

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



003-2025

JUNIOR SCHOOL ASSESSMENT GRADE 9

JESMA
003

- PRE-TECHNICAL STUDIES -

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

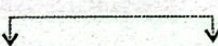
1. Peter works with a construction company. He is ever experiencing different hazards during his course of work. Which of the following hazards is he **NOT** likely to encounter when working raised platforms?

A. Slips and trips
B. Sunburn
C. Electric hazards
D. Falling objects

2. Joan and Joy are preparing for a Pre-technical drawing class. Their teacher hands them a set square. Mary asks. What is the primary function of a set square in technical drawing?

A. Creating accurate circles
B. Measuring length
C. Constructing angles
D. Drawing straight lines

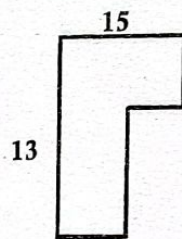
3. The following are technical drawing lines. Identify the type of line that is **correctly** matched with its image.

	Types of line	Line image
A.	Construction line	
B.	Centre line	
C.	Outline	
D.	Hidden detail line	

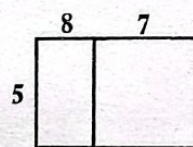
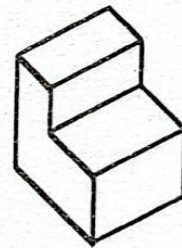
4. Calvance is an interior designer. He is called by a client to arrange house furniture. How is plane geometry going to help him improve efficiency?

A. It ensures all elements are proportionate and functional
B. It makes furniture look more modern
C. It reduces the number of items needed in a room.
D. It adds more space to the room

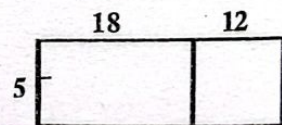
5. Brian is working on technical drawing to show a front view of building as shown below. Which type of projection will be more appropriate?



Top view



Front view

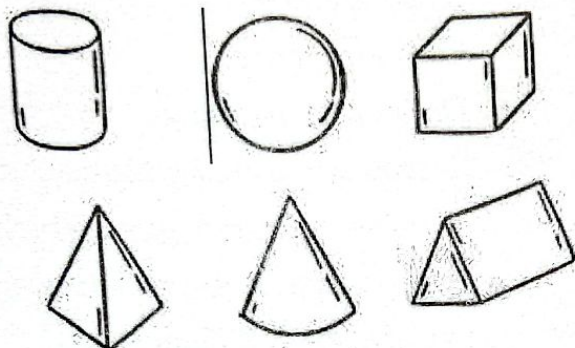


Right side view

- A. Orthographic Projection
B. Perspective Projection
C. Oblique Projection
D. Isometric Projection
6. A Grade 9 learner wants to add shading in her drawing to create depth. Which is the **most** appropriate technique she can use to these?

A. Blending
B. Stippling.
C. Pointillism.
D. Cross-hatching

7. A Grade 9 learner wants to draw 3D objects as displayed below. What is the learner required to learn to perform the task?



- A. Colour Theory
B. Basic Shapes
C. Perspective drawings
D. Shading
8. Metallic materials are used in the health sector. Which one of the following metals is often used in medical implants because of biocompatibility?
A. Copper B. Zinc
C. Aluminum D. Titanium
9. A learner found the constructors mixing sand, water, cement and gravel. Which composite materials were they making?
A. Mud
B. Fiberglass
C. Concrete
D. Soda ash
10. 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.

11. Ivy is preparing for a recycling presentation for her school. She says reusing materials can reduce waste. What is one sustainable way to use materials in production?
A. Burning waste
B. Disposing of all materials after use
C. Reusing or recycling materials
D. Using non-renewable resources
12. During a pre technical studies lesson Nicole, Yvonne, Maya, James engaged in a discussion on primary angle used in oblique projection drawings. Who gave the correct answer?
A. Nicole : 30°
B. Maya : 45°
C. Yvonne : 60°
D. James : 90°
13. Lavender, a safety officer, conducts seasonal trainings on handling flammable materials safely. How can these improve on workplace safety?
A. By decreasing costs
B. By promoting complacency
C. By increasing risks
D. By preventing accidents
14. Mr. Watete was guiding his learners on materials often used in building boats. Which one of the following is often used?
A. Plywood
B. Fiberglass
C. Carbon fiber
D. Aluminum
15. Which of the following items is likely a product of clay?
A. Metal fork
B. Wooden Chair
C. Plastic soda bottle
D. Ceramic mug

16. Business ideas come from various sources. Which of the following businesses is influenced by observing market trends?
- Selling products suggested by customers
 - Transport services to remote locations
 - Opening a branch of your business
 - A plumber starting his own business
17. What is a key characteristic of an entrepreneur?
- Avoiding risk
 - Being afraid of failure
 - Being innovative and willing to take calculated risks
 - Preferring routine tasks
18. 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 |
19. What is 'market research'?
- Selling products in a local market
 - Gathering information about potential customers and their needs
 - Advertising a new product
 - Managing the finances of a business
20. A small-scale retailer is located in a rural area. What can tell the trader about the target market?
- The group of customers a business aims to serve.
 - The total number of potential customers in the world
 - A marketing strategy used by a business
 - The location where a business is operated
21. Which of the following is an example of a 'need' that a business might address?
- A new video game
 - Food and shelter
 - A luxury car
 - Designer clothing
22. Moses was asked by his teachers to list down uses of computers. Which characteristic allows computers to perform many different tasks?
- Versatility
 - Speed
 - Storage Capacity
 - Accuracy
23. Nabendu taught his learners that the CPU is the functional component of the computer. What is the primary function of the CPU?
- To store data
 - To process instructions and perform calculations
 - To display information on the screen
 - To connect to the internet
24. What is the purpose of RAM in a computer?
- To permanently store data
 - To process instructions
 - To temporarily store data that the computer is actively using
 - To display images on the screen
25. What does 'syntax' refer to in programming?
- The meaning of the code
 - The rules of how the code is written
 - The logic of the program
 - The design of the user interface

26. Which of the following is used to store data in Visual Basic?
- Control
 - Variable
 - Event
 - Form
27. What is an 'Event' in Visual Basic programming?
- A specific action that can occur, like a button click
 - A type of variable
 - A line of code.
 - Design element
28. A teacher engaged learners in using different applications. What is the **main** purpose of Application Software?
- To manage the computer's hardware
 - To connect the computer to a network

- To translate programming code
 - To perform specific tasks for the user
29. A computer expert installed antivirus in a computer. What is the role of the antivirus?
- Store data
 - Make accessibility easier
 - Protect the computer from malware
 - Makes typing faster
30. Patience was asked to write about a computer. Which of the following shows the definition of computer?
- A device that stores raw data
 - A device used to perform tasks
 - A device that sends and receives information
 - A device that processes data

SECTION B (50 marks)

31. State **two** differences between metallic and non-metallic materials. (4mks)

	Metallic materials	Non-metallic materials
a)		
b)		

32. Juma and Aisha learn Pre-technical Studies in their schools. Explain **three** importance of Pre-technical Studies in day-to-day life. (3mks)

- _____
- _____
- _____

33. Calipers are tools used to measure inside and outside dimensions of hollow objects. Name **three** types of calipers (3mks)

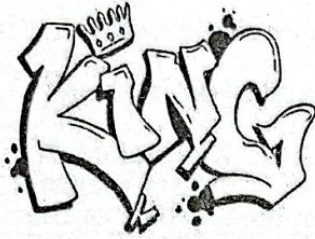
- _____
- _____
- _____

34. A divider is used to mark equal distances or divide into equal parts. Name **four** professionals using it. (4mks)

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

35. Group the following drawings as either *graffiti*, *caricature illustration* or *portrait drawings*. (4mks)

a)



b)



c)



d)



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

- a) _____
 b) _____
 c) _____

37. Paul is a carpenter and is planning to make a circular table. Name **four** tools he will need for marking out and measuring. (4mks)

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

38. The government has been sensitising citizens to pay taxes. State **two** reasons why it is important to pay taxes. (2mks)
- a) _____
- b) _____
39. Maria is interested in setting up a business from scratch. Give any **three** factors that she should consider before setting up the business? (3mks)
- a) _____
- b) _____
- c) _____
40. Precious wants to purchase a new motorbike costing Kshs 3000. Currently she has saved Kshs 500 and earns Kshs 100 per week from allowance. How many weeks will it take Precious to save enough money to purchase the motorbike if she decides to save all her earning? (2mks)
- a) _____
- b) _____
41. Name **four** methods of payment in a business? (4mks)
- a) _____
- b) _____
- c) _____
- d) _____
42. Francis was interested in setting financial goals both short and long time. What is the difference between short term financial and longtime financial goal? (1mk)
- _____
43. A computer teacher asked learners to explain the difference of data and information. What is your response? (1mk)
- _____

44. Complete the following table by matching input devices with their respective category. (Light pen, Printer, Magnetic ink character reader, Flash disk, Speakers, DVD) (3mks)

Input devices	Storage devices	Output devices

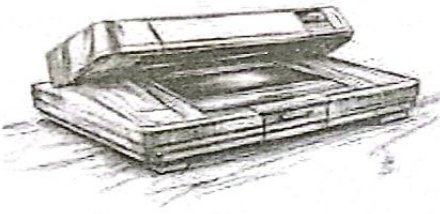
(1mk)

45. What is data privacy?

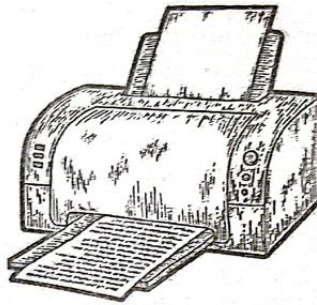
(3mks)

46. Name the digital devices shown in the pictures below?

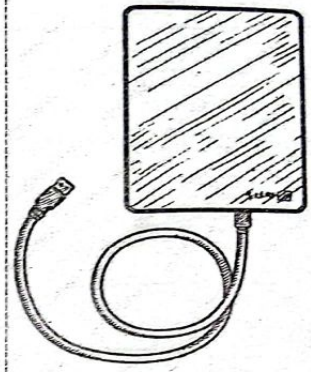
a)



b)



c)



47. State **one** reason why observing personal safety online is important?

(1mk)

48. Draw and label a diagram to show data processing cycle?

(1mk)

49. What is the primary way that visual programming languages differ from traditional text-based programming languages?

(1mk)

50. Grade 7 learners were asked to give **two** reasons why ICT tools can improve efficiency in the work place. What are these reasons?

(2mks)

- a) _____
- b) _____

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