Pokhara University

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| Level: Bachelor | Semester: Spring | Year : 2014 |
| Programme: BE | | Full Marks: 100 |
| Course: Programming in C | | Pass Marks: 45 |
| Time : 3hrs. |

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| *Candidates are required to give their answers in their own words as far as practicable.* |
| *The figures in the margin indicate full marks.* |
| Attempt all the questions. |

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|  | 1. With the help of block diagram of digital computer explain the function of control unit and Memory unit. 2. What are rules for naming identifier? Why we need different data types in programming? Differentiate between local and global variables with suitable example. | 8  7 |
|  | 1. What is the importance of documentation in programming? Write an algorithm and draw a flowchart to find and output all the roots of a quadratic equation, for non-zero coefficients. In case of errors program should report suitable error message. 2. What do you mean by entry controlled an exit controlled loop? Explain different types of looping constructs available in C with suitable examples. | 8  7 |
|  | 1. Why array is important in programming? How can you initialize different types of arrays? Explain 2-dimensional array in C. 2. Define String. Write a program to read n employees names and display them in alphabetical order. | 7  8 |
|  | 1. What is recursive function? Write a recursive program to generate the first 15 numbers of Fibonacci sequence. 2. What do you mean by storage class? Define its types with suitable examples. | 7  8 |
|  | 1. What are the advantages of function call-by -\* reference over call-by-value? How would you pass a variable by reference to a function? Give an example. 2. What is Pointer? How does a pointer differ from an array? Explain dynamic memory allocation. | 8  7 |
|  | 1. What is nested structure? Create a structure called book having member name, price, author and published date in day, month and year. Write a program to read 100 books information from the user and display those books having price is greater than 250. 2. What is a significance of FILE pointer? Describe the different file opening modes in C. | 8  7 |
|  | Write short notes on: **(Any two)**   1. Goto statement. 2. String handling functions. 3. unary operations. | 2×5 |