Total No. of Questions : 8]    [Total No. of Printed Pages : 2

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# CS-602 (GS)

## B.E. VI Semester

Examination, December 2017

## Grading System (GS)

## Principles of Programming Languages

*Time : Three Hours*

*Maximum Marks : 70*

*Note:* i)    Attempt any five questions.

ii)    All questions carry equal marks.

1. How passing play role in a language? What are the different approaches of parsing?

2. What are the different components of the context free grammar used for programming language construction?

3. Why are reference variables in C++ better than pointers for formal parameters?

4. What are the required entries in a Java array descriptor and when must they be stored (at compile time or run time)?

5. If a Java 5.0 generic method is called with three different generic parameters, how many versions of the method will be generated by the complier?

[2]

6. Define *shallow* and *deep binding* for referencing environment of subprograms that have been passed as parameters.

7. What kind of inheritance, single or multiple does Smalltalk support?

8. Answer any four of the following:
   a)    What are three reasons why syntax analyzers are based on grammars?
   b)    How does JavaScript support sparse arrays?
   c)    What are the advantages and disadvantages of static local variables?
   d)    What is an abstract method? What is an abstract class?
   e)    What are the three primary uses of symbolic logic in formal logic?
   f)    What are the differences between a C++ throw specification and a Java throws clause?

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