Pokhara University

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| Level: Bachelor | Semester: Spring | Year : 2014 |
| Programme: BE | | Full Marks: 100 |
| Course: Principle of programming Language | | 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. What are the different areas and capabilities that you will consider while designing a new programming language and why? 2. "Programming languages influence focus and action" justify this statement | 9  6 |
|  | 1. Explain how data are shared between subprograms in FORTRAN. 2. Write a FORTRAN program to find prime number between 50 and 100 using do loop | 7  8 |
|  | 1. Explain the data structures of Alogl-60. 2. Briefly explain the three design dimensions correspond to three dimensions of technology. | 8  7 |
|  | 1. Write a LISP function that will find the property of a-list by its value 2. Explain how storage is reclaimed in LISP? | 7  8 |
|  | 1. What are the steps that must be taken when a message is sent to an object? 2. Explain the three major components of SMALLTALK virtual machine | 7  8 |
|  | 1. Consider one of the favorite programming languages that you have studied in this subject. What focus and actions does it encourage and discourage? Give evidence in both cases 2. Explain the steps that must be completed to perform a subprogram invocation and return | 8  7 |
|  | Write short notes on: **(Any two)**   1. Dynamic scoping 2. Dynamic scoping 3. Class Representation | 2×5  5  5  5 |