

# GOVT. POLYTECHNIC. KORAPUT

## LESSON PLAN (COMPUTER APPLICATION)

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| Discipline:<br><b>MATH &amp;<br/>SCIENCE</b>          | Semester:<br><b>1<sup>st</sup><br/>SEMESTER</b>  | <b>NAME OF THE TEACHING FACULTY: SHRI RUDRA PRASAD SABAR, PTGF IN COMPUTER APPLICATION</b>                       |   |
| Subject:<br>Comp<br>Appl.<br>Sub code:<br><b>TH1b</b> | No of days<br>/week class<br>allotted: <b>06</b> | <b>SEMESTER FROM DATE: 16/08/2023</b>  | <b>TO DATE: 11/12/2023</b>  |
|   |  | <b>NO.OF WEEKS: 15</b>   |   |
| <b>Week</b>   | <b>Class Day</b>                                 | <b>Theory</b>  | <b>Practical</b>  |
| 1 <sup>st</sup>                                       | 1 <sup>st</sup>                                  | Introduction to Computer, Evolution of Computers ,Generation of Computers ,Classification of Computers           | Identification of different components of Computer ,Switch on and Booting Process ,Shut down, Restart of computer   |
|   | 2 <sup>nd</sup>                                  | Generation of Computers ,Classification of Computers   | Study of device and power supply form factor of Personal Computer System  |
|   | 3 <sup>rd</sup>                                  | Basic Organisation of Computer (Functional Block diagram) Input Devices,   | Identification of various Mother Board components and Identification of different Ports   |
|   | 4 <sup>th</sup>                                  | CPU & Output Devices. Computer Memory and Classification of Memory   | Types of connectors, and their purpose  |
| 2 <sup>nd</sup>                                       | 1 <sup>st</sup>                                  | Software concept, System software, Application software  | Cooling System of Processor and Case Identification   |
|   | 2 <sup>nd</sup>                                  | Overview of Operating System Objectives and Functions of O.S ,   | Study of ROM, RAM, Adapter Cards, Expansion Slots, SATA connectors  |
|   | 3 <sup>rd</sup>                                  | Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS Features of DOS, Windows and UNIX | Study of Adapters and Converters  |
|   | 4 <sup>th</sup>                                  | Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS Features of DOS, Windows and UNIX | Study of various types of LAB Safety measures (General Safety, Electrical Safety, Fire safety)  |
| 3 <sup>rd</sup>                                       | 1 <sup>st</sup>                                  | Programming Languages, Compiler, interpreter Computer Virus  | Analysis of various Power Fluctuation Types (Blackout, Brownout, Noise, Spike, Power surge), Power Protection Devices (Surge suppressor, UPS, Standby power supply) |
|   | 2 <sup>nd</sup>                                  | Different Types of computer virus  | Procedures for proper disposal or recycling of hazardous computer components (Batteries, Monitors, Toner Kits, Cartridges, Chemical Solvents and Aerosol Cans)      |
|   | 3 <sup>rd</sup>                                  | Detection and prevention of Virus Application of computers in different Domain                                   | Study of General Lab Tools (ESD tools, Hand tools, cable tools, Cleaning tools, Diagnostic tools), Disk Management Tools  |
|   | 4 <sup>th</sup>                                  | Revision and doubt clearing class  | Basic DOS commands (CLS,DIR,DATE,TIME,VERSION,MD,CD,RD,DEL,COPY,REN, USE OF WILD CARDS, PATH)   |
| 4 <sup>th</sup>                                       | 1 <sup>st</sup>                                  | Networking concept, Protocol, Connecting Media, Data Transmission mode   | Basic DOS commands (CLS,DIR,DATE,TIME,VERSION,MD,CD,RD,DEL,COPY,REN, USE OF WILD CARDS, PATH)   |

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|                  | 2 <sup>nd</sup> | Network Topologies, Types of Network  | Basic DOS commands (CLS, DIR, DATE, TIME, VERSION, MD, CD, RD, DEL, COPY, REN, USE OF WILD CARDS, PATH)                         |
|                  | 3 <sup>rd</sup> | Networking Devices like Hub, Repeater, Switch, Bridge, Router, Gateway & NIC            | Basic Windows OS operations, MOUSE OPERATIONS, Utilities and Accessories, Installation and configuration of OS                  |
|                  | 4 <sup>th</sup> | Internet Services like E-Mail, WWW, FTP, Chatting, Internet Conferencing,               | Basic Windows OS operations, MOUSE OPERATIONS, Utilities and Accessories, Installation and configuration of OS                  |
| 5 <sup>th</sup>  | 1 <sup>st</sup> | Electronic Newspaper & Online Shopping Different types of Internet connectivity and ISP | Basic operations of Word Processing Package. (MS-Word) .  |
|                  | 2 <sup>nd</sup> | Doubt Clearing classes  | Basic operations of Word Processing Package. (MS-Word)  |
|                  | 3 <sup>rd</sup> | Concept of File and Folder  | Basic operations of Word Processing Package. (MS-Word) Assignment on MS-WORD  |
|                  | 4 <sup>th</sup> | File Access and Storage methods. Sequential, Direct, ISAM                               | Basic operations of Electronic Spread Sheet Package. (MS-Excel).  |
| 6 <sup>th</sup>  | 1 <sup>st</sup> | File Access and Storage methods. Sequential, Direct, ISAM                               | Basic operations of Electronic Spread Sheet Package. (MS-Excel).  |
|                  | 2 <sup>nd</sup> | Data Capture, Data storage  | Basic operations of Electronic Spread Sheet Package. (MS-Excel).Assignment on Excel   |
|                  | 3 <sup>rd</sup> | Data Processing and Retrieval   | Basic operations of Presentation Package (MS- Power point)  |
|                  | 4 <sup>th</sup> | Algorithm, Pseudo code  | Basic operations of Presentation Package (MS- Power point)  |
| 7 <sup>th</sup>  | 1 <sup>st</sup> | Flowchart Generation of Programming Languages Structured Programming Language           | Basic operations of Presentation Package (MS- Power point) (Create, Edit, Format, Save, Print/View in the above three packages) |
|                  | 2 <sup>nd</sup> | Flowchart to find the greatest number among three numbers                               | Getting acquainted with Internet connection, Browser, Website URL, Webpage, http, WWW, Net browsing                             |
|                  | 3 <sup>rd</sup> | Flowchart to find the average of n numbers  | Creating E-Mail Id, sending and receiving E-mail Chatting   |
|                  | 4 <sup>th</sup> | Flowchart to determine whether a number is prime or not                                 | CISCO-IT Essential exam Chapter-1   |
| 8 <sup>th</sup>  | 1st             | Flowchart to check whether a given number is palindrome or not?                         | CISCO-IT Essential exam Chapter-2 & 3   |
|                  | 2 <sup>nd</sup> | Flowchart to compute the sine series.   | CISCO-IT Essential exam Chapter-4 & 5   |
|                  | 3 <sup>rd</sup> | Constants, Variables  | CISCO-IT Essential exam Chapter-6 & 7   |
|                  | 4 <sup>th</sup> | Data types in C Managing Input and Output operations.                                   | CISCO-IT Essential exam Chapter-8 & 9   |
| 9 <sup>th</sup>  | 1 <sup>st</sup> | Data types in C Managing Input and Output operations.                                   | CISCO-IT Essential exam Chapter-10 & 11   |
|                  | 2 <sup>nd</sup> | Data types in C Managing Input and Output operations.                                   | CISCO-IT Essential exam Chapter-12 & 13   |
|                  | 3 <sup>rd</sup> | Operators   | CISCO-IT Essential exam Chapter-14  |
|                  | 4 <sup>th</sup> | Operators   | Final Exam ch-1 to 9  |
| 10 <sup>th</sup> | 1 <sup>st</sup> | Operators   | Final Exam ch-10 to 14  |
|                  | 2 <sup>nd</sup> | Operators   | Feed back and composite final exam ch-1 to 14.  |
|                  | 3 <sup>rd</sup> | Expressions   | Feed back and composite final exam ch-1 to 14.  |

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|                  | 4 <sup>th</sup> | Type conversion & Typecasting   | Certificate distribution on successful completion.  |
| 11 <sup>th</sup> | 1 <sup>st</sup> | Type conversion & Typecasting   | Familiar with Turbo C++ s/w.  |
|                  | 2 <sup>nd</sup> | Decision Control and Looping Statements   | Write a Program in C to find the greatest number among three numbers.   |
|                  | 3 <sup>rd</sup> | Decision Control and Looping Statements   | Write a Program in C to find the greatest number among three numbers.   |
|                  | 4 <sup>th</sup> | Decision Control and Looping Statements (If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Goto) | Write a Program in C to find the greatest number among three numbers.   |
| 12 <sup>th</sup> | 1 <sup>st</sup> | Write a Program in C to find the greatest number among three numbers.   | Write a Program in C to find the average of n numbers by using for loop   |
|                  | 2 <sup>nd</sup> | Write a Program in C to find the average of n numbers by using for loop.  | Write a Program in C to find the average of n numbers by using for loop.  |
|                  | 3 <sup>rd</sup> | Write a program in C to determine whether a number is prime or not?   | Write a program in C to determine whether a number is prime or not?   |
|                  | 4 <sup>th</sup> | Functions and Passing Parameters to the Function (Call by Value and Call by Reference)                                  | Write a program in C to determine whether a number is prime or not?   |
| 13 <sup>th</sup> | 1 <sup>st</sup> | Scope of Variables and Storage Classes  | Write a program in C to check whether a given number is palindrome or not?                                      |
|                  | 2 <sup>nd</sup> | Recursion Function and Types of Recursion   | Write a program in C to compute the sine series   |
|                  | 3 <sup>rd</sup> | One Dimensional Array and Multidimensional Array  | Write a program in C to accept row wise and column wise element in a two dimensional array & print them.        |
|                  | 4 <sup>th</sup> | String Operations.  | Write a program in C to find the vowels in a given string   |
| 14 <sup>th</sup> | 1 <sup>st</sup> | Pointers Pointer Expression and Pointer Arithmetic Programming Assignments using the above features                     | Write a program in C to find the factorial of a number, by using recursion                                      |
|                  | 2 <sup>nd</sup> | Pointers Pointer Expression and Pointer Arithmetic Programming Assignments using the above features                     | Write a program in C to find the sum of Fibonacci series, by using function.                                    |
|                  | 3 <sup>rd</sup> | Structure and Union (Only concepts, No Programming)   | Write a program in C to accept a number from keyboard and print it in reverse order of entry, by using function |
|                  | 4 <sup>th</sup> | DOUBT CLEARING CLASSES.   | LAB PRACTICE .  |
| 15 <sup>th</sup> | 1 <sup>st</sup> | CLASS TEST.   | LAB PRACTICE .  |
|                  | 2 <sup>nd</sup> | CLASS TEST.   | LAB PRACTICE .  |
|                  | 3 <sup>rd</sup> | CLASS TEST  | LAB PRACTICE .  |
|                  | 4 <sup>th</sup> | CLASS TEST  | LAB PRACTICE .  |

  
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