

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT**2026****PRE-TECHNICAL STUDIES****Prediction 4****912/1 Time: 1 hour 40 minutes 80 marks**

Name

Assessment number

School

INSTRUCTIONS TO CANDIDATES

1. Answer all questions in Sections A and B.
2. Section A carries 30 marks. Choose ONE answer from A, B, C and D for each question. Shade the corresponding circle on the answer sheet using an HB pencil.
3. Section B carries 50 marks. Write answers and draw in the spaces provided.
4. Use a ruler, compasses and set squares where required. Leave construction arcs visible.
5. Print on A4 at 100% actual size.
6. Diagrams are not drawn to scale unless otherwise stated.

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

1. A craftsperson makes and repairs timber doors and cupboards. Which occupation is this?
 - A. Tailor
 - B. Carpenter
 - C. Electrician
 - D. Plumber
2. A learner notices a damaged electrical cable before using a machine. What should the learner do?
 - A. Continue until the machine stops
 - B. Cover it with a wet cloth
 - C. Stop and report the fault to the supervisor
 - D. Touch the exposed wire to test it
3. Which drawing is most useful for communicating the exact sizes needed to manufacture a part?
 - A. A colour pattern without measurements
 - B. A photograph with no scale
 - C. A dimensioned technical drawing
 - D. An unlabelled decorative painting
4. Which property makes rubber suitable for covering the handles of some electrical tools?
 - A. It is highly absorbent
 - B. It is a poor conductor of electricity
 - C. It rusts easily
 - D. It is transparent
5. Which part of a vernier calliper is used to measure the internal diameter of a tube?
 - A. The smaller internal jaws
 - B. The outside faces of the large jaws
 - C. The locking screw alone
 - D. The handle of the carrying case

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

- 6.** An operator safely closes the supply valve feeding a small gas flame. Which fire-control principle is used?
- A. Smothering
 - B. Starving
 - C. Cooling
 - D. Adding oxygen
- 7.** Why is a border drawn inside the edge of a technical drawing sheet?
- A. To replace the drawing title
 - B. To erase all dimensions
 - C. To change the size of every object
 - D. To define and organise the drawing space
- 8.** Which entry belongs in the title block of a technical drawing?
- A. The drawing scale
 - B. An unrelated shopping list
 - C. The school's rainfall record
 - D. The learner's lunch menu
- 9.** A drawing shows the dimension R 16 beside a curved edge. What does this mean?
- A. The curve is 16 degrees
 - B. The diameter is 16 mm
 - C. The object has 16 equal faces
 - D. The radius is 16 mm
- 10.** A 120 mm component is represented by a 60 mm line. What scale is used?
- A. 1 : 4
 - B. 1 : 1
 - C. 2 : 1
 - D. 1 : 2

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

- 11.** Which practice reduces the risk of falling from a raised work platform?
- A. Removing all protective barriers
 - B. Using a stable platform with suitable guardrails
 - C. Standing on loose stacked boxes
 - D. Leaning far beyond the platform edge
- 12.** In a conventional isometric drawing, the two receding axes are drawn at
- A. 10 degrees to the horizontal.
 - B. 45 degrees to the horizontal.
 - C. 30 degrees to the horizontal.
 - D. 90 degrees to each other on the page.
- 13.** Which tool checks whether two adjacent timber faces meet at a right angle?
- A. Try square
 - B. Hacksaw
 - C. Ball-peen hammer
 - D. Spanner
- 14.** What is the safest way to select a spanner for a nut?
- A. Grip only one corner with a loose tool
 - B. Use the largest available regardless of fit
 - C. Use one that fits the nut correctly
 - D. Replace it with a chisel
- 15.** A bicycle repairer locates near a busy cycling route. Which factor mainly influences this choice?
- A. Access to potential customers
 - B. Timber grain direction
 - C. Colour of distant hills
 - D. Depth of the nearest ocean

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

16. A learner notices that local farmers lack suitable crates for delivering vegetables. This observation can generate a business idea based on

- A. an unrelated hobby only.
- B. a computer virus.
- C. a drawing error.
- D. a gap in the market.

17. A club budgets income of Ksh 24,000 and expenses of Ksh 26,500. What does the budget show?

- A. A deficit of Ksh 50,500
- B. A surplus of Ksh 26,500
- C. A surplus of Ksh 2,500
- D. A deficit of Ksh 2,500

18. Before making school bags for sale, which information should an entrepreneur obtain from potential customers?

- A. The number of windows in a distant building
- B. Preferred design, durability and affordable price
- C. The colour of unrelated office walls
- D. The teacher's favourite television programme

19. Which intermediary mainly buys in bulk from producers and supplies retailers?

- A. Final consumer
- B. Wholesaler
- C. Manufacturer
- D. Employee

20. Which action best develops a learner's talent in technical drawing?

- A. Hiding completed work from the teacher
- B. Regular guided practice with feedback
- C. Copying dimensions without understanding
- D. Avoiding all drawing activities

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

21. Which service is normally provided by a commercial bank?

- A. Accepting deposits into customer accounts
- B. Manufacturing all currency coins
- C. Setting all shop prices
- D. Issuing every business licence

22. Why should a customer check the expiry date on a packaged food product?

- A. To avoid buying a product past its stated usable period
- B. To remove the need for proper storage
- C. To calculate the package's drawing scale
- D. To determine the producer's home address

23. Which device can store a project file and be carried between computers?

- A. Keyboard
- B. Monitor
- C. USB flash drive
- D. Speaker

24. An email is ready, but the intended recipient is missing. Which field must contain the recipient's email address?

- A. Message body only
- B. Subject
- C. Attachment name
- D. To

25. A washing machine contains a computer that controls its wash cycle. This computer is

- A. a paper filing system.
- B. a mechanical ruler.
- C. an external loudspeaker.
- D. embedded in the appliance.

SECTION A (30 marks)

Answer all questions. Each question carries 1 mark.

26. A broken laptop cannot be repaired economically. What is the most appropriate disposal route?

- A. An open fire behind the classroom
- B. A mixed household food-waste pit
- C. A nearby river
- D. A recognised electronic-waste collection or recycling service

27. A suspicious message asks a learner to send a password to keep an account active. What should the learner do?

- A. Refuse to share the password and report the message
- B. Forward the password to all classmates
- C. Reply with the password immediately
- D. Publish the password to prove ownership

28. Which application is best suited to calculating totals and displaying a chart from sales figures?

- A. Audio player
- B. Text-only messaging application
- C. Spreadsheet
- D. Drawing compass

29. Why should computer ventilation openings be kept clear?

- A. To prevent all data entry
- B. To allow cooling air to circulate
- C. To make the keyboard heavier
- D. To increase dust inside the case

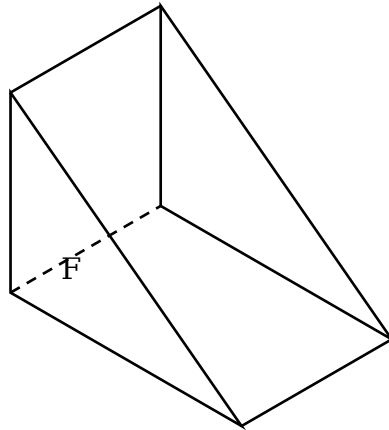
30. In visual programming, which block repeats a group of instructions a stated number of times?

- A. Play sound
- B. Say
- C. Repeat
- D. Change costume

SECTION B (50 marks)

Answer all questions in the spaces provided.

31. The triangular prism is shown in isometric projection. The triangular front face is labelled F.



Sketch the prism in oblique projection. Draw face F in its true shape with a horizontal base and a vertical side. Use parallel receding lines at 45° to the horizontal. Dimensions are not required. (3 marks)

32. A carpenter is selecting materials for lightweight indoor shelves.

(a) Name two softwood species that could be used. (2 marks)

(b) State two qualities the carpenter should check in the timber before purchase. (2 marks)

33. A workshop uses a kiln to season freshly sawn timber. State two advantages of kiln seasoning over ordinary air seasoning. (2 marks)

34. Flammable finishing materials are used in a workshop. State two precautions that reduce the risk of fire while using them. (2 marks)

35. Using a ruler and a pair of compasses, construct an equilateral triangle with sides of 65 mm. Leave the construction arcs visible. (2 marks)

36. State two properties that make glazed ceramic tiles suitable for the walls of a washroom. (2 marks)

37. Learners inspect a workshop before a practical lesson. State three hazards that should be removed or corrected before work begins. (3 marks)

38. Draw each technical line to a length of 60 mm.

(a) A hidden-detail line. (1 mark)

(b) A thin continuous extension line. (1 mark)

39. Learners investigate metallic materials used in a school workshop.

(a) Name four workshop articles made wholly or partly of metal. (2 marks)

(b) Name two ferrous metals that can be used in making workshop articles. (2 marks)

40. A small enterprise uses an online system to apply for permits and submit forms. State three benefits of using online public services. (3 marks)

41. A trader needs to pay a supplier in another country. State two relevant services a commercial bank may provide. (2 marks)

42. A learner wants to open a stationery kiosk. State two types of information a business plan should contain. (2 marks)

43. The Jitihada Enterprise Club has the following balances on 31 October 2026.

Item	Ksh
Cash in hand	18,500
Cash at bank	27,500
Stock	14,000
Tools and equipment	20,000
Capital	55,000
Loan	18,000
Creditors	7,000

Prepare the statement of financial position on the next page. (3 marks)

43. (continued)

44. A learner wishes to save Ksh 600 in six weeks. The learner saves the same amount each week.

(a) Calculate the amount to save each week. (1 mark)

(b) State one action that can help the learner meet this goal. (1 mark)

45. A school donates working computers it no longer needs to a community learning centre. Name the waste-management practice illustrated. (1 mark)

46. Learners prepare a computer room for a new class.

(a) State two measures that make the workstation safe and comfortable for users. (2 marks)

(b) Name the characteristic that enables a computer to repeat a task for long periods without becoming tired. (1 mark)

47. Study the keyboard keys.

Backspace

P

Caps Lock

Q

(a) State the function of key P when editing text. (1 mark)

(b) State the usual effect of pressing key Q once before typing letters. (1 mark)

(c) Name one device used to enter spoken sound into a computer. (1 mark)

48. A supervised workshop activity involves handling rough metal sheets. Name two suitable items of protective equipment for the hands and feet. (2 marks)

49. A learner formats the notice below in a word processor.

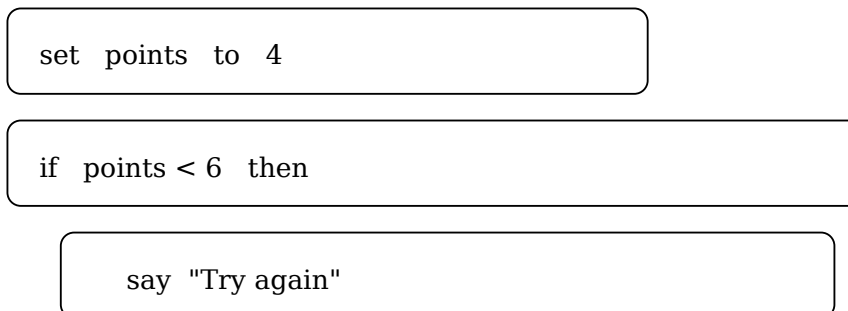
TOOL CARE

Store measuring tools carefully.

Keep tools dry.

Identify three formatting features shown in the notice. (3 marks)

50. Study the visual-programming instructions.



(a) Name the variable used. (1 mark)

(b) State the message displayed when the instructions run. (1 mark)

END OF EXAMINATION PAPER

PRE-TECHNICAL STUDIES - Prediction 4
MULTIPLE-CHOICE ANSWER SHEET

Name

Assessment number

School

Use an HB pencil. Shade one circle for each question.

1	☐ A	☐ B	☐ C	☐ D	16	☐ A	☐ B	☐ C	☐ D
2	☐ A	☐ B	☐ C	☐ D	17	☐ A	☐ B	☐ C	☐ D
3	☐ A	☐ B	☐ C	☐ D	18	☐ A	☐ B	☐ C	☐ D
4	☐ A	☐ B	☐ C	☐ D	19	☐ A	☐ B	☐ C	☐ D
5	☐ A	☐ B	☐ C	☐ D	20	☐ A	☐ B	☐ C	☐ D
6	☐ A	☐ B	☐ C	☐ D	21	☐ A	☐ B	☐ C	☐ D
7	☐ A	☐ B	☐ C	☐ D	22	☐ A	☐ B	☐ C	☐ D
8	☐ A	☐ B	☐ C	☐ D	23	☐ A	☐ B	☐ C	☐ D
9	☐ A	☐ B	☐ C	☐ D	24	☐ A	☐ B	☐ C	☐ D
10	☐ A	☐ B	☐ C	☐ D	25	☐ A	☐ B	☐ C	☐ D
11	☐ A	☐ B	☐ C	☐ D	26	☐ A	☐ B	☐ C	☐ D
12	☐ A	☐ B	☐ C	☐ D	27	☐ A	☐ B	☐ C	☐ D
13	☐ A	☐ B	☐ C	☐ D	28	☐ A	☐ B	☐ C	☐ D
14	☐ A	☐ B	☐ C	☐ D	29	☐ A	☐ B	☐ C	☐ D
15	☐ A	☐ B	☐ C	☐ D	30	☐ A	☐ B	☐ C	☐ D