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| **GBN Govt. Polytechnic Nilokheri** | | | | |
| Name of Faculty: Atul Kumar | | | | |
| Discipline: Electronics and Communication Engg. | | | | |
| Semester: 3 | | | | |
| Subject: Computer Programming using C | | | | |
| Lesson Plan Duration: 15 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 |
| day15 | Formatted IOS |
| day 16 | Data Type Casting |
| **Week5** | day17 | Revision and problem discussion | day 5 | Programming exercises on formatting input/output using  printf and scanf and their return type values. |
| day 18 | **1st sessional test** |
| 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** | day25 | 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 |

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|  | day 34 | Address operator and pointers |  |  |
| 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 | **2nd sessional test** |
| 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 | 1. Programs for putting two strings together. 2. Programs for comparing two strings. |
| Day 54 | Revision and problem discussion |
| Day 55 | **3rd sessional test** |
| day 56 | Unit 6: Arrays, Single and  Multidimensional Array |
| **Week 15** | day 57 | Introduction to Arrays, Array of characters, Passing an array to function | day 15 | Simple programs using structures. |
| Day 58 | Array Declaration, Pointers to an array |
| Day 59 | Revision and problem discussion |
| day 60 | Length of array |
| day 64 | Arrays of characters |
| day 68 | Revision and problem discussion |