S5 Visual Arts Practice Paper: Design Elements and Principles, Colour Theory, Art Criticism, Hong Kong and Chinese Art, Western Movements, Portfolio Planning

S5 | Visual Arts | Time: 75 minutes | Total: 100 marks | 24 questions

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Part A Design Elements and Principles (16 marks)

4 marks each. Show your working.

1. A canvas measures 60 cm by 90 cm with a 5 cm white border on all four sides. Find the area of the border and the percentage of the whole canvas it covers (1 decimal place). [4]

Answer: Whole canvas 60 x 90 = 5400 cm2; image area 50 x 80 = 4000 cm2; border = 1400 cm2; 1400 / 5400 x 100 = 25.9%.

2. Using the rule of thirds on a canvas 90 cm wide and 60 cm high, state the positions of the two vertical and two horizontal third lines, and the coordinates of the upper-left third point. [4]

Answer: 90 / 3 = 30, so vertical lines at x = 30 and 60 cm; 60 / 3 = 20, so horizontal lines at y = 20 and 40 cm; upper-left third point = (30, 20) cm.

3. A drawing uses a scale of 1:5 for a real object 2.4 m tall. Find the drawn height in cm, then the height if a 1:8 scale is used instead. [4]

Answer: 1:5 gives 240 / 5 = 48.0 cm; 1:8 gives 240 / 8 = 30.0 cm.

4. A repeat motif is 15 cm long and the strip is 120 cm. Find the number of complete repeats with no margins, then with a 5 cm margin at each end (give the leftover length). [4]

Answer: No margin: 120 / 15 = 8 repeats; with 5 cm margins the usable run is 110 cm, giving 7 complete repeats and 5 cm left over.

Part B Colour Theory (16 marks)

4 marks each. Show your working.

5. Blue (3 parts) is mixed with yellow (2 parts) to make green, total 250 ml. Find the percentage of blue and the volume of each colour. [4]

Answer: Total parts 3 + 2 = 5; blue = 3 / 5 x 100 = 60.0%; volume: 250 x 3 / 5 = 150 ml blue and 100 ml yellow.

6. 20 ml of white is added to 60 ml of red to make a tint. Find the total volume and the percentage of white. For white to be 40% with the same 60 ml of red, how much white is needed? [4]

Answer: Total 20 + 60 = 80 ml; white = 25.0%. For 40% white let white = x: x / (x + 60) = 0.4, so x = 40 ml (total 100 ml).

7. A red has RGB value (204, 51, 51). Using the mean channel value, find its lightness and express it as a percentage of 255 (1 decimal place). [4]

Answer: Mean = (204 + 51 + 51) / 3 = 102.0; 102.0 / 255 x 100 = 40.0%. A medium-value warm colour, suitable for a small area of emphasis.

8. On a 12-step colour wheel, find the angle of each step. If red is at 0 degrees, give the angle of its complementary colour and the number of steps between them. [4]

Answer: Each step = 360 / 12 = 30 degrees; the complement is 180 degrees away, i.e. 6 steps, at 180 degrees (blue-green).

Part C Art Criticism and Formal Analysis (16 marks)

4 marks each. Show working or use precise critical terms.

9. A criticism exercise totals 40 marks: description 8, analysis 12, interpretation 12, evaluation 8. Find the percentage weight of each step. [4]

Answer: Description 8 / 40 x 100 = 20.0%; analysis 12 / 40 x 100 = 30.0%; interpretation 12 / 40 x 100 = 30.0%; evaluation 8 / 40 x 100 = 20.0%. Analysis and interpretation together take 60.0%.

10. A candidate must write 400 words of criticism in 30 minutes. Find the average words per minute (1 decimal place); at the same speed, how long for 600 words (1 decimal place)? [4]

Answer: 400 / 30 = 13.3 words per minute; 600 / 13.3 = 45.1 minutes.

11. A paper is worth 100 marks in 75 minutes; the criticism section carries 16 marks. Allocating time in proportion to marks, how many minutes should the section take (1 decimal place)? [4]

Answer: 16 / 100 x 75 = 12.0 minutes; the remaining 84 marks get about 63.0 minutes, roughly 0.75 minutes per mark.

12. An artwork statement of 420 words contains 84 descriptive adjectives. Find the percentage (1 decimal place); to reach 25% at the same word count, how many more adjectives are needed? [4]

Answer: 84 / 420 x 100 = 20.0%; 25% of 420 = 105 adjectives, so 21 more are needed.

Part D Exhibitions and Data in Hong Kong and Chinese Art (16 marks)

4 marks each. Show your working.

13. A Hong Kong art exhibition opened for 45 days and recorded 12,000 visits. Find the average daily attendance (1 decimal place). [4]

Answer: 12,000 / 45 = 266.7 visits per day (about 267 people).

14. Adult tickets cost $30 and student tickets are half price at $15; 40% of visitors were students. Find the number of adult and student visits and the total ticket revenue. [4]

Answer: Students 12,000 x 0.4 = 4,800; adults 12,000 - 4,800 = 7,200; revenue 7,200 x 30 + 4,800 x 15 = $288,000.

15. An exhibition budget is $600,000: venue 45%, promotion 20%, production 25%, staffing 10%. Find each amount and check the total. [4]

Answer: Venue $270,000, promotion $120,000, production $150,000, staffing $60,000; total $600,000, matching the budget.

16. A gallery is 320 m2 and each work needs 8 m2 including circulation. Find the maximum number of works; if 32 are shown, find the space utilisation rate (1 decimal place). [4]

Answer: 320 / 8 = 40 works maximum; 32 / 40 x 100 = 80.0%.

Part E Western Art Movements and Chronology (16 marks)

4 marks each. Show your working.

17. The first Impressionist exhibition was in 1874 and Cubism is usually dated from 1907. Find the interval in years; if a movement lasts 11 years on average, how many complete movements fit in that interval? [4]

Answer: 1907 - 1874 = 33 years; 33 / 11 = 3 complete movements with 0 years left over.

18. From 1900 to 2000 is 100 years. If a movement lasted 12 years, find its share of that period (1 decimal place). [4]

Answer: 12 / 100 x 100 = 12.0%; roughly one in 8.3 movements would last that long.

19. The Renaissance runs about 1400-1600 and the Baroque about 1600-1750. Find the length of each and express them as a ratio in simplest whole numbers. [4]

Answer: Renaissance 200 years, Baroque 150 years; 200:150 = 4:3.

20. An abstract movement was founded in 1915. How many years old was it in 2015? If a retrospective is held every 25 years starting 25 years after founding, which edition falls in 2015? [4]

Answer: 2015 - 1915 = 100 years; 100 / 25 = 4, so 2015 hosts the 4th retrospective (1940, 1965, 1990, 2015).

Part F Creative Process and Portfolio Planning (20 marks)

5 marks each. Show your working and explain how it applies to your work.

21. A 12-week plan allocates 15% concept, 20% research, 25% thumbnails, 30% production and 10% review. Find the weeks for each stage (1 decimal place) and check the total. [5]

Answer: Concept 1.8, research 2.4, thumbnails 3.0, production 3.6, review 1.2 weeks; total 12 weeks. Production is the longest stage, so keep a buffer.

22. Material costs: canvas $80 x 6, paint $45 x 4, brushes $120. Find the subtotal; add a 10% contingency for the total. [5]

Answer: Canvas 480, paint 180, brushes 120: subtotal $780; 10% contingency $78.0; total $858.0.

23. A portfolio holds 20 works and 8 are submitted. Find the submission percentage (1 decimal place); at 1.5 minutes per work, find the total presentation time. [5]

Answer: 8 / 20 x 100 = 40.0%; 8 x 1.5 = 12.0 minutes.

24. A photograph of an artwork has a 3,000 px long edge and is printed at 300 dpi. Find the printable long edge in inches and cm (1 decimal place each). [5]

Answer: 3,000 / 300 = 10.0 inches; 10.0 x 2.54 = 25.4 cm.