

## IMSc. CSF (NEP) Sem.-1 Examination

## DSC-C-ICSF-111T

## Fundamentals of ICT

Time : 2-00 Hour]

February-2025

[Max. Marks : 50

**Question 1 Answer the following questions:**

- i. What is an Operating System and What are Its Key Functions? 5Marks
- ii. Explain Booting Process in detail. 5Marks

**OR**

- i. Differentiate between System Software and Application Software. 5Marks
- ii. What distinguishes freeware from shareware in terms of usage, cost, and distribution? 5Marks

**Question 2 Answer the following questions:**

- i. What is computer networking? Explain its key components. 5Marks
- ii. Explain OSI model and its layers in detail. 5Marks

**OR**

- i. Explain TCP/IP Model in detail. 5Marks
- ii. What is a Switch? Describe its Types. 5Marks

**Question 3 Answer the following questions:**

- i. Illustrate Primary Memory, Secondary Memory and Cache Memory in detail. 5Marks
- ii. Explain flash memory devices and optical storage devices in detail. 5Marks

**OR**

- i. Compare multiple aspects of RAM, Swap, Virtual Memory and Cache. 5Marks
- ii. What is RAID? Explain types of RAID. 5Marks

**Questions 4 Answer the following questions:**

- i. What is Virtualization? Give its advantages. 5Marks
- ii. Describe Hypervisors and its types. 5Marks

**OR**

- i. Differentiate between Virtualization and Cloud Computing 5Marks
- ii. Explain VMware and VirtualBox. 5Marks

**Questions 5: Attempt any Ten out of Twelve.**

10 Marks

1. What is multi-threading?
2. What is Command Line Interface?
3. What is Hard Booting?
4. What does BIOS stand for?
5. What is DHCP?
6. What is Extended File System?

E1610A-2

7. IPv6 uses a \_\_\_\_\_ bit address format.
8. What is Node in network?
9. List out the layers of OSI model.
- 10 How many ports are there in the system?
- 11 What are PoE switches?
- 12 Convert the given units. 2 Kilobyte = \_\_\_\_\_ Bytes

.....X.....X.....