

	INDIAN SCHOOL AL WADI AL KABIR		
Class: X	Department: SCIENCE 2026 – 27 SUBJECT: DESIGN THINKING & INNOVATION		Date of submission: 03.09.2026
Worksheet No: PART B – 5 with answers	UNIT 5: PART B – FUNDAMENTALS OF ANIMATION		Note: A4 FILE FORMAT
NAME OF THE STUDENT		CLASS & SEC: X A TO I	ROLL NO.

MULTIPLE CHOICE QUESTIONS

1. What is animation?

- A. A type of sculpture
- B. A sequence of still images creating the illusion of motion
- C. A static drawing
- D. A type of photography

✓ **Answer: B. A sequence of still images creating the illusion of motion**

2. Which of the following is a **principle of animation?**

- A. Weight
- B. Stillness
- C. Squash and stretch
- D. Enlargement

✓ **Answer: C. Squash and stretch**

3. What is the process of creating movement frame by frame called?

- A. Storyboarding
- B. Keyframing
- C. Rendering

D. Sketching

✓ **Answer: B. Keyframing**

4. Which of the following is NOT a traditional animation technique?

A. Stop motion

B. 2D hand-drawn animation

C. 3D computer animation

D. Flipbook animation

✓ **Answer: C. 3D computer animation**

5. In animation, what does FPS stand for?

A. Frames per Second

B. Final Production Script

C. Film Playback System

D. Frame Projection Setup

✓ **Answer: A. Frames per Second**

6. Which software is commonly used for 2D animation?

A. AutoCAD

B. Adobe Animate

C. Excel

D. MS Paint

✓ **Answer: B. Adobe Animate**

7. What is a storyboard in animation?

A. A script for voice actors

B. A timeline for editing

C. A sequence of drawings representing scenes

D. A type of camera movement

✓ **Answer: C. A sequence of drawings representing scenes**

8. Which principle of animation deals with the speed and timing of motion?

A. Staging

B. Exaggeration

C. Timing and spacing

D. Solid drawing

✓ **Answer: C. Timing and spacing**

9. The illusion of life in animation is created by:

A. Drawing in black and white

B. Repeating frames

C. Adding motion and expressions

D. Using multiple colors

✓ **Answer: C. Adding motion and expressions**

10. What is the first step in creating an animation project?

A. Rendering

B. Storyboarding

C. Publishing

D. Voice recording

✓ **Answer: B. Storyboarding**

DESCRIPTIVE TYPE QUESTIONS

Q1. What is animation?

Answer:

Animation is the technique of creating the illusion of movement by displaying a series of individual images or frames in quick succession. Each frame shows a slightly different stage of the motion, which, when played continuously, appears as smooth motion to the viewer.

Q2. Define 'storyboarding' in the context of animation.

Answer:

Storyboarding is the process of creating a visual outline or sequence of sketches that represent the key scenes or actions in an animation. It helps plan the storyline, shot-by-shot flow, and timing before actual production begins.

Q3. Mention any two principles of animation and explain them briefly.

Answer:

1. **Squash and Stretch** – This principle gives a sense of weight and flexibility to drawn objects. For example, a bouncing ball squashes when it hits the ground and stretches when it moves up.
2. **Timing and Spacing** – Timing refers to the number of frames used for an action, which affects the speed and emotion of the motion. Spacing controls the distance between each frame to create smoothness or abruptness.

Q4. What is the difference between 2D and 3D animation?

Answer:

2D animation involves flat, two-dimensional characters and environments, created using hand-drawing or vector-based software. 3D animation uses digital models in a three-dimensional space, allowing for realistic depth, lighting, and movement.

Q5. Why is FPS (Frames Per Second) important in animation?

Answer:

FPS determines how many frames are shown per second in an animation. A higher FPS results in smoother motion, while a lower FPS can make the animation appear choppy. Common frame rates include 24 FPS for films and 30 FPS for videos.

Prepared by: Ms. Aiswarya Deepthi.P	Checked by: AVP – Science & French
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