



## FINAL EXAMINATION

|                    |   |                                                              |
|--------------------|---|--------------------------------------------------------------|
| Semester           | : | <b>SEPTEMBER 2025 SEMESTER</b>                               |
| Programme Name     | : | <b>FOUNDATION IN ARTS</b>                                    |
| Course Code & Name | : | <b>FA1113 BASIC INFORMATION AND COMMUNICATION TECHNOLOGY</b> |
| Duration           | : | <b>3 HOURS</b>                                               |

### INSTRUCTIONS TO CANDIDATES:

1. Please read the instructions given in the question paper **CAREFULLY**.
2. The question paper consists of **FOUR (4)** questions.
3. Answer **ALL** questions in the question paper.
4. Answers to the questions are to be written into the examination booklet.
5. Electronic dictionaries, lecture notes, files or any unauthorised materials except writing equipment are strictly prohibited.

This question paper must be submitted along with all used and/or unused rough papers and/ or graph papers (if any). Candidates are **NOT ALLOWED** to take any examination paper(s) used or unused out of the examination hall.

### WARNING:

The Examination Board of Peninsula College Georgetown regards cheating as a very serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from Peninsula College Georgetown.

*(This booklet contains 3 printed pages including this page)*

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ALLOWED TO DO SO**

Answer **ALL** questions on the separate sheet provided.

**[100 marks]**

1. a) What are the **FOUR (4)** key differences between System Software and Application software: (8 marks)
  - b) List the **SEVEN (7)** phases of the System Development Life Cycle (SDLC) in their correct order. (7 marks)
  - c) An international import/export company, is evaluating its use of different information systems. For each of the business needs, identify the most appropriate **FIVE (5)** type of Information System and justify their key different. (10 marks)
- Total: [25 marks]
2. a) Define the term "Multimedia" and list its **FIVE (5)** core components. (8 marks)
  - b) The multimedia workflow involves several stages. Match the following stages with their correct descriptions: (5 marks)

| Stage                      | Description                                                       |
|----------------------------|-------------------------------------------------------------------|
| 1. Input Sources           | A. Platforms like Figma and Miro that enable team-based creation. |
| 2. Processing Tools        | B. The final forms in which the multimedia project is delivered.  |
| 3. Collaboration Platforms | C. The raw materials such as text, audio, and video.              |
| 4. Output Formats          | D. The ways the audience engages with the content.                |
| 5. User Interaction        | E. Software and AI used to edit and create media elements.        |

- c) E-Commerce has transformed how businesses operate and consumers shop.
    - i) List **THREE (3)** key advantages of E-Commerce for a business. (6 marks)
    - ii) List **THREE (3)** key disadvantages of E-Commerce for a business. (6 marks)
- Total: [25 marks]
3. a) Modern manufacturing and supply chains are being transformed by the principles of Industry 4.0. This transformation is driven by the integration of several advanced technologies. Name **NINE (9)** of these foundational technologies, often referred to as the pillars of IR 4.0. (9 marks)

- b) Industry 4.0 represents a fundamental shift from automated to intelligent and interconnected manufacturing. Please provide **TWO (2)** era of the key driver or technological from IR 1.0 until IR 4.0. (8 marks)

- c) Please provide a real-world example with explanation for each era of Industry 4.0. (8 marks)

Total: [25 marks]

4. a) Define the meaning of Artificial Intelligence (AI). (3 marks)

- b) The field of Artificial Intelligence (AI) is often categorized based on its capabilities, ranging from today's reality to future possibilities.

- i) Identify and describe the **THREE (3)** categories of AI as shown on the capability spectrum. (6 marks)

- ii) For each category, provide one specific example & to illustrate its capabilities. (6 marks)

- c) Artificial Intelligence (AI) is no longer a futuristic concept but a practical tool transforming various industries. Select **FIVE (5)** different sectors from the list provided in Table 4.1 and provide a specific example of how AI is applied for. (10 marks)

| No | Sector                 |
|----|------------------------|
| .  |                        |
| 1  | <b>Agriculture</b>     |
| 2  | <b>Chatbots</b>        |
| 3  | <b>Social Media</b>    |
| 4  | <b>Online Shopping</b> |
| 5  | <b>Healthcare</b>      |
| 6  | <b>Video Games</b>     |
| 7  | <b>Banks</b>           |
| 8  | <b>Smart Cars</b>      |
| 9  | <b>Surveillance</b>    |
| 10 | <b>Travel</b>          |

Table 4.1: Applications of Artificial Intelligence

Total: [25 marks]

**- END OF QUESTIONS -**