S5 Visual Arts Practice Paper: Visual Elements and Design Principles, Colour Theory and Value Contrast, Painting Materials and Canvas Ratio, Perspective and Human Proportion, Photographic Exposure and Digital Resolution, Exhibition Budget and Artwork Pricing

S5 | Visual Arts | Time: 60 minutes | Total: 100 marks | 24 questions

---

Part A - Visual Elements and Design Principles (18 marks)

Show working and units in calculations; answer appreciation questions in full sentences.

1. A canvas is 90 cm long and 60 cm wide. Calculate the ratio of length to width and express it as a ratio in simplest whole numbers. [5]

2. For a composition using the golden ratio 1.618, find the ideal height of a canvas whose width is 40 cm (1 decimal place). [5]

3. Using the rule of thirds on a picture 96 cm wide, calculate the positions of the two vertical third lines measured from the left edge. [4]

4. Explain how the design principles of contrast and balance create visual tension, giving one example of each. [4]

Part B - Colour Theory and Value Contrast (16 marks)

Show working in calculations; use colour-theory terms in the discussion questions.

5. A blue has a value of 95 and a purple has a value of 10. Calculate the value difference and state whether it is a high-contrast pair. [4]

6. On a twelve-hue colour wheel, how many degrees apart are adjacent hues? Complementary hues are 180 degrees apart, so how many steps is that? [4]

7. Mix 3 parts blue with 2 parts yellow to make green. Calculate the percentage of each primary colour in the mixture. [4]

8. Explain how cool and warm colours differ in mood, naming one colour and its usual association for each. [4]

Part C - Painting Materials and Canvas Ratio (17 marks)

Show working and units in calculations; keep a sensible number of decimal places.

9. A canvas measures 1.2 m by 0.9 m and linen costs 180 dollars per square metre. Calculate the area and the cost of the linen (1 decimal place). [5]

10. Four paint tubes of 37 ml each cost 168 dollars in total. Calculate the total volume and the price per millilitre (2 decimal places). [4]

11. A3 paper measures 297 mm by 420 mm. Calculate the length-to-width ratio (2 decimal places) and name the standard ratio it approximates. [4]

12. State two environmental factors to control when storing acrylic paintings and explain why each matters. [4]

Part D - Perspective and Human Proportion (17 marks)

Show working in calculations; describe drawings in words where needed.

13. In two-point perspective a box has a near edge of 8 cm and a far edge of 5 cm. Calculate the percentage reduction of the far edge relative to the near edge. [5]

14. Draw a figure 165 cm tall using a 7.5-head canon. Calculate the head height and the height of the shoulder line (taken as 1.5 head lengths). [4]

15. A sketch measuring 15 cm by 20 cm is enlarged so that its width becomes 45 cm. Calculate the scale factor and the enlarged height. [4]

16. Explain the principle of aerial (atmospheric) perspective and describe two ways it is shown in landscape painting. [4]

Part E - Photographic Exposure and Digital Resolution (16 marks)

Show working in calculations; justify your answers in comparison questions.

17. Print an 8 inch by 10 inch photograph at 300 dpi. Calculate the minimum pixel dimensions required (width x height). [4]

18. Stopping the aperture from f/5.6 to f/11 reduces the light by how many stops? Show the f-number sequence. [4]

19. Raising ISO from 100 to 400 increases exposure by how many stops? State the cost of a higher ISO. [4]

20. Explain the relationship between aperture size and depth of field, with examples for portraits and landscapes. [4]

Part F - Exhibition Budget and Artwork Pricing (16 marks)

Show working and units in calculations; give practical measures in the discussion question.

21. Exhibition costs are 6,000 dollars for venue hire, 1,200 dollars for printing and 800 dollars for insurance. Calculate the total budget and the cost per artwork for 20 works. [4]

22. A gallery charges 40%% commission on the sale price. For a work sold at 5,000 dollars, calculate the artist's net income and the commission. [4]

23. From the budget above, what percentage of the total is venue hire? If the rent rises by 20%%, by how much does the total budget increase? [4]

24. Describe three practical ways a small exhibition can control costs, explaining how each affects the final budget. [4]
