

**University of Ruhuna- Faculty of Technology**  
**Bachelor of Engineering Technology Honors Degree**  
**Level I (Semester I) Examination, June/July 2023**  
**Academic year 2021/2022**

**Course Unit: TMS1132 Computer Fundamentals and PC Applications (Written)**

**Duration: 1 hour**

**IMPORTANT INSTRUCTIONS:**

1. The medium of this examination is English.
2. This is a closed book examination.
3. This question paper contains **two (02) pages** including this instruction page.
4. This examination consists of **two (02) questions** that are given equal marks.
5. All symbols have their usual meanings.
6. Answer all the questions.

1)

- a) Define the two terms "**data**" and "**information**". (04 marks)
- b) State two (02) types of **technologies of multimedia projectors** and list two (02) features for each. (06 marks)
- c) Name three (03) **access methods** of storage devices? (06 marks)
- d) Explain three (03) main operations of the **Central Processing Unit (CPU)**. (09 marks)
- e) List down five (05) components of a **computer system**. (10 marks)
- f) **Draw the instruction cycle** and briefly describe the **fetch cycle**. (10 marks)
- g) What are the two (02) types of **computer memory**? Write down two (02) features for each memory type. (10 marks)
- h) Identify three (03) functional groups of **system buses** and briefly describe two (02) of them. (15 marks)
- i) Write down five (05) **generations of computer** and describe the technologies used in each generation. (15 marks)
- j) List three (03) features that differentiate a supercomputer from a mainframe computer. (15 marks)

2)

- a) Name three (03) **modulation techniques** and describe briefly one of them. (12 marks)
- b) List three (03) pros and three (03) cons of **Peer-2-Peer Network**. (12 marks)
- c) Identify three (03) commonly used **network topologies**. (12 marks)
- d) Draw the **client/server structure of a web** and briefly describe it. (10 marks)
- e) Mention three (03) key **security objectives** of computer security. (06 marks)
- f) State three (02) **challenges** of computer security. (06 marks)
- g) What are the five (05) types of **malwares**? (10 marks)
- h) Write down five (05) main functions of an **operating system**. (15 marks)
- i) Briefly describe the **file management** of an operating system. (05 marks)
- j) Give two (02) advantages and two (02) disadvantages of a **Client/Server Network**. (12 marks)

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