

Code No: RT31053

R13**SET - 1****III B. Tech I Semester Supplementary Examinations, May - 2018****PRINCIPLES OF PROGRAMMING LANGUAGES**

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

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

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|---|----|--|------|
| 1 | a) | What are general purpose languages? Give some examples. | [3M] |
| | b) | Write a brief note on aliases. | [4M] |
| | c) | Differentiate between procedures and functions. | [4M] |
| | d) | Explain about cooperation synchronization with monitors. | [4M] |
| | e) | Define domain set and range set w.r.to functional languages. | [3M] |
| | f) | Define declarative semantics. | [4M] |

PART -B

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|---|----|--|------|
| 2 | a) | Explain different phases of compilation. | [8M] |
| | b) | Discuss about language recognizers and language generators. | [8M] |
| 3 | a) | Explain about evaluation of static scope and dynamic scope. | [8M] |
| | b) | Write notes on coercion expressions and short-circuit evaluation. | [8M] |
| 4 | a) | Discuss about pass-by-result and pass-by-value-result parameter passing methods, with a detailed programming example for each. | [8M] |
| | b) | Write about generic subprograms in Ada and C++. | [8M] |
| 5 | a) | Explain different design issues for object oriented languages. | [8M] |
| | b) | Write about event handling in Java. | [8M] |
| 6 | a) | Write about functional forms in LISP. | [8M] |
| | b) | What are the applications of functional languages? Give a comparison between functional and imperative languages. | [8M] |
| 7 | a) | Explain about first-order predicate calculus. | [8M] |
| | b) | Discuss about fact statements and rule statements in Prolog. | [8M] |
