## B.Tech. - VIEP - COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination
June, 2014

## BICS-015 : PRINCIPLES OF PROGRAMMING LANGUAGES

## Time: 3 hours

Maximum Marks : 70
Note: Attempt any seven questions from the following. All questions carry equal marks.

1. (a) Explain the process of storage allocation of multidimensional arrays.
(b) Explain the concept of scope of a variable with example.

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5 \times 2=10
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2. Write a program to print the following pattern :

3. (a) Differentiate between object oriented and procedure oriented programming.
(b) Discuss a few areas of application of OOP technology.
$5 \times 2=10$
4. (a) Discuss the concept of function overloading. Give an example of function overloading.
(b) Differentiate between public, private and protected class with example.
$5 \times 2=10$
5. Write short notes on any two of the following : $5 \times 2=10$
(a) File sorting in COBOL
(b) Pointers in $\mathrm{C}++$
(c) Iteration in PROLOG
6. 



Considering above figure network. The class FACULTY derives information from ACCOUNT and ADMIN classes which in turn derive information from the class PERSON. Define all classes and write a program to create and update the information contained in FACULTY objects.
7. (a) Differentiate between while and do-while. loop with example.
(b) Discuss the basics of logical programming. Explain with example.
$5 \times 2=10$
8. (a) Explain the concept of macro expansion in LISP.
(b) Discuss different access specifiers in Java. $5 \times 2=10$
9. (a) Discuss the process of file sorting in COBOL.
(b) Explain the applications of programming language.

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5 \times 2=10
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10. Write short notes on any two of the following : $5 \times 2=10$
(a) Data types in PROLOG
(b) Von Neumann Bottleneck
(c) Base class vs. Derived class
