

**II B. Tech II Semester Regular Examinations, November - 2018****PRINCIPLES OF PROGRAMMING LANGUAGES**

(Com to CSE, IT)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answer **ALL** the question in **Part-A**  
 3. Answer any **FOUR** Questions from **Part-B**
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**PART -A**

1. a) What are general purpose languages? Give some examples. (2M)
- b) List the merits of sub range types. (3M)
- c) Differentiate between procedures and functions. (2M)
- d) What is mutual exclusion? Give example. (2M)
- e) Define procedural abstraction. (2M)
- f) What are terms and atoms in Prolog? (3M)

**PART -B**

2. a) Explain different phases of compilation. (7M)
- b) Write BNF notation for 'for loop', 'if-else condition' and structure definition in C. (7M)
3. a) Is static binding more reliable or dynamic binding? Explain why. (7M)
- b) Present the classification of arrays based on subscript binding. Give programming examples. (7M)
4. a) Discuss about pass-by-result and pass-by-value-result parameter passing methods, with a detailed programming example for each. (7M)
- b) Discuss about deep access and shallow access methods for implementing dynamic scoping. (7M)
5. a) Discuss how producer consumer problem can be solved using concurrency in Java. (7M)
- b) Discuss about exception handling in C++. (7M)
6. a) Write about functional forms in LISP. (7M)
- b) Give a comparison between ML and Haskell. (7M)
7. a) Explain about the inferencing process of Prolog. (7M)
- b) List and explain the applications of logic programming. (7M)

