

PRE-TECHNICAL STUDIES SAMPLE PAPER FOR KJSEA



THE KENYA NATIONAL EXAMINATIONS COUNCIL KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT

KJSEA VI

912/1

PRE-TECHNICAL STUDIES THEORY

SAMPLE PAPER V.I

January 2025

Time: 2 hour 10 minutes

INSTRUCTIONS TO CANDIDATES

1. write your name and assessment number on the separate **answer sheet** provided.
2. write the name and code of your school on the separate **answer sheet** provided.
3. sign and write the date of the assessment on the separate **answer sheet** provided.
4. This paper consists of **two** sections: **A** and **B**.
5. **Section A** comprises Multiple Choice Questions.
6. **Section B** comprises Short Structured questions.
7. Answer **ALL** the questions in section A on the separate **ANSWER SHEET** provided.
8. Answer **ALL** the questions in section B on the separate **ANSWER SHEET** provided.
9. Answer all questions in **English**.

For official use only

SECTION B

Task	Task 1							Task 2					Task 3							
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Candidate's Score per Question																				
Max Score per Task	25							12					13							
Candidate's Score per Task																				

This paper consists of 10 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

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SECTION A (30 marks)

Read the instructions carefully.

1. You have been given this question paper and a separate answer sheet.
2. Answer **ALL** questions in this section on the **ANSWER SHEET** provided, **NOT** in the question paper.

HOW TO USE THE ANSWER SHEET

3. On the answer sheets you have been provided write the following:

YOUR ASSESSMENT NUMBER
YOUR NAME
NAME OF YOUR SCHOOL
NAME OF THE SUBJECT

4. Keep the answer sheet clean, dry and **DO NOT** fold it.
5. For each of the questions **1 – 30**, four options are given. The options are lettered **A, B, C** and **D**. In each case, only **ONE** of the four options is correct. Choose the **correct** answer from the options.
6. On the answer sheet, the correct answer (letter) is to be written.

Example

In the Question Booklet:

13. Pre-Technical studies is one of the learning areas in Junior School. Which one of the following represents the components of Pre-Technical studies?

- A. Technical, Entrepreneurship and Business Studies.
- B. Technical, Computer Studies and Business Studies.
- C. Technical, Entrepreneurship and Computer Studies.
- D. Technical, Information Technology and Business Studies

The correct answer is '**B**'.

On the answer sheet, write the letter B.

13. B

14. For each question, **ONLY ONE** letter is to be written.

SECTION A (30 marks)

Answer **All** questions in this section on the answer sheet provided.

1. Pre-Technical studies is one of the learning areas in Junior School. The **main** reason for learning Pre-Technical studies is to

A. Join tertiary college.
B. Join university.
C. Acquire practical skills.
D. Be a good citizen.

2. A carpenter wants to cut a piece of wood for a project. Which one of the following tools will the carpenter use to mark the wood?

A. Tape measure.
B. Hand saw.
C. Pencil.
D. Steel rule.

3. All lines in technical drawing have a specific use. Identify the type of line that is **correctly** matched with its description.

Types of line	Description
A. Construction line	Continuous thin line
B. Centre line	Continuous thick line
C. Outline	Thin short dashes
D. Hidden detail line	Thin chain line

4. A school is planning to put up an outdoor sculpture in the school park. Which material is **best** suited for making the sculpture?

A. Rubber.
B. Steel.
C. Plastic.
D. Bronze.

5. A Grade 9 learner wants to cut a piece of metal for a project. Choose the appropriate tool to use for cutting the metal from the following:

A. jack plane;
B. pliers;
C. hand saw;
D. hack saw.

6. Grade 8 learners visited a chemical processing factory. What precautions should they take to prevent them from inhaling chemical particles?

A. Wear safety gloves.
B. Use safety goggles.
C. Wear safety mask.
D. Use ear protection.

7. Concrete is widely used in construction. Which of the following is one of the materials used for making concrete?

A. Rock.
B. Cement.
C. Block.
D. Brick.

8. A Grade 8 learner uses a jack plane for planing a piece of wood. Which of the following is the **correct** way of protecting the sharp edge of the blade of the plane when storing? Store the plane with the

A. blade facing upward.
B. blade tightened.
C. body lying on the side.
D. blade flat on the surface.

9. Ceramic materials are made from non-metallic substances. Which one of the following combinations consists of ceramic materials?

A. Clay, tiles, glass.
B. Clay, tiles, concrete, glass.
C. Glass, porcelain, rubber.
D. Clay, tiles, stoneware, concrete.

10. A learner used a pair of snips to cut a material for a project.

The material was _____

- A. pieces of wires.
 - B. manilla paper.
 - C. plywood.
 - D. sheet metal.
11. A fire outbreak occurred in a welding workshop. The following are possible causes of the fire outbreak **except**
- A. errors caused by workers.
 - B. faulty energised electrical equipment.
 - C. improper storage of inflammables.
 - D. knowledge of handling fire.
12. During a fire safety lesson, learners were discussing methods of putting off fire. Which one of the following shows the **correct** methods?
- A. Cooling, smothering, fanning.
 - B. Smothering, cooling, starving.
 - C. Interrupting, smothering, fanning.
 - D. Smothering, interrupting, supplying air.
13. Holding tools are used to make it easier when working on certain tasks in the workshop. The following are holding tools **except**
- A. pliers.
 - B. tongs.
 - C. clamps.
 - D. screwdriver.
14. Materials are recycled for management purposes. The reason for recycling materials used for packaging is to
- A. safeguard human health.
 - B. increase employment.

- C. reduce pollution.
- D. reduce double handling.

15. Wood is classified into two categories as hardwood and softwood. Which of the following are characteristics of hardwood?

- A. Broad leaves, slow growth, heavy weight.
- B. Needle-like leaves, faster growth, heavy weight.
- C. Broad leaves, faster growth, light weight.
- D. Slow growth, broad leaves, light weight.

16. Mwakamu has completed college and wishes to start a business. Which one of the following characteristics should he have to become a successful entrepreneur?

- A. Extensive formal education.
- B. Should be a risk taker.
- C. Strong technical skills.
- D. Stability and wealth.

17. Halisi intends to establish a salon business in Jekali centre. Which of the following factors may discourage Halisi from locating the business at the centre?

- A. Favourable government incentives.
- B. Good transportation network.
- C. Low demand for the products.
- D. Low cost of labour.

18. Mwalimu Enterprises which deals with the sale of stationery had the following balances as at 31st July 2024.

	Ksh
Furniture	150,000
Stock	83,000
Creditors	30,900
Debtors	23,200
Vehicle	250,000

Which of the following represents the capital for the business?

- A. Shs 256,200.
- B. Shs 250,000.
- C. Shs 470,000.
- D. Shs 475,300.

19. Sources of personal income are classified into passive and active sources. Identify an active source from the choices below.

- A. Wages
- B. Dividends
- C. Interest
- D. Rent

20. Wange and Betty went shopping. Wange observed that Betty had an unethical budgeting and spending practice. From the following practices, identify what Wange could have observed in Betty. She

- A. balanced the income and expenses.
- B. determined the amount to save before spending it.
- C. carried excess cash when going shopping.
- D. made a budget and strictly followed it.

21. A small-scale retailer is located in a rural area. Which one of the following services offered by a wholesaler is the retailer **most** likely to benefit from?

- A. Convenient opening hours.
- B. Delivery of goods.
- C. Advertising of products.
- D. Credit facilities.

22. Jambo wants to start a business with his savings but has no business ideas. Which of the following is a source of business he can use?

- A. Checking of risks.
- B. Making a plan.

- C. Counting the cost of things.
- D. Studying the needs of people.

23. The following pictures show computer input devices. Which one is a pointing device?

- A. Keyboard.
- B. Mouse.
- C. Microphone.
- D. Scanner.

24. A trader plans to buy a portable computer with fast processing speed and large memory capacity for video editing. The computer that is most appropriate for this use is

- A. mainframe computer.
- B. laptop computer.
- C. Minicomputer.
- D. supercomputer

25. Grade 8 learners visited a workshop with computerised machines. The following are safety precautions they should observe while in the workshop **except**

- A. touching the machines.
- B. limiting movements in the workshop.
- C. asking for guidance.
- D. operating the computers with permission.

26. An entrepreneur prefers making money transactions through a mobile phone. Which one of the following measures can the entrepreneur use to secure the transaction details from unauthorized access?

- A. Installing an antivirus software.
- B. Backing up data.
- C. Using strong passwords.
- D. Locking the mobile phone in a drawer.

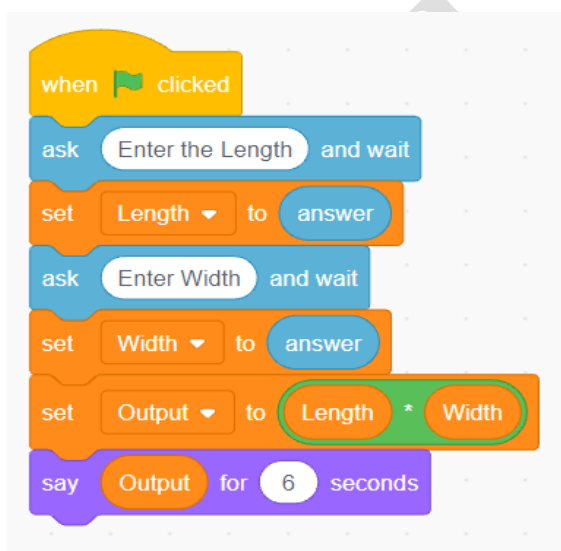
27. A learner has been typing a document in small letters and wants to continue typing, but in capital letters. Which key on the computer keyboard should the learner press?

- A. Caps Lock.
- B. Backspace.
- C. Spacebar.
- D. Enter.

28. A headteacher bought computer software to use for typing letters and preparing school budgets. Identify the category of computer software that the headteacher bought.

- A. System software.
- B. Programming software.
- C. Application software.
- D. Communication software.

29. A Grade 8 learner created the following instructions using a visual programming application.



The instructions were meant for calculating the

- A. perimeter of a rectangle.
- B. area of a square.
- C. perimeter of a square.
- D. area of a rectangle.

30. A Pre-Technical studies teacher displayed the following icons in class. Which icon would be used to retrieve a document in word processing?

- A. Save
- B. Open
- C. Undo
- D. Bol

SECTION B (50 marks)

*Answer **All** questions in this section on the answer sheet provided.*

31. State **two** differences between Technical Drawing and Artistic Drawing. (4 marks)

Technical drawing	Artistic drawing

32. Scale drawings are used to present objects in full sizes, reduced sizes or enlarged sizes.
The size of a rectangle is given as 12 x 6 cm.
What will be the size of the rectangle if it is reduced to a scale of 1:2 (3 marks)
33. A hammer is one of the tools used for general purpose.
- a) Name **two** parts of a hammer (2 marks)
- b) State **two** uses of the tool. (2 marks)
34. Using recycled materials is important for preserving our environment.
- a) Give **two** non-metallic materials that can be recycled. (2 marks)
- b) Name **one** item that can be made from each material in 34(a). (2 marks)
35. Free hand sketches are drawings made without using drawing instruments. For freehand oblique sketch of a cube whose side is 3.0 cm, what will be the size of the receding side if it is to drawn in oblique cabinet? (4 marks)
36. Seasoning is a critical step in preparing timber for use. State **three** reasons for seasoning timber. (3 marks)
37. In geometrical drawings, regular figures have shapes that have equal lengths of sides for functionality. Name **three** types of geometric regular figures (3 marks)
38. Grade 7 learners visited a nearby town to study the production activities in two factories. State **two** factors that the learners considered when comparing the size of the factories. (2 marks)

39. Kamau, a fruit vendor, had the following balances for the year ending 31st December 2023.

	Ksh
Revenues for the year	50,000
Cost of sales	20,000
Rent	6,000
Salaries	10,000
Transport expenses	1,500

Prepare a simple Income Statement for Kamau for the year ending 31st December 2023.

(3 marks)

40. Some businesses exploit consumers to gain more profits. State **two** ways in which the government of Kenya protects consumers against such exploitation. (2 marks)

41. Mwanesi is an upcoming entrepreneur specialising in juice processing. Outline **two** factors Mwanesi should consider when selecting a suitable market for the juice. (2 marks)

42. Abel plans to buy a smartphone worth Ksh.18,000 in four months. He has targeted to save at least Ksh 5,000 per month to raise the amount required.

a) Use the information above to formulate Abel's financial goals by filling in the following table. (2 marks)

Goal	Time frame	Amount required	Action plan

b) Outline **one** benefit that Abel will get from setting her financial goal. (1 mark)

43. The deputy headteacher would like to display information stored in a computer during a parent's day meeting. State **one** computer hardware device that the deputy headteacher may use to display the information. (1 mark)

44. Match each of the following computer hardware devices with their respective category. (2 marks)

Device
Flash disk
Printer

Category of device
Input

Storage

Output

45. Mwengo Company uses social media to network with its customers. Name **two** social media platforms that the company may use. (2 marks)

46. The following instructions were written to guide learners on how to start up a computer. They are not arranged in the correct order.

- (i) shut down the computer after use.
- (ii) press the power button on the computer.
- (iii) wait for the computer to start up.
- (iv) use the computer to perform a task.

Arrange the instructions in the **correct** order. (2 marks)

47. State **one** example of Visual Programming Application that can be used to create the instruction in question 46. (1mark)

48. Benard has realised that someone has created a social media account using his personal details. State the type of online threat Benard is experiencing. (1 mark)

49. Grade 8 learners prepared the following shopping list in a spreadsheet application.

	A	B	C	D
1	ITEM NAME	UNIT COST	NUMBER OF ITEMS	TOTAL COST
2	Ruler	50	5	250
3	Drawing book	100	10	1000
4	Pencils	30	5	150
5	Rubber	20	2	40
6	GRAND TOTAL COST			

Write the formula that the learners would use to calculate the grand total cost in cell D6. (2 marks)

50. A Pre-Technical studies teacher created the following instructions for determining learner's achievement in an assessment based on the criteria:

Scores > 50: learner is meeting expectation
Scores < 50: learner is approaching expectation

Start	
Enter score	
If score > 50	
Output	<u>X</u>
Else	
Output	<u>Y</u>

End

Complete the instructions by writing the output.

X _____

(1 mark)

Y _____

(1 mark)

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SAMPLE PAPER