

ST. ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY: CHIRALA
DEPARTMENT OF COMPUTERSCIENCE & ENGINEERING

LECTURE SCHEDULE

SUBJECT: Principles of Programming Languages

ACADEMIC YEAR: 2018-19

NAME: M. Lakshmi Bai

YEAR & SEM/SECTION: II-II 'B'

No. of Lectures per week : 4+1* (Tutorial)

| S. NO | DATE | UNIT | TOPICS |
|-------|-----------|------|---|
| 1 | 19-Nov-18 | I | Evolution of programming languages |
| 2 | 20-Nov-18 | | describing syntax |
| 3 | 20-Nov-18 | | Context Free Grammars |
| 4 | 23-Nov-18 | | attribute grammars |
| 5 | 24-Nov-18 | | describing semantics |
| 6 | 26-Nov-18 | | describing semantics |
| 7 | 27-Nov-18 | | Lexical analysis |
| 8 | 27-Nov-18 | | Parsing recursive – decent |
| 9 | 28-Nov-18 | | bottom - up parsing |
| 10 | 30-Nov-18 | | bottom - up parsing |
| 11 | 1-Dec-18 | | Revision |
| 12 | 3-Dec-18 | | Slip Test-1 |
| 13 | 4-Dec-18 | II | Names, variables, binding |
| 14 | 4-Dec-18 | | Tutorial |
| 15 | 5-Dec-18 | | type checking, scope, scope rules, |
| 16 | 7-Dec-18 | | primitive data types |
| 17 | 8-Dec-18 | | lifetime and garbage collection, |
| 18 | 10-Dec-18 | | strings, array types, associative arrays |
| 19 | 11-Dec-18 | | Tutorial |
| 20 | 11-Dec-18 | | record types, union types |
| 21 | 12-Dec-18 | | pointers and references, Arithmetic expressions |
| 22 | 14-Dec-18 | | mixed mode assignments |
| 23 | 15-Dec-18 | | overloaded operators, type conversions |
| 24 | 17-Dec-18 | | relational and boolean expressions, assignment statements |
| 25 | 18-Dec-18 | III | control structures – selection, |
| 26 | 18-Dec-18 | | Tutorial |
| 27 | 19-Dec-18 | | iterations, branching, guarded Statements |
| 28 | 21-Dec-18 | | Revision |
| 29 | 22-Dec-18 | | Slip Test-II |
| 30 | 26-Dec-18 | | Subprograms, |
| 31 | 28-Dec-18 | | design issues, local referencing |
| 32 | 29-Dec-18 | | parameter passing, overloaded methods |
| 33 | 31-Dec-18 | | generic methods, design issues for functions |
| 34 | 2-Jan-19 | | semantics of call and return |
| 35 | 4-Jan-19 | | implementing simple subprograms |
| 36 | 5-Jan-19 | | implementing simple subprograms |
| 37 | 7-Jan-19 | | stack and dynamic local variables |
| 38 | 8-Jan-19 | | Tutorial |
| 39 | 8-Jan-19 | | Nested subprograms |
| 40 | 9-Jan-19 | | Dynamic scoping |
| 41 | 11-Jan-19 | | Dynamic scoping |
| 42 | 17-Jan-19 | | Revision (mid-2) |
| 43 | 18-Jan-19 | | Revision (mid-2) |
| 44 | 21-Jan-19 | | Revision (mid-2) |

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| 46 | 22-Jan-19 | IV | Revision (mid-2) |
| 47 | 22-Jan-19 | | Revision (mid-2) |
| 48 | 23-Jan-19 | | Revision (mid-2) |
| 49 | 25-Jan-19 | | Object – orientation |
| 50 | 28-Jan-19 | | design issues for OOP languages |
| 51 | 29-Jan-19 | | Tutorial |
| 52 | 29-Jan-19 | | implementation of object oriented constructs |
| 53 | 30-Jan-19 | | implementation of object oriented constructs |
| 54 | 1-Feb-19 | | Concurrency |
| 55 | 2-Feb-19 | | Semaphores,Monitors |
| 56 | 4-Feb-19 | | message passing |
| 57 | 5-Feb-19 | | Tutorial |
| 58 | 5-Feb-19 | | Threads |
| 59 | 6-Feb-19 | | statement level concurrency |
| 60 | 8-Feb-19 | | exception handling |
| 61 | 11-Feb-19 | | Event handling |
| 62 | 12-Feb-19 | | Revision |
| 63 | 12-Feb-19 | | Tutorial |
| 64 | 13-Feb-19 | | SLIP-TEST-IV |
| 65 | 15-Feb-19 | V | Introduction to lambda calculus, |
| 66 | 16-Feb-19 | | fundamentals of functional programming languages |
| 67 | 18-Feb-19 | | fundamentals of functional programming languages |
| 68 | 19-Feb-19 | | Tutorial |
| 69 | 19-Feb-19 | | Programming with Scheme |
| 70 | 20-Feb-19 | | Programming with Scheme |
| 71 | 22-Feb-19 | | Programming with ML, |
| 72 | 23-Feb-19 | | Programming with ML, |
| 73 | 25-Feb-19 | | Programming with ML, |
| 74 | 26-Feb-19 | | Tutorial |
| 75 | 26-Feb-19 | | Revision |
| 76 | 27-Feb-19 | | SLIP-TEST-V |
| 77 | 1-Mar-19 | VI | Introduction to logic programming |
| 78 | 2-Mar-19 | | logic programming languages |
| 79 | 5-Mar-19 | | Programming with Prolog, |
| 80 | 5-Mar-19 | | Tutorial |
| 81 | 6-Mar-19 | | Programming with Prolog, |
| 82 | 8-Mar-19 | | Programming with Prolog, |
| 83 | 11-Mar-19 | | multi - paradigm languages |
| 84 | 12-Mar-19 | | multi - paradigm languages |
| 85 | 12-Mar-19 | | Revision |
| 86 | 13-Mar-19 | | Revision |
| 87 | 15-Mar-19 | | Revision |
| 88 | 16-Mar-19 | | Revision |
| 89 | 18-Mar-19 | | Revision |
| 90 | 19-Mar-19 | | Revision |
| 91 | 19-Mar-19 | | Revision |
| 92 | 20-Mar-19 | | Revision |
| 93 | 23-Mar-19 | | Revision |
| 94 | 25-Mar-19 | | Revision(mid-2) |
| 95 | 26-Mar-19 | | Revision(mid-2) |
| 96 | 26-Mar-19 | | Revision (mid-2) |

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| 97 | 27-Mar-19 | | Revision (mid-2) |
| 98 | 29-Mar-19 | | Revision (mid-2) |
| 99 | 30-Mar-19 | | Revision (mid-2) |

TEXT BOOKS:

1. Robert W. Sebesta, "Concepts of Programming Languages", Tenth Edition, Addison Wesley, 2012.
2. Programming Languages, Principles & Paradigms, 2ed, Allen B Tucker, Robert E Noonan, TMH

REFERENCES:

1. R. Kent Dybvig, "The Scheme programming language", Fourth Edition, MIT Press, 2009.
2. Jeffrey D. Ullman, "Elements of ML programming", Second Edition, Prentice Hall, 1998.
3. W. F. Clocksin and C. S. Mellish, "Programming in Prolog: Using the ISO Standard", Fifth Edition, Springer, 2003.

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