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EXAMINATION: MAY- 2025

SEMESTER - II

Sub.: Basics of Computers (BBA22-216)

Date : 26/05/2025

Total Marks : 60

Time: 10.00am to 12.30pm

Instructions: 1) All questions are compulsory.
 2) Figures to the right indicate full marks.

Q. 1. Choose the most appropriate option. (05)

1. _____ allow a multiple users to access a computer system concurrently.
 a) Multi user operating system b) Single user operating system
 c) Multi-tasking operating system d) Single-tasking Operating Systems
2. _____ is also known as 'ILOVEYOU' virus.
 a) Chernobyl virus b) Love bug virus
 c) Melisa virus d) Trojan
3. _____ is malicious software which encrypts victim's data, making it inaccessible and demands ransom payment for its description.
 a) Worm b) Trojan horse
 c) Malware d) Ransomeware
4. In _____, single program is allowed to run at a time.
 a) multi-tasking operating system b) single-tasking operating systems
 c) single user operating system d) multi user operating system
5. _____ is a legitimate malware application to trick users into downloading and installing it.
 a) Trojan horse b) Boot sector virus
 c) Ransomeware d) Worm

Q. 2. State True / False (05)

1. Computers are not versatile.
 a) True b) False
2. Antivirus software detects all malwares, worms, Trojans and ransom wares.
 a) True b) False
3. Embedded operating systems are designed to operate on small machines like PDAs with less autonomy.
 a) True b) False
4. Hardware is a collection of programs which utilize and enhance the capability of the software.
 a) True b) False
5. An operating system that manages a group of independent computers and makes them appear to be a single computer is known as a distributed operating system.
 a) True b) False

Q. 3. Write Short notes on (Any Three) (15)

1. Hardware.
2. Limitations of computers.
3. ROM.
4. Output devices.
5. Computer Virus.

- Q. 4. Answer in detail (Any Two) (20)**
1. Write a note on classification of computers.
 2. Explain the term application software in detail.
 3. Write a note on applications of computers.
 4. What are the functions of operating system?

Q. 5. Case study (15)

The first generation computers made use of: Vacuum tube technology, Punched cards for data input, Punched cards and paper tape for output, Machine Language for writing programs, Magnetic tapes and drums for external storage. The computers of the first generation were very bulky and emitted large amount of heat which required air conditioning. They were large in size and cumbersome to handle. They had to be manually assembled and had limited commercial use. The concept of operating systems was not known at that time. Each computer had a different binary coded program called a machine language that told it how to operate.

In the second generation computers: Vacuum tube technology was replaced by transistorized technology, Size of the computers started reducing, Assembly language started being used in place of machine language, Concept of stored program emerged, High level languages were invented. This was the generation of Transistorized Computers. Vacuum tubes were replaced by transistors. As a result, the size of the machines started shrinking. These computers were smaller, faster, more reliable and more energy efficient. The first transistorized computer was TX-0. The first large scale machines that took advantage of the transistor technology were the early supercomputers, Stretch by IBM and LARC by Sperry Rand. These machines were mainly developed for atomic energy laboratories. Typical computers of the second generation were the IBM 1400 and 7000 series, Honeywell 200 and General Electric.

The third generation computers were characterized by: Use of Integrated circuits, Phenomenal increase in computation speed, Substantial reduction in size and power consumption of the machines, Use of magnetic tapes and drums for external storage, Design of Operating systems and new higher level languages, Commercial production of computers. This generation was characterized by the invention of Integrated Circuits (ICs). The IC combined electronic components onto a small chip which was made from quartz.

The general features of the fourth generation computers were: Use of Very Large Scale Integration, Invention of microcomputers, Introduction of Personal Computers, Networking, Fourth Generation Languages. The Fourth Generation realized Large Scale Integration (LSI) which could fit hundreds of components on one chip and Very Large Scale integration (VLSI) which squeezed thousand of components on one chip. The Intel 4004 chip, located all the components of a computer (central processing unit, memory, input and output controls) on a single chip and microcomputers were introduced. Higher capacity storage media like magnetic disks were developed. Fourth generation languages emerged and applications software's started becoming popular.

Defining the fifth generation computers is somewhat difficult because the field is still in its infancy. The computers of tomorrow would be characterized by Artificial Intelligence (AI). An example of AI is Expert Systems. Computers could be developed which could think and reason in much the same way as humans. Computers would be able to accept spoken words as input (voice recognition). Many advances in the science of computer design and technology are coming together to enable the creation of fifth generation computers. Two such advances are parallel processing where many CPUs work as one and advance in superconductor technology which allows the flow of electricity with little or no resistance, greatly improving the speed of information flow.

Question

- 1) What technology was replaced by third generation of computers?
- 2) Explain first generation of computers.
- 3) Describe fifth generation of computers.