the following is an exit controlled loop?
 A) if B) do-while C) while D) if-else
- b. Write and explain the declaration syntax for while and do...while loop. (04 Marks)
 c. Write a program to compute the sum of N numbers using the for loop. (06 Marks)
 d. Write a program to check whether the given alphabet is a vowel or not using switch statement. (06 Marks)

- 7 a. Choose the correct answers for the following : (04 Marks)
- i) In an array $a[5] = \{10, 20, 30, 40, 50\}$; the element 40 is designated as
 A) $a[0]$ B) $a[1]$ C) $a[3]$ D) $a[4]$
 - ii) In an array $\text{int } a[2][3] = \{10, 20, 30, 40, 50, 60\}$; the $a[0][1]$ element is
 A) 10 B) 40 C) 60 D) 20
 - iii) Which of the following string handling function is used to add two strings?
 A) $\text{strcat}()$ B) $\text{strncat}()$ C) $\text{strcmp}()$ D) $\text{strlwr}()$
 - iv) Which of the following string handling function is used to compare two strings?
 A) $\text{strlen}()$ B) $\text{strcmp}()$ C) $\text{strcpy}()$ D) $\text{strrev}()$
- b. Define an array. How are they declared in C language? (04 Marks)
- c. Write a program to read two matrices from keyboard and print the sum of two matrices. (07 Marks)
- d. Write a program to test whether the given string is a Palindrome or not. (05 Marks)
- 8 a. Choose the correct answers for the following : (04 Marks)
- i) Thread is defined as _____ stream of control flow in a program code.
 A) zero B) single C) control D) none of these
 - ii) Open MP programming model offers parallel directives for
 A) Shared Memory Access B) Zero Memory Access
 C) Multiple Memory Access D) None of these
 - iii) _____ execution of instructions in a computer system is referred to as parallel computing.
 A) Serial B) Sequential C) Accurate D) Simultaneous
 - iv) Open MP stands for _____.
 A) Open Multi-Parallelism B) Organized Multi-Programming
 C) Open Multi-Processing D) Organized Multi-Parallelism
- b. What are threads? Give the advantages and disadvantages of multiple threads. (06 Marks)
- c. Bring out the scope for Parallel computing. (06 Marks)
- d. Explain "Parallel computing" in detail. (04 Marks)

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