

Candidate's Name		Assessment No.	
School Name		School Code	
Candidate's Sign		Date	



JUNIOR SCHOOL ASSESSMENT

GRADE 9

JESMA
004

004-2025

912/1 - PRE-TECHNICAL STUDIES - (THEORY) 912/1

Time: 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment number in the space provided.
2. Write the name and code of your school in the spaces provided.
3. Sign and write the date of the assessment in the spaces 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 in the spaces provided in the question paper.
9. Answer all questions in English.

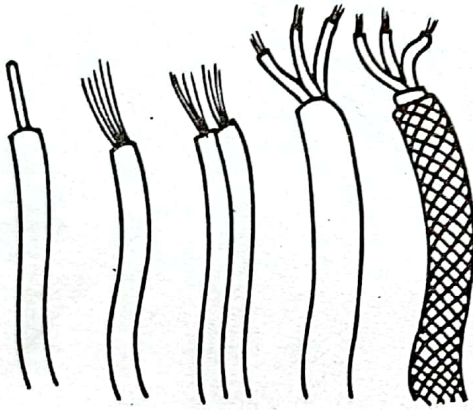
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SECTION B

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
Candidates																				
Score per Question																				
Max Score per Task	25							13					12							
Candidates Score per Task																				

This paper consists of 8 printed pages.
Candidates should check the question paper to ascertain that
all the pages are printed as indicated and that no questions are missing.

SECTION A (30mks)

- Which of the following is **not** a hand tool used in woodworking?
A. Try square
B. Sledge hammer
C. Chisel
D. Jack plane
- Name the type of metal used to make the following item.



- | | |
|-----------|--------------|
| A. Copper | B. Iron |
| C. Bronze | D. Aluminium |
- Poor storage of items on shelves may
A. cause rust
B. cause fire
C. attract dust
D. fall and break
- Which of the following careers can be influenced by Pre-technical Studies?
A. Medical doctor
B. Water
C. Athletics
D. Software engineer

- Which of the following **best** describes safety at the workplace?
A. Working without prior training
B. Exposing one to risky behaviour
C. Using PPEs valves
D. Ignoring safety precautions
- Which of the following is **not** considered a natural non-metallic material?
A. Clay B. Sand
C. Wool D. Iron
- Which of the following is **not** a safety pre-caution at work place?
A. Wearing safety gear
B. Using damaged tools
C. Following laid procedures
D. Working in a tidy environment
- Which is the **most** appropriate reason why stainless steel is widely used in manufacturing of kitchen appliances?
A. It is light weight
B. It is resistant to corrosion
C. It is a good conductor of electricity
D. It is magnetic
- A Kindergarten is planning to construct a playing ground. Which of the following non-metallic materials will make a safe and durable play ground?
A. Concrete B. Rubber
C. Grass D. Clay

10. Why is recycling plastic bottles considered as **best** practice in environmental sustainability?
- Plastic is a bio-degradable
 - To reduce landfill waste and conserves resources
 - Plastic bottles can be re-used without processing
 - Recycling plastic lowers cost of production
11. When assembling a car engine, which is the **most** appropriate tool commonly used to tighten bolts to a specific torque valve?
- Socket wrench
 - Impact wrench
 - Adjustable wrench
 - Screw driver
12. Which of the following tools is basically used for measuring and marking straight lines on wood during carpentry work?
- Hammers
 - Screw drivers
 - Rulers/Measuring tape
 - Pliers
13. Which of the following tools is used for driving nails inside a wood?
- Spanner
 - Hammer
 - File
 - Chisel
14. Which tool is **best** suited for cutting thin metals?
- Woodsaw
 - Hacksaw
 - Plane
 - Mallet
15. What is the purpose of a vice in a workshop? To
- measure angles
 - hold pieces securely
 - sharpen tools
 - drive screws
16. When using powerful tools, which is the **most** important appropriate action to take?
- Working quickly
 - Not wearing safety glasses
 - Wearing appropriate personal protective equipment
 - Using damaged equipment
17. Which of these tools is used for smoothening wooden surfaces?
- Wrench
 - Plane
 - Drill
 - Awl
18. What is a drill used for in carpentry? To
- cut wood
 - create holes
 - tighten bolts
 - measure distances

19. What is the purpose of a file as used in Pre-technical Studies? To
- A. join pieces of metal
 - B. smoothen or shape metal or wood
 - C. cut large pieces of wood
 - D. tighten screws
20. Which of the following is a safety precaution when working in a workshop?
- A. Leaving tools scattered on the floor
 - B. Working in a properly lit area
 - C. Keeping the work area clean and organised
 - D. Wearing loose clothing
21. Which of the following is a hand-held tool used to tighten nuts?
- A. Files
 - B. Pliers
 - C. Spanners/Wrench
 - D. Chisel
22. Which of the following is the **most** suitable element in ensuring effective communication in the workplace?
- A. Loud speaking
 - B. Clear and concise instructions
 - C. Using complex jargon
 - D. Ignoring feedback
23. In technical drawings, what is the **main** objective of using standardised symbols and abbreviations? To
- A. make the drawings more artistic
 - B. confuse those who read them
 - C. ensure universal understanding
 - D. save paper
24. When making a presentation on a technical project, which of the following visual aids would be **most** effective for demonstrating the steps of a process?
- A. A long text document
 - B. A detailed photograph of tools
 - C. A flowchart or step-by-step diagram
 - D. An abstract piece of art
25. Which of the following describes "active listening" during a technical discussion?
- A. Planning your response while someone else is speaking
 - B. Avoiding eye-to-eye contact to show respect
 - C. Paying close attention and asking clarifying questions
 - D. Only hearing what you want to hear
26. In a technical report, what is the **main** purpose of conclusion? To
- A. introduce new information.
 - B. summarise the main findings and recommendations
 - C. provide irrelevant details
 - D. only give personal opinions

27. Which of the following is an example of a hybrid computer used in specialised applications?
- A. Fuel pump
 - B. Smartphone
 - C. Calculator
 - D. Microcomputer
28. Learners were asked to find out the consequences of internet addiction. Which of the following reflects the outcome?
- A. Improved memory retention
 - B. Reduced ability to perform tasks
 - C. Enhanced social interaction skills
 - D. Increased time spent outdoors
29. The Latin word "computare" means to
- A. compute
 - B. program
 - C. design
 - D. calculate
30. Which ICT tool for communication is used for sending formal written communication in a business environment?
- A. E-mail
 - B. Instant messaging
 - C. Video calls
 - D. Social media

SECTION B (50 marks)

31. Give **four** general safety rules and regulations at the workplace? (4mks)
- a) _____
 - b) _____
 - c) _____
 - d) _____
32. A Carpenter uses a saw for various purposes. List **three** uses of a saw? (3mks)
- a) _____
 - b) _____
 - c) _____
33. Give the meaning of the following abbreviations used in drawing. (4mks)
- a) I/D _____
 - b) DRG _____
 - c) A/C _____
 - d) OLD _____

34. Identify **four** factors to consider when selecting a communication channel? (4mks)

- a) _____
- b) _____
- c) _____
- d) _____

35. State **three** injuries caused by fire at work places. (3mks)

- a) _____
- b) _____
- c) _____

36. There was a fire breakout in your neighbourhood. State **three** fire fighting methods that can be used to put out the fire. (3mks)

- a) _____
- b) _____
- c) _____

37. State **four** differences between Talent and Ability? (4mks)

	Talent	Ability
a)		
b)		
c)		
d)		

38. List **three** security features of Kenyan denomination below? (3mks)



- a) _____
- b) _____
- c) _____

39. Explain with examples the difference between private goods and public goods? (4mks)

40. Differentiate between needs and wants as used in Business Studies? (2mks)

41. Explain three characteristics of a good entrepreneur? (3mks)

- a)

- b)

- c)

42. Describe one type of business transaction in Kenya. (1mk)

43. Explain the following terms as used in Computer Science? (3mks)

a) Data

b) Data processing

c) Programming

44. State one role of visual programming in ICT? (1mk)

45. A computer expert was invited at your work place to discuss ways of reducing physical threats to digital devices. List down two possible threats he gave. (2mks)

a) _____

b) _____

46. List down the four categories of computer hardware devices. (2mks)

a) _____

b) _____

c) _____

d) _____

47. What is the main source of computer Malware's and Viruses? (1mk)

48. Distinguish between RAM and ROM? (1mk)

49. What is a Cloud Storage? (1mk)

50. Name the technology used in making the Second generation of computers? (1mk)
