

## STEAM & INNOVATION ASSESSMENT TEST

# STEAM BEGINNERS (Sample Paper)

(60 minutes)

#### **INSTRUCTIONS**

- 1. This paper consists of **FOUR** questions. Attempt **ALL** questions.
- 2. Full mark for this paper is 50 marks.
- 3. Necessary devices are allowed. The devices will be provided.
- 4. For demonstration purposes, Matatalab Coding Platform will be used in this paper.
- 5. Network connection is NOT given and NOT permitted.
- 6. Screen recorder will be used to prevent any forms of cheating. Any discrepancy in recordings will be subject to further investigation.

#### PART I

#### Question 1 – Motion and Turn Blocks (6 marks)

## 1. (a) How to go from **FOREST** to **DESERT**? (1 mark)





Please find a way by using these blocks ONLY.

## 1. (b) How to go from **FOREST** to **ISLAND**? (2 mark)





Please find a way by using these blocks ONLY.

## 1. (c) How to go from **VOLCANO** to **MOUNTAIN**? (3 mark)





Please find a way by using these blocks ONLY.

#### **Question 2 – Fun Blocks (5 marks)**

2. (a) How to go from **GRASSLAND** to **RIVER** and play some **MUSIC**, and then go from **RIVER** to **VALLEY**? (2 marks)





Please find a way by using these blocks ONLY.

2. (b) How to go from VALLEY to ISLAND to play some MUSIC, and then go from ISLAND to SNOWFIELD to DANCE, and then go from SNOWFIELD to GOBI? (2 marks)





Please find a way by using these blocks ONLY.

#### **Question 3 – Number Blocks and Obstacles (6 marks)**

#### 3. (a) How to go from **CLIFF** to **SNOWFIELD**? (3 marks)





Please find a way by using these blocks ONLY.

\*\* You must use NUMBER Blocks

## 3. (b) How to go from **FOREST** to **DESERT**? (3 marks)





Please find a way by using these blocks ONLY.

\*\* You must use NUMBER Blocks

#### PART II

#### **Question 4 – Loops and Functions (33 marks)**

4. (a) How to go from **WATERFALL** to **MOUNTAIN**? (10 marks)





Please find a way by using these blocks ONLY.

\*\* You must use NUMBER Blocks

4. (b) How to go from **WATERFALL** to **GRASSLAND**, and then go from **GRASSLAND** to **RIVER**? (10 marks)





Please find a way by using these blocks ONLY.

\*\* You must use NUMBER Blocks

4. (c) How to go from **FOREST** to **VALLEY**, and then go from **VALLEY** to **GOBI**? (13 marks)





Please find a way by using these blocks ONLY.

\*\* You must use NUMBER Blocks

- END OF PAPER -