

CEED 2026 Question Paper with Solutions

Time Allowed :3 Hours	Maximum Marks :200	Total Questions :46
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. The test is of 3 hour duration.
2. 1 hour, computer-based, objective questions (NAT, MSQ, MCQ)
3. 2 hours, computer-based screen display, pen-and-paper subjective answers (drawing, design questions)
4. There is negative marking in Part A for MSQ and MCQ questions, while NAT questions have no negative marking.
5. Questions appear on the computer, but answers are to be drawn or written in the answer booklet provided by the invigilator.
6. Assesses drawing skills (products, people, scenes), design aptitude, creativity, and communication skills.
7. No negative marking for questions in Part B.

1. How many cases do you need if you have to pack 148 pairs of shoes into cases that each holds 37 shoes?

Correct Answer: 8 cases

Solution:

Step 1: Understanding the Question:

The problem requires us to calculate the total number of cases needed to pack a specific quantity of shoes, where each case has a fixed capacity. It's important to distinguish between "pairs of shoes" and "individual shoes."

Step 2: Key Formula or Approach:

1. Calculate the total number of individual shoes.
2. Divide the total number of shoes by the number of shoes each case can hold.

$$\text{Number of Cases} = \frac{\text{Total Number of Individual Shoes}}{\text{Shoes per Case}}$$

Step 3: Detailed Explanation:

First, we find the total number of individual shoes.

Number of pairs = 148.

Since 1 pair = 2 shoes, the total number of shoes is:

$$\text{Total Shoes} = 148 \times 2 = 296 \text{ shoes}$$

Next, we know that each case holds 37 shoes. To find the number of cases required, we divide the total number of shoes by the capacity of one case.

$$\text{Number of Cases} = \frac{296}{37}$$

$$\text{Number of Cases} = 8$$

Step 4: Final Answer:

You will need 8 cases to pack all the shoes.

💡 Quick Tip

Pay close attention to units in word problems. The question mentions "pairs of shoes," but the case capacity is in "shoes." Always convert to a consistent unit before performing calculations.

2. Ravi has a briefcase with dimensions of two by $1\frac{1}{2}$ by $1\frac{1}{2}$ feet. He wishes to place several notebooks, each eight by nine by one inch, into the briefcase. What is the largest number of notebooks the briefcase will hold?

Correct Answer: 108 notebooks

Solution:

Step 1: Understanding the Question:

This is a 3D packing problem. We need to find the maximum number of small boxes (notebooks) that can fit inside a larger box (briefcase). We must ensure the units are consistent before calculating.

Step 2: Key Formula or Approach:

1. Convert all dimensions to the same unit (inches).
2. Calculate the volume of the briefcase and the notebook.
3. To find the maximum number, it's best to check how many notebooks fit along each dimension (length, width, height) rather than just dividing volumes, as this accounts for packing orientation.

Step 3: Detailed Explanation:

Part 1: Convert dimensions to inches

Given that 1 foot = 12 inches.

Briefcase dimensions: 2 feet $\times$ 1.5 feet $\times$ 1.5 feet.

Length = 2 $\times$ 12 = 24 inches.

Width = $1.5 \times 12 = 18$ inches.
Height = $1.5 \times 12 = 18$ inches.
So, the briefcase is $24'' \times 18'' \times 18''$.
Notebook dimensions: 9 inches $\times$ 8 inches $\times$ 1 inch.

Part 2: Check packing orientation

We need to find the most efficient way to pack the 9x8x1 notebooks into the 24x18x18 briefcase.

Orientation 1:

- Along the 24-inch dimension, we can fit $\lfloor \frac{24}{9} \rfloor = 2$ notebooks or $\lfloor \frac{24}{8} \rfloor = 3$ notebooks. Let's try fitting the 8-inch side. - Number along Length (24''): $\frac{24}{8} = 3$ notebooks.
- Number along Width (18''): $\frac{18}{9} = 2$ notebooks.
- Number along Height (18''): $\frac{18}{1} = 18$ notebooks.
Total notebooks in this orientation = $3 \times 2 \times 18 = 108$ notebooks.

Orientation 2:

- Let's try fitting the 9-inch side along the 24-inch dimension. - Number along Length (24''): $\lfloor \frac{24}{9} \rfloor = 2$ notebooks.
- Number along Width (18''): $\lfloor \frac{18}{8} \rfloor = 2$ notebooks.
- Number along Height (18''): $\frac{18}{1} = 18$ notebooks.
Total notebooks in this orientation = $2 \times 2 \times 18 = 72$ notebooks.

Comparing the orientations, the first one yields the largest number.

Step 4: Final Answer:

The largest number of notebooks the briefcase can hold is 108.

Quick Tip

For packing problems, simply dividing the larger volume by the smaller volume can be misleading. Always check the physical fit along each dimension to find the true maximum number.

3. In which country did Bauhaus – the first formal design school – was established?

- (A) Germany
- (B) Hungary
- (C) Italy
- (D) UK

Correct Answer: (A) Germany

Solution:

Step 1: Understanding the Question:

The question asks for the country where the Bauhaus design school was founded.

Step 2: Detailed Explanation:

The Staatliches Bauhaus, commonly known as the Bauhaus, was a German art school operational from 1919 to 1933. It was founded by architect Walter Gropius in Weimar, Germany. The school later moved to Dessau and then to Berlin before being closed under pressure from the Nazi regime. Bauhaus had a profound influence on subsequent developments in art, architecture, graphic design, interior design, industrial design, and typography.

Step 3: Final Answer:

The Bauhaus school was established in Germany.

💡 Quick Tip

Key historical facts about major art and design movements, such as the location and founder of the Bauhaus, are common topics in design and architecture entrance exams.

4. When "Rule of thirds" is applied to a picture/image, then in how many parts the picture/image will be divided?

- (A) no division
- (B) 3 parts
- (C) 6 parts
- (D) 9 parts

Correct Answer: (D) 9 parts

Solution:

Step 1: Understanding the Question:

The question asks about the number of sections an image is divided into when applying the "Rule of Thirds."

Step 2: Detailed Explanation:

The Rule of Thirds is a fundamental principle of composition in visual arts like painting, photography, and design. The guideline proposes that an image should be imagined as divided into nine equal parts by two equally spaced horizontal lines and two equally spaced vertical lines. Important compositional elements should be placed along these lines or their intersections. This creates more tension, energy, and interest in the composition than simply centering the subject. The grid of two horizontal and two vertical lines creates a 3x3 matrix, resulting in 9 equal parts.

Step 3: Final Answer:

The Rule of Thirds divides an image into 9 parts.

💡 Quick Tip

Remember that the Rule of Thirds grid is formed by two horizontal and two vertical lines. This 3x3 grid not only creates 9 sections but also four key intersection points where subjects of interest are often placed for a strong composition.

5. Which of the following is/ARE considered "Impossible triangle"?

- (A) Kanizsa triangle
- (B) Penrose triangle
- (C) Barmoda triangle
- (D) Color triangle

Correct Answer: (B) Penrose triangle

Solution:

Step 1: Understanding the Question:

The question asks to identify which of the given options is known as an "Impossible triangle." This refers to a type of optical illusion known as an impossible object.

Step 2: Detailed Explanation:

- **(A) Kanizsa triangle:** This is an optical illusion that creates illusory contours, suggesting a triangle that is not actually there. It's an illusion of perception, but not an impossible object.
- **(B) Penrose triangle:** This is the quintessential "impossible triangle" or "impossible tribar." It is a two-dimensional drawing of an object that cannot exist in three-dimensional space. It was first created by the Swedish artist Oscar Reutersvärd and later independently devised and popularized by Lionel and Roger Penrose.
- **(C) Barmoda triangle:** This appears to be a misspelling or a distractor term. It does not correspond to any known geometric figure or optical illusion.
- **(D) Color triangle:** This is a term from color theory, used to represent the relationships between colors, and has nothing to do with impossible objects.

Step 3: Final Answer:

The Penrose triangle is the correct term for the "Impossible triangle."

💡 Quick Tip

Impossible objects, like the Penrose Triangle and Penrose Stairs, are common examples in questions about optical illusions and visual perception. They appear to be 3D but cannot be constructed in reality.

6. Select the correct basic types of "perspective"

- (A) Angular perspective
- (B) Linear Perspective
- (C) Aerial Perspective
- (D) all

Correct Answer: (D) all

Solution:

Step 1: Understanding the Question:

The question asks to identify the correct terms related to the basic types of perspective used in art and drawing.

Step 2: Detailed Explanation:

Let's analyze the options in the context of creating the illusion of depth on a two-dimensional surface.

- **(A) Angular perspective:** This is a specific type of linear perspective that uses two vanishing points (two-point perspective). It is used to draw objects at an angle to the viewer's line of sight. It is a correct and basic type.
- **(B) Linear Perspective:** This is a major category of perspective where the relative size, shape, and position of objects are determined by drawn or imagined lines converging at a point on the horizon. It includes one-point, two-point (angular), and three-point perspective. It is a correct and basic type.
- **(C) Aerial Perspective:** Also known as atmospheric perspective, this technique creates depth by modulating color and contrast. Distant objects appear less detailed, lower in contrast, and bluer or paler. It is a correct and basic type.

Since Angular, Linear, and Aerial are all valid and fundamental concepts within the study of perspective, the most appropriate answer is "all."

Step 3: Final Answer:

All the listed options are correct basic types or sub-types of perspective.

💡 Quick Tip

Perspective in art is broadly divided into two main categories: Linear Perspective (creating depth with lines and vanishing points) and Aerial/Atmospheric Perspective (creating depth with color and value). Angular perspective is a key type of linear perspective.
