**SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL**

**LESSON-PLAN**

**Class: BCA 1st year Semester: ODD**

**Subject: Computer Fund and Prog C Session: 2020-21**

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| **Lecture Number** | **Topic** |
| **1-5** | Computer Fundamentals: Generations of Computers, Definition, Block Diagram along with its components, characteristics & classification of computers |
| **6-10** | Limitations of Computers, Human-Being VS Computer, Applications of computers in various fields |
| **11-20** | Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM, Cache Memory, flash memory |
| **21-30** | Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. |
| **31-35** | Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. |
| **36-45** | Overview of operating system: Definition, functions of operating system, concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time, single-user & multi-user operating system. |
| **45-52** | Computer Virus: Definition, types of viruses, Characteristics of viruses, anti-virus software.  Computer Languages: Analogy with natural language, machine language, assembly language |
| **53-60** | high-level languages, forth generation languages, compiler, interpreter, assembler, Linker, Loader , characteristics of a good programming language, Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation.. |
| **61-65** | Structured programming concepts, Programming methodologies viz. top-down and bottomup programming, Advantages and disadvantages of Structured programming |
| **66-70** | Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies, Modes of data transmission, Forms of data transmission, Transmission channels(media), |
| **70-75** | Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet. |

**Signature:**