S2 Visual Arts Practice Paper: Visual Elements and Principles of Design, Colour Theory, Painting Media and Techniques, Printmaking, Chinese and Western Art Appreciation, Design, Craft and Community Art (100 marks)

S2 | Visual Arts | Time: 60 minutes | Total: 100 marks | 24 questions

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Part 1: Visual Elements and Principles of Design

Answer all questions and show your working.

1. A painting is 34 cm long and designed on the golden ratio 1:1.618. What should its width be in cm (1 d.p.)? [4]

Answer: Width = 34 / 1.618 = 21.0 cm.

2. A square has side 12 cm. (a) How many lines of reflectional symmetry does it have? (b) What is the area of each half after folding along one line of symmetry? [4]

Answer: (a) 4 lines (two diagonals and two mid-lines). (b) 144 / 2 = 72 cm2.

3. A composition is 45 cm wide and follows the rule of thirds. (a) How far is each vertical third line from the left edge? (b) What is the spacing between the two lines? [4]

Answer: (a) 45 / 3 = 15 cm and 30 cm. (b) 15 cm apart.

4. A figure is 168 cm tall. (a) At a 7-head proportion, how long is the head? (b) At an 8-head proportion? (c) What is the difference between the two? [5]

Answer: (a) 168 / 7 = 24 cm. (b) 168 / 8 = 21 cm. (c) 3 cm.

Part 2: Colour Theory and Colour Schemes

Answer all questions and show your working.

5. On a 12-hue colour wheel, (a) what is the angle between two adjacent hues? (b) How many steps away is the complement of red? [4]

Answer: (a) 360 / 12 = 30 degrees. (b) 180 / 30 = 6 steps.

6. A poster of 2.4 m2 uses a 60-30-10 colour scheme. (a) What area is the dominant colour? (b) What area is the secondary colour? [4]

Answer: (a) 2.4 x 0.6 = 1.44 m2. (b) 2.4 x 0.3 = 0.72 m2.

7. 50 mL of white paint is mixed into 100 mL of red paint. (a) What percentage of the mixture is white? (b) If another 50 mL of water is added, what percentage of the total liquid is white? [4]

Answer: (a) 50 / 150 x 100 = 33.3%. (b) 50 / 200 x 100 = 25%.

8. A work of 1.5 m2 uses warm colours for 70% and cool colours for 30%. (a) What is the warm area? (b) If warm drops to 50%, by how much does the cool area increase? [5]

Answer: (a) 1.5 x 0.7 = 1.05 m2. (b) Cool rises from 0.45 to 0.75 m2, an increase of 0.30 m2.

Part 3: Painting Media and Techniques

Answer all questions and show your working.

9. A canvas is 60 cm by 80 cm with a 5 cm blank border on all four sides. What is the paintable area in cm2? [4]

Answer: (60 - 10) x (80 - 10) = 50 x 70 = 3500 cm2.

10. Watercolour is mixed with water and pigment in the ratio 3:1. For 120 mL of mixture, how much water and how much pigment are needed? [4]

Answer: Water = 120 x 3/4 = 90 mL; pigment = 30 mL.

11. A sketch of 12 cm by 18 cm is enlarged 1.5 times. (a) What are the new dimensions? (b) How many times the original is the new area? [4]

Answer: (a) 12 x 1.5 = 18 cm and 18 x 1.5 = 27 cm. (b) 1.5 squared = 2.25 times.

12. Pencil grades run from 6B to 6H, 14 grades in all (6B, 5B, 4B, 3B, 2B, B, HB, F, H, 2H, 3H, 4H, 5H, 6H). (a) Which grade number is HB? (b) Which is 6H? (c) How many grades apart are 6B and 6H? [4]

Answer: (a) Grade 7. (b) Grade 14. (c) 13 grades apart.

Part 4: Printmaking and Printing

Answer all questions and show your working.

13. A print edition uses 5 blocks with 20 pulls each; 8 prints are damaged. How many signed and numbered prints remain? [4]

Answer: 5 x 20 - 8 = 92 prints.

14. Each print uses 3 g of ink. How much ink is needed for 40 prints in grams, and in kg? [4]

Answer: 3 x 40 = 120 g = 0.12 kg.

15. A woodblock is 20 cm by 15 cm and 40% of its area is cut away. What area remains in cm2? [4]

Answer: 20 x 15 = 300 cm2; 300 x 0.6 = 180 cm2 remains.

16. A screen is exposed for 8 minutes with the lamp 40 cm away. (a) By the inverse-square law, what factor does the time change by at 80 cm? (b) What is the new exposure time? [5]

Answer: (a) (80 / 40) squared = 4 times. (b) 8 x 4 = 32 minutes.

Part 5: Chinese and Western Art Appreciation

Answer all questions and show your working.

17. A hanging scroll is 120 cm high and 40 cm wide. (a) What is the height to width ratio (to 1)? (b) After a 10 cm mount is added on every side, what is the area in cm2? [4]

Answer: (a) 120 / 40 = 3:1. (b) 140 x 60 = 8400 cm2.

18. How long did the Northern Song (960-1127) and the Southern Song (1127-1279) last, and what is the difference? [4]

Answer: Northern Song 1127 - 960 = 167 years; Southern Song 1279 - 1127 = 152 years; difference 15 years.

19. In one-point perspective, (a) how many vanishing points do all lines parallel to the line of sight meet at? (b) On which line must that vanishing point lie? [4]

Answer: (a) One vanishing point. (b) It lies on the eye-level (horizon) line.

20. A handscroll has three sections of 45 cm, 60 cm and 75 cm. (a) What is the total length? (b) What percentage of the total is the second section? [5]

Answer: (a) 45 + 60 + 75 = 180 cm. (b) 60 / 180 x 100 = 33.3%.

Part 6: Design, Craft and Community Art

Answer all questions and show your working.

21. An A2 poster is 420 mm by 594 mm. With 3 mm bleed on every side, what should the print file size be? [4]

Answer: (420 + 6) x (594 + 6) = 426 mm by 600 mm.

22. Clay shrinks 12% in total from drying to firing. A wet piece is 25 cm across; what is its fired diameter (1 d.p.)? [4]

Answer: 25 x (1 - 0.12) = 22.0 cm.

23. A community mural wall is 8 m by 3 m. (a) What is the total area? (b) If 6 painters each cover 2 m2 a day, how many days are needed? [4]

Answer: (a) 8 x 3 = 24 m2. (b) 24 / (6 x 2) = 2 days.

24. A school exhibition budget: venue setup $1,200, poster printing $600, materials $900, promotion $300. (a) What is the total? (b) How much is still short if $1,800 is sponsored? [4]

Answer: (a) 1200 + 600 + 900 + 300 = $3000. (b) 3000 - 1800 = $1200.
