



Indian School Al Wadi Al Kabir

Mid-term Examination (2025-2026)

Subject: Skill Education

Class: IX

DESIGN THINKING & INNOVATION (422)

Max. marks: 50

Date: 25/09/2025

Set- I

Time: 2 hrs.

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **22 questions** in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (5 + 17 =) 22 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 05 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 17 questions.
 - ii. A candidate has to do 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

- Q. 1 Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)**
- i. How do you receive information on the phone?
 - (a) Listening
 - (b) Speaking
 - (c) Reading
 - (d) Writing

- ii. When we communicate verbally, we should use _____. 1
- difficult words
 - simple words
 - confusing words
 - abbreviations
- iii. Assertion(A): A student asks his friend, "How do you feel"? 1
Reason(R): The statement given above is an example of an open-ended question.
- Both A and R are correct and R is the correct explanation of A
 - Both A and R are correct but R is not the correct explanation of A
 - A is correct but R is not correct
 - A is not correct but R is correct
- iv. What does an upright (straight) body posture convey/ show? 1
- Shyness
 - Fear
 - Confidence
 - Intelligence
- v. ICT refers to _____. 1
- Information and Communication Technology
 - Internet and Computer Technology
 - Information Coding Technique
 - International Communication Tools
- vi. Rahul gets feedback on his project work from his class teacher. Which of these options demonstrates a positive attitude in this situation? 1
- Rahul ignores the feedback.
 - Rahul takes the feedback but does not use it.
 - Rahul tells others that the teacher is wrong.
 - Rahul learns from the feedback and makes his project work better.

Q. 2 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)

- i. Designer is primarily characterized by their ability to: 1
- Only identify problems without offering solutions.
 - Be an expert solely in artistic creation.
 - Be a highly creative person who enjoys solving problems and is sensitive to the needs of people.
 - Conduct research without developing any creative solutions.
- ii. Design thinking involves _____ phases in the process of solving a problem. 1
- Eight
 - Six
 - Four
 - Five
- iii. In which phase of the design thinking process helps you to come out with several alternate, creative innovative solutions to the problems. 1
- Observe
 - Ideate
 - Reflect
 - Understand

- iv. According to the definition, for Design to make a positive difference to life in our universe, it must consider which of the following aspects? 1
- (a) Only the cost-effectiveness of solutions.
 - (b) Primarily the visual appeal of the product.
 - (c) Aspects of sustainability.
 - (d) Limiting solutions to only well-established technologies.
- v. _____ involves the implementation of something new and replacing or reframing the existing mindset. 1
- (a) Designing
 - (b) Creation
 - (c) Maintenance
 - (d) Innovation
- vi. Which is the first phase of design thinking process? 1
- (a) Observe
 - (b) Build/do
 - (c) Ideate
 - (d) Reflect
- Q. 3 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**
- i. A designer is a highly _____ person who enjoys solving problems. 1
- (a) Active
 - (b) Energetic
 - (c) Creative
 - (d) Responsible
- ii. Which part is known as the eye of a camera? 1
- (a) Aperture
 - (b) Shutter
 - (c) Sensor
 - (d) Lens
- iii. From the given list below, which camera does not have interchangeable lens? 1
- (a) DSLR (APSC sized sensor)
 - (b) Full frame DSLR
 - (c) Large format
 - (d) Point and shoot
- iv. The physical or electronic mechanism that controls the duration of time the image sensor is exposed to light is known as _____. 1
- (a) Lens
 - (b) Aperture
 - (c) Shutter
 - (d) Sensor
- v. To capture 'blur-free action' photographs you need to make sure your camera uses _____. 1
- (a) High shutter speed
 - (b) Low shutter speed
 - (c) Zero shutter speed
 - (d) Infinity shutter speed

- vi. The part of digital camera also known as the "brain" of digital camera which takes the raw data from the image sensor and processes it. 1
- Sensor
 - Aperture
 - Image processor
 - Shutter
- Q. 4 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**
- i. _____ is the number of pixels in your sensor. 1
- Mega count
 - Megapixel
 - Macro mode
 - Program mode
- ii. The _____ is the physical zoom that the optics in the camera can perform 1
- Optical Zoom
 - Light Zoom
 - Color Zoom
 - Digital Zoom
- iii. What is the full form of LCD? 1
- Light Crystal Display
 - Length Crystal Display
 - Lens Crystal Display
 - Liquid Crystal Display
- iv. Which among the following is not an example of the Elements of Design? 1
- Shape
 - Symmetry
 - Point
 - Color
- v. Together, a number of points can have a leading effect where the eye naturally attempts to "connect the dots" to create a line or form. This is known as the _____. 1
- Principle of symmetry
 - Unitary principle
 - Gestalt grouping principle
 - Principle of design
- vi. The following question contains an Assertion followed by a Reason. Read them carefully and select the option that best describes the two statements: 1
- Assertion(A): The focal length of a normal lens is 50 mm.
- Reason(R): It is not suitable for street photography.
- Both assertion and reason are correct and the reason is the correct explanation of the assertion.
 - Both assertion and reason are correct but the reason is not the correct explanation of the assertion.
 - Assertion is correct but the reason is not correct.
 - Assertion is incorrect but the reason is correct.

Q. 5 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)

- i. In design _____ refers to lightness or darkness of color. 1
(a) Value
(b) Pitch
(c) Form
(d) Texture
- ii. _____ is known as distributing elements evenly to create a sense of stability. 1
(a) Rhythm
(b) Emphasis
(c) Balance
(d) Contrast
- iii. _____ is a design principle where we try and differentiate one or more elements/visuals from others by differentiating them by help of colors, fonts, typography, repetition, alignment, or anything else. 1
(a) Contrast
(b) Proportion
(c) Unity
(d) Emphasis
- iv. Which are known as the basic building block of any composition? 1
(a) Elements of design
(b) Principles of design
(c) Properties of design
(d) Fundamentals of design
- v. _____ is one of the elements of design that is used to represent how an object appears or feels. 1
(a) Texture
(b) Form
(c) Shape
(d) Space
- vi. Highlighting the important parts of a design is known as _____. 1
(a) Unity
(b) Emphasis
(c) Proportion
(d) Contrast

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

- Q. 6 Speaking in front of a large group makes most people nervous. You can use the '3Ps' method to get over your fears, and become a confident and effective speaker. Name those methods abbreviated as '3 Ps'. 2
- Q. 7 List any 4 self - management skills. 2
- Q. 8 Write one sentence of each type—statement, question, exclamatory and order. 2
- Q. 9 Describe the functions of any 4 types of keys. 2
- Q. 10 Write two to three lines you would use to introduce yourself. 2

Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)

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|-------|--|---|
| Q. 11 | What is a design? | 2 |
| Q. 12 | Explain the term innovation. | 2 |
| Q. 13 | Name any four principles of design. | 2 |
| Q. 14 | Differentiate between optical zoom and digital zoom. | 2 |
| Q. 15 | What are the applications of photography. | 2 |
| Q. 16 | List any four elements of design. | 2 |

Answer any 3 out of the given 6 questions in 50– 80 words each (4 x 3 = 12 marks)

Q.17 Case study

Ananya is a class 9 student who loves photography. She recently borrowed her uncle's digital camera to take pictures of a school event. However, when she reviewed her photos, she found some were too bright, some were blurry, and some lacked detail in low light. She shared this experience with her friend, who explained that there are four main parts of the camera.
Explain the four main parts of a camera. 4

Q18 Case study

Ravi and Meera are both interested in photography and want to buy a new smartphone with a good camera. They find two models online:
 • Phone A: 48 Megapixels, small sensor size
 • Phone B: 12 Megapixels, large sensor size
 Ravi believes Phone A is better because it has more megapixels. Meera, however, read an article that explained how sensor size also plays a big role in image quality, especially in low light conditions. Now they are confused. Help them to choose the better camera by highlighting the differences between megapixels and sensor size. 4

Q.19 Case study

A local community in Oman is facing a growing issue with food waste in households. Despite awareness campaigns, residents continue to discard large amounts of edible food. The municipality wants to develop a **digital solution** that helps families reduce food waste through better planning, sharing, and education.
Explain the five phases of 'Design Thinking Process' that will help to solve the problem. 4

Q.20 Case study

A startup in Muscat is launching a new eco-friendly skincare brand targeted at young adults. They want to create a visually striking product packaging and promotional campaign that reflects their values: sustainability, purity, and modern lifestyle. The design team is tasked with developing the brand's visual identity using the Elements of Design. Describe any four 'Elements of Design'. 4

Q.21 Case study

Imagine your school is preparing for its annual cultural festival. The art department has been asked to design a poster and stage backdrop that captures the theme: "Harmony in Diversity." The design should appeal to students, parents, and guests, and reflect the vibrant mix of cultures represented in the school. As a student designer, apply the elements and principles of design to create a concept for the poster and stage backdrop. Differentiate between 'Elements of Design' and 'Principles of Design'. 4

Q.22 Case study

Arjun is a Class 9 student who recently joined his school's photography club. The club has been tasked with creating a photo exhibition titled "Life at School" for the upcoming annual day celebration. Arjun has been assigned to capture different types of photographs using the school's DSLR camera. He has a basic understanding of aperture, ISO, and composition rules, but isn't sure how to apply them in different shooting situations.
Explain the concepts of Aperture, ISO settings and Composition. 4

