L-Università ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION APPLIED CERTIFICATE LEVEL
2025 SUPPLEMENTARY SESSION**

SUBJECT:	**Information Technology**
PAPER NUMBER:	Synoptic – Unit 3
DATE:	3rd November 2025
TIME:	11:30 a.m. to 1:35 p.m.

THIS PAPER SHOULD BE RETURNED TO THE INVIGILATOR AFTER THE EXAMINATION.

For examiners' use only:

Question	1	2	3	4	5	6	Total
Score							
Maximum	6	8	8	12	8	8	50

Answer **ALL** questions in the space provided. You may answer either in English or in Maltese.

Scenario

- 'Play Interactive' is a game development company.
- It is developing a new game for schools.
- The game is intended to work across multiple platforms.

Question 1   **K-1 (6 marks)**

a. Name **FOUR** different genres of computer games, apart from educational.

Genre 1: _____ (0.5)

Genre 2: _____ (0.5)

Genre 3: _____ (0.5)

Genre 4: _____ (0.5)

b. Outline each computer game genre you named in Question 1a.

Outline of Genre 1: _____

_____ (0.5)

Outline of Genre 2: _____

_____ (0.5)

Outline of Genre 3: _____

_____ (0.5)

Outline of Genre 4: _____

_____ (0.5)

c. Describe the following **TWO** computer game platforms:

   i. Mobile gaming platforms:

_____

_____

_____

_____

_____ (1)

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ii. Personal computers:

_____

_____

_____

_____

_____ (1)

6

Question 2   **K-3 (8 marks)**

The game developers of 'Play Interactive' will be including images and sound in the game.

a. Name **TWO** image formats and **TWO** sound formats.

Image Format 1: _____ (0.5)

Image Format 2: _____ (0.5)

Sound Format 1: _____ (0.5)

Sound Format 2: _____ (0.5)

b. State **ONE** characteristic of an image format and **ONE** characteristic of a sound format.

Characteristic of Image Format: _____ (1)

Characteristic of Sound Format: _____ (1)

c. Describe the image and sound format characteristics you stated in Question 2b.

Description of Image Format Characteristic: _____

_____

_____

_____

_____ (2)

This question continues on next page.

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Description of Sound Format Characteristic: _____
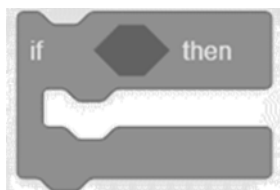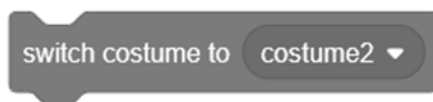
_____

_____

_____

_____ (2)

8

Question 3   K-5 (8 marks)

To develop the game, multiple code blocks were created.

a. Match the **FOUR** code blocks on the left with their respective category on the right, by drawing a line between them. (2)

Blocks	**Categories**
touching mouse-pointer ?	Events
switch costume to costume2	Sensing
when ⚑ clicked	Looks
if then	Control

b. Outline the purpose of any **TWO** block categories provided in Question 3a.

Category 1: _____

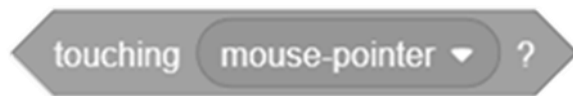Outline of Category 1: _____

_____

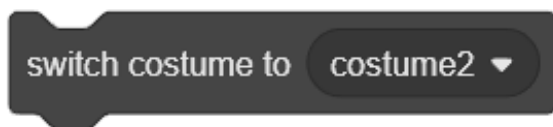_____ (1)

Category 2: _____

Outline of Category 2: _____

_____

_____ (1)

c. Describe the use of the following blocks, including an example as part of each description:

i.

_____

_____

_____

_____

_____ (2)

ii.

_____

_____

_____

_____

_____ (2)

8

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Question 4   **C-2 (12 marks)**

- Multiple game scripts were developed during the creation of the educational game.
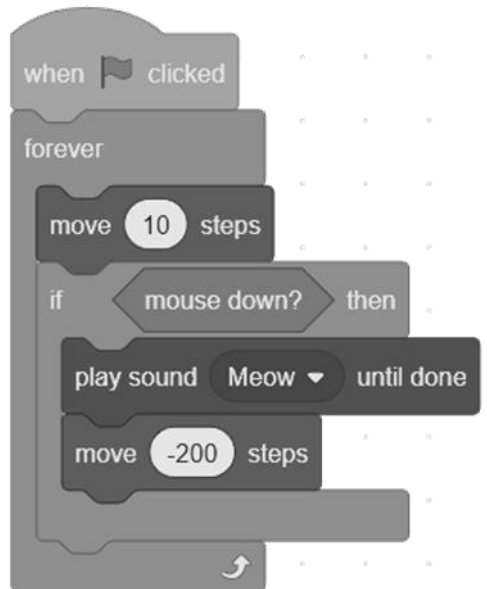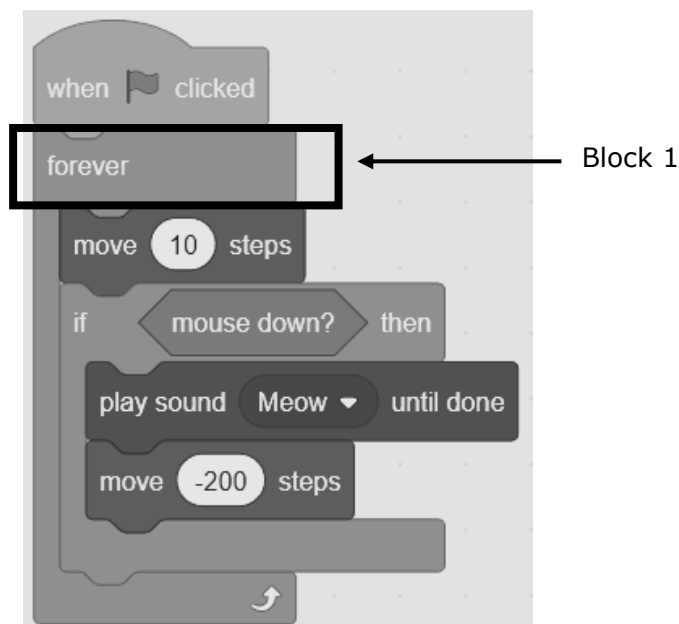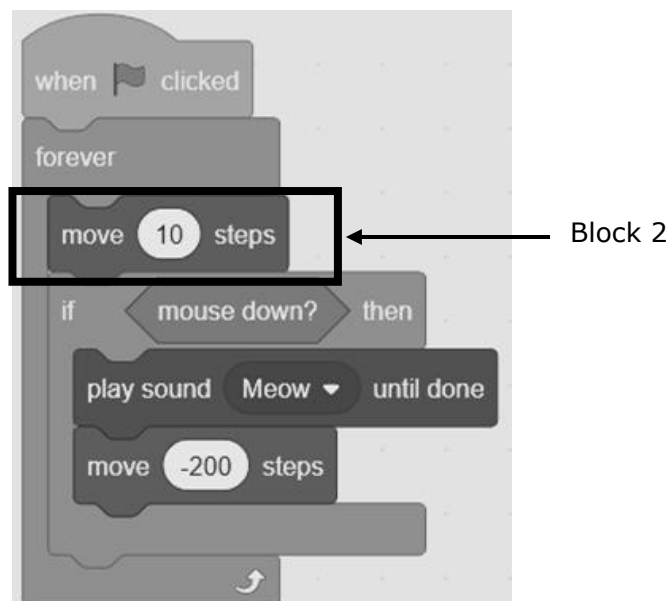- The following is one of the game scripts:

Figure 1: Game script

a. State the use of the following blocks, or group of blocks, as used in the game script shown in Figure 1 above.

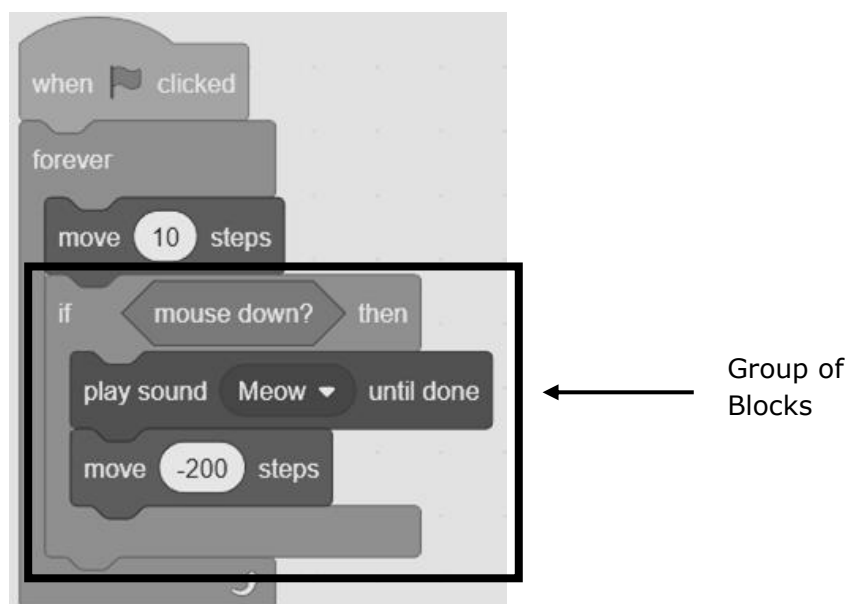Use of Block 1: _____

_____

_____ (1)

Use of Block 2: _____

_____

_____ (1)

Use of Group of Blocks: _____

_____

_____

_____

_____ (2)

This question continues on next page.

b. Explain the aim of the game script shown in Figure 1.

_____

_____

_____

_____

_____

_____

_____

_____ (4)

c. Draw the flowchart for the game script provided in Figure 1: (4)

12

Question 5   **K-6 (8 marks)**

- The new educational game will include both variables and constants.
- Two variables used in the game are:
  o *studentName* –holds the name of the student currently playing the game;
  o *score* –stores the player's current score as a whole number.

a. Select the most appropriate data type for the **TWO** given variables, from those provided below:

Boolean	String	Integer	Real

studentName: _____   (1)

score: _____   (1)

b. Define the following terms:

  i. Variable: _____

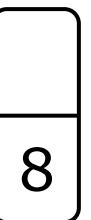_____   (1)

  ii. Constant: _____

_____   (1)

c. The game will make use of different variable scopes including local and cloud variables.

Differentiate between local variable and cloud variable scopes.

_____

_____

_____

_____

_____

_____

_____

_____   (4)

8

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Question 6   **K-8 (8 marks)**

The game developers know that they need to test the game to ensure its quality.

a. State **TWO** purposes of testing, apart from quality assurance.

   Purpose 1: _____ (1)

   Purpose 2: _____ (1)

b. Some errors could be found during the testing of the game.

   Outline the following **TWO** types of errors.

   i. Logical errors: _____

   _____

   _____ (1)

   ii. Run-time errors: _____

   _____

   _____ (1)

c. Game developers are aware that different kinds of documentation are to be written.

   Differentiate between requirements documentation and user documentation.

   _____

   _____

   _____

   _____

   _____

   _____

   _____ (4)

8

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