



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PHARMACY

FIRST BPHARM PART I EXAMINATION – JULY/AUGUST 2026

PH 1163 INFORMATION TECHNOLOGY – SEQ

TIME: ONE HOUR

INSTRUCTIONS

- There are two questions in parts A and B of this SEQ paper.
- Answer all questions.
- Use illustrations where necessary.
- Do not use any correction fluid.
- No paper should be removed from the examination hall.
- Mobile phones and calculators are not permitted.

PART A

01.

1.1 Computer hardware encompasses a diverse set of components that collectively enable input, processing, storage, and output operations. These include devices for input data (such as pointing, typing, audio-capturing, and imaging tools), devices for output information (visual screens, projectors, printers, and audio speakers), internal processing units that execute instructions, and various storage media ranging from high-speed primary memory to permanent secondary memory. This integrated component of hardware ensures that computers can efficiently handle everything from basic user interactions to complex computational tasks.

- 1.1.1 List down the four (04) input devices. (10 marks)
- 1.1.2 Describe the purpose of the input devices. (05 marks)
- 1.1.3 List down the four (04) output devices (10 marks)
- 1.1.4 Describe the purpose of the output devices. (05 marks)
- 1.1.5 Primary memory and Secondary memory are the main types of memory in the computer.
- 1.1.5.1 Briefly explain the role of the Primary Memory. (2.5 marks)
- 1.1.5.2 List four (04) features of the Primary Memory. (2.5 marks)
- 1.1.5.3 Briefly explain the role of the Secondary Memory. (2.5 marks)
- 1.1.5.4 List four (04) features of the Secondary Memory. (2.5 marks)
- 1.1.6 Provide examples for Primary memory and Secondary memory by completing the table below. (04 marks)

No	Primary Memory	Secondary Memory
1		
2		
3		
4		

- 1.1.7 Write the components in the **Central Processing Unit** and briefly explain the role of the **Central Processing Unit**. (10 marks)
- 1.1.8 How do you apply the tools and techniques in information technology for drug discovery and development process? Describe four methods. (06 marks)
- 1.2
- 1.2.1 Write the main categories of software. (04 marks)
- 1.2.2 Describe separately about the functionality and usage of each main category of software, which are mentioned in question 1.2.1. (10 marks)
- 1.2.3 Write three (03) examples for each main categories of software, which are mentioned in question 1.2.1. (06 marks)
- 1.2.4 List down four (04) advantages in cloud computing. (05 marks)
- 1.2.5 What are the disadvantages of establishing a network infrastructure within an organization. List five (05) disadvantages. (05 marks)
- 1.2.6 Describe the following terms: (10 marks)
- 1.2.6.1 Informatics Pharmacist
- 1.2.6.2 PDF
- 1.2.6.3 HDMI
- 1.2.6.4 USB
- 02.
- 2.1
- 2.1.1 Describe about bandwidth of a channel in data communication system. (04 marks)
- 2.1.2 Describe two (02) problems in data communication. (10 marks)
- 2.1.3 Write four (04) different transmission media that can be used in data communication systems. (06 marks)
- 2.1.4 Write two (02) software development models. (05 marks)
- 2.1.5 How do you obtain an Internet connection for your office?
- 2.1.5.1 List down two (02) methods. (02 marks)
- 2.1.5.2 Who supply the Internet connection to clients? (02 marks)
- 2.1.5.3 What do the terms LAN and WAN means? (06 marks)
- 2.1.6 Describe **Hybrid Topology** and **Mesh Network Topology** separately. (05 marks)
- 2.1.7 List four (04) advantages of using Artificial Intelligence (AI) in the healthcare sector. (10 marks)

PART B

- 2.2 Briefly explain the main differences among data, information, and knowledge. (15 marks)
- 2.3 What is the primary purpose of the Domain Name System (DNS)? (10 marks)
- 2.4 What is meant by the term "protocol" in the field of computing? (10 marks)
- 2.5 Discuss the services/applications provided by the Internet, clearly identifying the associated protocols for each service/application. (15 marks)

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