| Government Polytechnic, Mandi Adampur |  |  |  |  |
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| Name of Faculty: Sh. Ravinder Kumar |  |  |  |  |
| Discipline: Computer Engg. |  |  |  |  |
| Semester: 3 |  |  |  |  |
| Subject: Computer Programming using C |  |  |  |  |
| Lesson Plan Duration: 18 Weeks |  |  |  |  |
| Week |  | Theory |  | Practical |
|  | Lecture Day | Topic | Practical Day | Topic |
| Week 1 | Day 1 | Unit 1: Algorithm and Programming Development | day 1 | Programming exercises on executing and editing a C program |
|  | Day 2 | Steps in development of a program |  |  |
|  | Day 3 | Steps in development of a program |  |  |
|  | Day 4 | Flow charts, Algorithm development |  |  |
| Week 2 | Day 5 | Programme Debugging | day 2 | Programming exercises on defining variables and assigning values to variables. |
|  | Day 6 | Test Unit 1 |  |  |
|  | Day 7 | Unit 2: Program Structure |  |  |
|  | Day 8 | I/O statements |  |  |
| Week 3 | Day 9 | assign statements | day 3 | Programming exercises on arithmetic and relational operators |
|  | Day10 | Constants, variables |  |  |
|  | Day 11 | data types |  |  |
|  | day 12 | Operators |  |  |
| Week 4 | day 13 | Expressions | day 4 | Programming exercises on arithmetic expressions and their evaluation |
|  | day 14 | Standards |  |  |
|  | day 15 | Formatted IOS |  |  |
|  | day 16 | Data Type Casting |  |  |
| Week5 | day 17 | Revision and problem discussion | day 5 | Programming exercises on formatting input/output using printf and scanf and their return type values. |
|  | day 18 | Test Unit 2 |  |  |
|  | day 19 | Unit 3: Control Structures |  |  |
|  | day 20 | Introduction |  |  |
| Week 6 | days 21 | Decision making with IF - statement | day 6 | Programming exercises using if statement. |
|  | days 22 | Revision and problem discussion |  |  |
|  | days 23 | IF - Else |  |  |
|  | day 24 | Nested IF |  |  |
| Week 7 | day 25 | While loop | day 7 | Programming exercises using if Else. |
|  | days 26 | do-while |  |  |
|  | day27 | for loop |  |  |
|  | day28 | Break. Continue statement |  |  |
| Week 8 | day29 | goto | day 8 | Programming exercises on switch statement. |
|  | day30 | switch statements |  |  |
|  | day 31 | Test Unit 3 |  |  |
|  | day32 | Unit 4: Pointers |  |  |
| Week 9 | day33 | Introduction to Pointers | day9 | File Check |


|  | day 34 | Address operator and pointers |  |  |
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|  | day 35 | Revision and problem discussion |  |  |
|  | day36 | Declaring and Initializing pointers |  |  |
| Week 10 | day 37 | Single pointer | day 10 | Programming exercises on do while, statement. |
|  | day38 | Revision and problem discussion |  |  |
|  | day39 | Test Unit 4 |  |  |
|  | day 40 | Unit 5: Functions |  |  |
| Week 11 | day 41 | Introduction to functions | day 11 | Programming exercises on for statement. |
|  | day 42 | Global and Local Variables |  |  |
|  | day 43 | Global and Local Variables |  |  |
|  | day 44 | Revision and problem discussion |  |  |
| Week 12 | day 45 | Function Declaration | day 12 | Programs on one-dimensional array. |
|  | Day 46 | Standard functions |  |  |
|  | Day 47 | Revision and problem discussion |  |  |
|  | day 48 | Parameters |  |  |
| Week 13 | day 49 | Parameter Passing | day 13 | Programs on two-dimensional array. |
|  | Day 50 | Parameter Passing |  |  |
|  | Day 51 | Revision and problem discussion |  |  |
|  | day 52 | Call - by value/reference |  |  |
| Week 14 | day 53 | Call - by value/reference | day 14 | (i) Programs for putting two strings together. <br> (ii) Programs for comparing two strings. |
|  | Day 54 | Revision and problem discussion |  |  |
|  | Day 55 | Test Unit 5 |  |  |
|  | day 56 | Unit 6: Arrays |  |  |
| Week 15 | day 57 | Introduction to Arrays | day 15 | Simple programs using structures. |
|  | Day 58 | Array Declaration |  |  |
|  | Day 59 | Revision and problem discussion |  |  |
|  | day 60 | Length of array |  |  |
| Week 16 | day 61 | Single and Multidimensional Array | day 16 | Simple programs using pointers. |
|  | Day 62 | Single and Multidimensional Array |  |  |
|  | Day 63 | Revision and problem discussion |  |  |
|  | day 64 | Arrays of characters |  |  |
| Week 17 | day 65 | Arrays of characters | day 17 | Simple programs using union. |
|  | Day 66 | Passing an array to function |  |  |
|  | Day 67 | Passing an array to function |  |  |
|  | day 68 | Revision and problem discussion |  |  |
| Week 18 | day 69 | Pointers to an array | day 18 | File Check |
|  | Day 70 | Pointers to an array |  |  |
|  | Day 71 | Revision and problem discussion |  |  |
|  | day 72 | test Unit 5 |  |  |

