



**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING  
AND ENTREPRENEURIAL DEVELOPMENT  
INSTITUTE FOR TEACHER PROFESSIONAL DEVELOPMENT AND  
LIFELONG LEARNING (ITPDLL)  
END OF FIRST SEMESTER EXAMINATION 2024/2025**

COURSE CODE	EJT 232
COURSE TITLE	DESIGN AND REALISATION I
DURATION	TWO HOURS

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**SECTION A (20 marks)**

**Choose the correct option (A–D) for each of the following questions.**

1. Which of the following best represents the philosophy of Design and Realisation?
  - A. Economic development only
  - B. Aesthetic appreciation
  - C. Problem solving and creativity
  - D. Engineering design only
2. The prehistoric period in design history is known for.....
  - A. Computer graphics
  - B. Stone tools and cave art
  - C. Industrial sketches
  - D. 3D rendering
3. Freehand sketching primarily helps a student to.....
  - A. Avoid measurement
  - B. Enhance digital skills
  - C. Communicate ideas quickly
  - D. Improve colour theory
4. Which of these is a rendering technique?
  - A. Composition
  - B. Dimensioning
  - C. Tonal shading
  - D. Cutting

5. Which of the following is **NOT** a stage in the design process?
- A. Analysis
  - B. Brief
  - C. Rendering
  - D. Evaluation
6. The tool most suitable for drawing circles is the.....
- A. Ruler
  - B. A Pair of Compasses
  - C. Set square
  - D. Protractor
7. Which stage involves checking if a solution satisfies the brief?
- A. Specification
  - B. Evaluation
  - C. Research
  - D. Development
8. A design chart is useful in.....
- A. tracking classroom attendance
  - B. planning classroom seating
  - C. outlining stages of the design process
  - D. estimating school budgets
9. A good rendering technique adds.....
- A. confusion to the sketch
  - B. a three-dimensional effect
  - C. colour to the paper only
  - D. irregular tones
10. The ethical use of materials in design promotes.....
- A. deforestation
  - B. wastefulness
  - C. sustainability
  - D. industrialism
11. A pictorial drawing shows.....
- A. two views only
  - B. one view in plan form
  - C. a 3D representation
  - D. only side elevation

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12. Perspective drawing helps to.....
- A. reduce drawing size
  - B. show true object length
  - C. illustrate depth and space
  - D. flatten the object
13. Greening TVET encourages.....
- A. use of synthetic chemicals
  - B. reuse of materials
  - C. exclusive urban designs
  - D. destructive trends
14. Brainstorming helps learners to.....
- A. forget less useful ideas
  - B. solve calculations quickly
  - C. generate creative ideas
  - D. use colour pencils
15. A brief is created.....
- A. before research begins
  - B. after specification
  - C. during evaluation
  - D. after lesson delivery
16. A design folio documents.....
- A. only the teacher's work
  - B. examination questions
  - C. a student's design journey
  - D. teaching scheme
17. Plane figures are included in.....
- A. rendering
  - B. technical drawing
  - C. freehand sketching
  - D. model making
18. A lesson plan is developed.....
- A. after project evaluation
  - B. for daily teaching guidance
  - C. for term examinations
  - D. to analyse homework

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19. Which technique uses lines to create tone or shade?

- A. Hatching
- B. Colour washing
- C. Plotting
- D. Erasing

20. Which of these promotes a safe and inclusive classroom?

- A. Only fast learners participate
- B. Varied learning strategies ✓
- C. Loud instruction method
- D. One-seat policy

### SECTION B (5 marks)

State whether the following statements are TRUE or FALSE.

- 21. Freehand sketching involves the use of digital tools. F
- 22. A design chart shows the sequential steps in design. T
- 23. Ethics in design emphasize honesty and integrity. T
- 24. Hatching is a technique used in rendering. T
- 25. Specifications are determined after selecting the final solution. F

### SECTION C (5 marks)

Match the design concepts and activities in Column A with their correct descriptions in Column B

Column A	Column B
26. Isometric Drawing	I. Generating ideas in a group.
27. Rendering	II. Document of the design journey
28. Design Folio	III. Shows three dimensions
29. Brainstorming	IV. Mimics visual depth and distance
30. Perspective Drawing	V. Enhances object appearance

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#### SECTION D (10 marks)

Complete the sentences below with appropriate words.

- 31 ..... refers to shading to indicate light and shadow.
- 32. The ..... outlines the main activities in a design project.
- 33..... is used to explore many ideas in group settings.
- 34 One foundational purpose of design is to..... problems.
- 35 Freehand sketches include pictorial drawings and.....
- 36..... ensures learner safety and inclusivity in class.
- 37 A..... is a short written account of the identified problem.
- 38 A..... contains the layout of learning content and strategies.
- 39 Texture and tonal shading are part of..... techniques.
- 40..... means considering environmental sustainability in design.

#### SECTION F ( 20 marks)

Answer only ONE question from this Section. All questions carry equal marks.

41.

- a) Explain the usefulness of safety precautions in design and realisation. **2marks**
- i) Discuss any TWO (2) reasons why safety precautions must be observed in the workshop. **4marks**
- ii) What is the meaning of tool safety in the workshop? **2 marks**
- b) State any TWO (2) tools' safety practices in the workshop **4 marks**
- c) Outline the importance of the term rendering in design and realisation. **2marks**
- i) Explain the role of pictorial drawing in design and realisation. **2 marks**
- ii) Describe any TWO (2) types of pictorial drawing **4 mark**

*Safety precaution in design and realization ensures that*

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42.

2 marks

a) What is free-hand sketching?

4 marks

i) State the difference between hard and soft pencils

4marks

ii) Explain the term blending in design and realisation.

b) Explain any TWO (2) significance of learning design and realisation

4 marks

c) Visitors find it difficult to locate your college. As a technical student, how will you solve this situation?

2marks

i). Write a design brief for this situation.

ii). Write two analysis questions for the situation under the following:

2marks

Material

2 marks

Shape and form

43.

a) Explain the importance of investigation in design and realisation

2marks

i) Discuss any TWO (2) reasons why investigation is necessary when making an artefact.

4marks

b) Describe any TWO (2) methods of investigating an artefact.

4marks

c) Explain the practical meaning of the term specifications in design and realisation.

2marks

i) What are annotated notes in design and realisation?

2marks

ii) Why is perspective drawing necessary in design and realisation?

2marks

iii) Draw a block of length 5cm and height 3cm, and use it to draw a one-point perspective.

4marks

pts the designer to get all the needed information a design project.



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