

Candidate's Name	
School Name	
Candidate's Signature	

Assessment Number	
School Code	
Date	



**THE KENYA NATIONAL EXAMINATIONS COUNCIL  
KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT**

**KJSEA  
912/1  
PRE-TECHNICAL STUDIES THEORY  
SAMPLE PAPER  
January 2025  
Time: 1 hour 40 minutes**

**INSTRUCTIONS TO CANDIDATES**

- Write your name and assessment number in the spaces provided above.
- Write the name and code of your school in the spaces provided above.
- Sign and write the date of the assessment in the spaces provided above.
- This paper consists of **two** sections: **A** and **B**.
- Section A** comprises Multiple Choice Questions.
- Section B** comprises Short Structured questions.
- Answer **ALL** the questions in section A on the separate **ANSWER SHEET** provided.
- Answer **ALL** the questions in section B in the spaces provided in this question paper.
- Do not remove any page from this question paper.
- Answer all questions in **English**.

**For official use only  
SECTION B**

Task	Task 1							Task 2					Task 3							
	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 12 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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**Turn over**

**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.
3. Do all the necessary rough work in the question paper.

**HOW TO USE THE ANSWER SHEET**

4. Use an ordinary HB pencil.
5. Confirm that the answer sheet you have been provided with has the following:

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

6. Keep the answer sheet clean, dry and **DO NOT** fold it.
7. 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.
8. On the answer sheet, the correct answer is to be shown by drawing a **dark line** inside the box in which the letter you have chosen is 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**, in the set of boxes given for number **13**, draw a **dark line** inside the box with the letter D printed in it as indicated below.

13) [A]      [B]      [C]      [D]

9. Your dark line **MUST** be inside the box.
10. For each question, **ONLY ONE** box is to be marked in each set of four boxes.

**Turn over**

**SECTION A (30 marks)**

Answer *All* questions in this section on the answer sheets 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 from the following, the appropriate tool to use for cutting the metal.

A.



B.



C.



D.



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.

**Turn over**

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 **only** 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 the tool below 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 discussed?

- 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.

**Turn over**

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 31<sup>st</sup> 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? Kshs.

- A. 256,200
- B. 250,000
- C. 470,000
- D. 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 idea 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.



B.



C.



D.



**Turn over**

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?

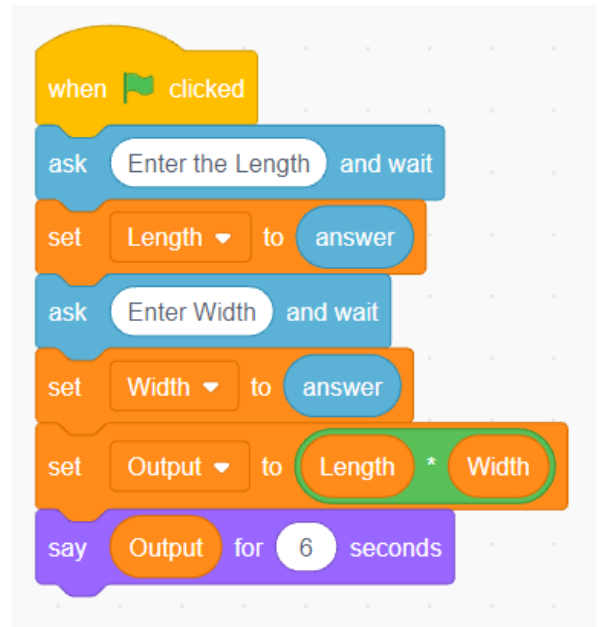
- A. Caps Lock.
- B. Backspace.
- C. Spacebar.
- D. Enter.

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.

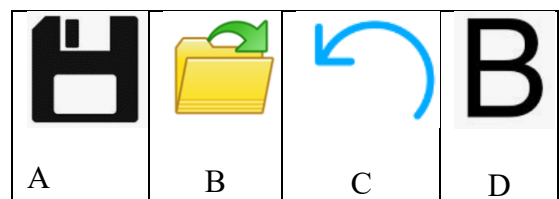
29. A Grade 8 learner created the following instructions using a visual programming application.



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?



**Turn over**

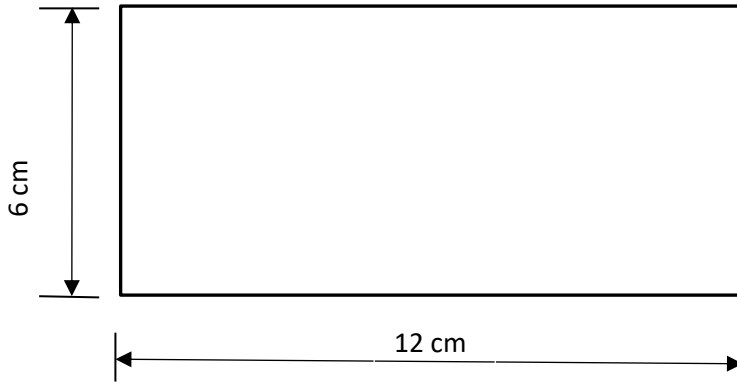
**SECTION B** (50 marks)

Answer **ALL** the questions in this section in the spaces 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.



Reduce the rectangular shape above to a scale of 1:2 (3 marks)

33. The picture below shows one of the tools used for general purpose.



a) Identify the parts labeled **P** and **Q** (2 marks)

**P** \_\_\_\_\_

**Q** \_\_\_\_\_

b) State **two** uses of the tool. (2 marks)

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34. Using recycled materials is important for preserving our environment.

a) Give **two** non-metallic materials that can be recycled. (2 marks)

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b) Name **one** item that can be made from each material in 34(a). (2 marks)

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35. Free hand sketches are drawings made without using drawing instruments. Make a free hand sketch of a cube whose side is 3.0 cm in oblique projection. (4 marks)

**Turn over**



36. Seasoning is a critical step in preparing timber for use. State **three** reasons for seasoning timber. (3 marks)

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37. In geometrical drawings, regular figures have shapes that have equal lengths of sides for functionality. Construct a square of length 4cm. (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)

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39. Kamau, a fruit vendor, had the following balances for the year ending 31<sup>st</sup> 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 31<sup>st</sup> December 2023. (3 marks)

**Turn over**

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)

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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)

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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 his financial goal. (1 mark)



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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)

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**Turn over**

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

Device	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)

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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)

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

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**Turn over**

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)

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

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

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

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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)

**THIS IS THE LAST PRINTED PAGE.**

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