

SECTION A (30MARKS)

1. Juma a grade 9 learner wants to design and build machines as his future career. Which occupation will best fit him?
A. Mechanic B. Engineer
C. Driver D. Carpenter
2. Which one of the following is an importance of observing safety measures in a learning environment?
A. To improve living standards
B. To reduce accidents
C. To empower learners
D. To increase production
3. During a pre-technical lesson, Jane drew the image shown below.



What type of drawing is it?

- A. Artistic drawing
 - B. Geometrical drawing
 - C. Pictorial drawing
 - D. Technical drawing
4. During a pre-technical studies project, a learner wanted to make a belt. Which of the following materials was the best for him to use?
A. Metal B. Wood
C. Leather D. Plastic
 5. Which one of the following is a correct use of a Vernier callipers as a tool used in a work environment?
A. Measure the height of cylindrical objects
B. Determine the density of liquids
C. Measure external diameter of solids
D. Punching holes for buttons on a fabric
 6. Mwakideo a grade 9 learner used a blanket to cover fire that had caught on a frying pan while cooking. Which method of firefighting was this?
A. Interrupting B. Starving
C. Smothering D. Cooling

7. Which one of the following is **not** a feature of a drawing sheet layout in technical drawing?

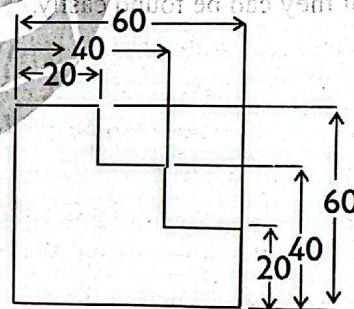
- A. Title block
- B. Border lines
- C. Margins
- D. Paragraph alignment.

8. The symbol below is used in technical drawing. What does it stand for?



- A. Diameter
- B. T line
- C. Perpendicular
- D. Centre line

9. The figure below shows a rectangle of length 8cm.



What type of dimensioning is represented by the image above?

- A. Angular dimensioning
 - B. Parallel dimensioning
 - C. Chain dimensioning
 - D. Radial dimensioning
10. A plain scale is used in scale drawing. Which one of the following is not a feature of a plain scale?
A. The first unit on the left is subdivided into smaller equal parts.
B. The zero (0) is placed at the start of the subdivisions.
C. The main units are numbered to the left from the zero.
D. It is used to represent a unit and its next smaller subdivision

11. Esther wants to make a ladder to use it to access the roof top of her house. Which one of the following should she do to ensure the ladder is safe enough to use?
- Position the ladder so that the base is set slightly away from the wall for stable support.
 - Make the ladder completely vertical so it occupies less ground space.
 - Fix the top of the ladder loosely so it can adjust as she climbs.
 - Use thinner steps to reduce the total weight of the ladder.
12. Which of the following statements is one of the ways of maintaining tools in a workplace?
- Clean the tools after use and store them in their proper places.
 - Leave tools where they were last used so that they can be found easily.
 - Share tools without checking their condition to save time.
 - Keep tools exposed in open spaces so they can dry faster.
13. A group of learners used a G-clamp during a pre-technical studies lesson. Which of the following is a likely way they used it for. To;
- cut a piece of wood
 - decorate the edges of furniture
 - hold pieces of wood together
 - measure the length of a piece of wood
14. The tool below is used to grip, bend or cut wires. What is the correct name of the tool?



- Scissors
 - Tinsnips
 - Pliers
 - Claw hammer
15. Nyakio wants to start a kiosk in his nearby town. Which one of the following is the least factor to consider before starting the kiosk?
- She should consider the population of the area to know if there are enough customers.

- She should consider the level of competition to understand how many similar businesses exist.
 - She should consider the transport network to ensure goods can reach the kiosk easily.
 - She should consider the climate of the area
16. Mutunga has completed a course in mechanics and plans to start a workshop. Which of the following is a reliable business idea for him to consider?
- He should find out which vehicle repair services are most needed in his town.
 - He should focus only on selling spare parts without offering any repair services.
 - He should repair only luxury cars, even though few people in town own them
 - He should provide car washing and polishing services without performing any mechanical work.
17. Which one of the following is a good reason for making a budget before purchasing goods and services?
- It encourages borrowing money from others to make larger purchases.
 - It ensures that you only buy goods that are on sale, regardless of need.
 - It helps to plan expenses and avoid spending more than you can afford.
 - It allows you to buy goods impulsively without worrying about costs.
18. Leiyan harvested some bags of beans and wanted to sell them. Which factor should mostly influence his choice of market?
- The number of other vendors selling beans there and the price the buyers are willing to pay.
 - The availability of storage facilities at the market and the number of stalls selling other crops.
 - The distance of the market from his farm and the type of transport used by other sellers.
 - The opening hours of the market and how often buyers visit other markets nearby.

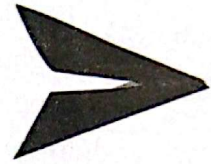
19. What does a wholesaler represent in the distribution of goods and services?
- A. A producer B. A retailer
C. A consumer D. An intermediary
20. Which one of the following is not an ethical way of using talents?
- A. Using your talent to help others in the community
B. Giving credit to others when using their ideas.
C. Working well with others to achieve common goals.
D. Disrespecting the rules in games, exams or creative work.
21. Which of the following is not a factor of production?
- A. Land B. Labour
C. Profit D. Capital
22. Marketing refers to the activities a business uses to promote, advertise and deliver goods or services to the right customers. Which of the following is **not** an importance of marketing to a business? It
- A. brings in less people, which decreases the chances of selling
B. helps a business stand out from competitors
C. gives the business a personality that people recognize and trust.
D. brings new customers and keeps old ones coming back
23. A grade 9 teacher gave his learners an assignment to type in their digital devices at home. Which one of the following storage devices can a learner use to transfer the assignment from his computer to the teacher's computer?
- A. Internal Hard Disk Drive
B. Universal Serial Bus
C. Internal Solid-State Drive
D. Processor Unit

24. Which one of the following icons below can a learner use to attach a document into an email in order to send?

A.



B.



C.



D.



25. The largest and most powerful computer is;

- A. Analogue computers
B. Dedicated computers
C. Super computers
D. Micro computers

26. The following are online safety threats related to a work place. Which one is **not**?

- A. Cyberbullying B. Hacking
C. Engineering D. Ransomware

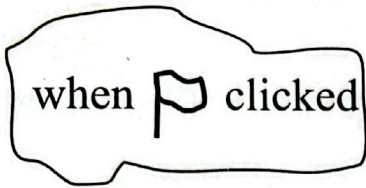
27. Which one of the following is the **best** way to protect data in a digital device from unauthorized access?

- A. Use of a strong password
B. Installing an updated antivirus
C. Backing up data regularly
D. By not accepting friend requests from unknown people

28. Grade 9 learners were discussing uses of different computer software. Which of the following computer software is **correctly** matched with its function?

- A. Word processors - used to calculate, analyze and organize data
B. Spreadsheets - used to type and format files such as essays
C. Operating system - used to control and manage the operations of a computer.
D. Presentation software - used to create a database such as school management system

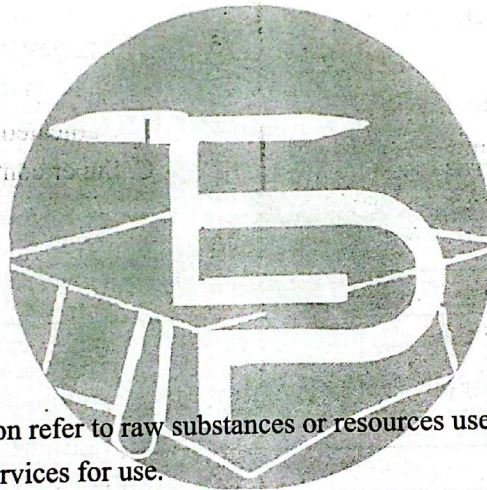
29. In classification of computers, which one below is **not** a criteria used when classifying computers. By;
- A. size B. speed C. purpose D. functionality
30. The code block shown below is used in coding. What is the function of the code block?



- A. To create motion of the sprite B. To allow a sprite repeat action several times
- C. To start a game D. To end an existing game

SECTION B

31. In the space below, Draw a rectangular cuboid of length 4cm, width 3cm and height 5cm in cavalier oblique projection. (3marks)



32. Materials used in production refer to raw substances or resources used in the process of making products or provision of services for use. (2marks)
- (a) State **three** materials used in production

- (b) Explain how each material mention in (a) above is used in production (2marks)

33. Raised platforms are elevated working surfaces designed to allow workers to perform tasks above ground. (1 mark)

- (a) State one example of a raised platform used in a work environment. (1 mark)

- (b) Name one safety measure that should be observed when using raised platforms. (1mark)

34. Fire is the burning of materials that produces heat, light and smoke. It can destroy property and cause injuries if not controlled.
(a) State **two** common causes of fire in a workplace. (2 marks)

35. Using a pencil, a ruler and a pair of compasses, construct a semicircle of diameter 7cm in the space provided below. (3marks)

36. Composites are materials made by mixing two or more different substances to make them stronger. List **two** examples of composite materials. (2 marks)

37. State **three** examples of physical safety threats in a workplace. (3 marks)

38. Name the following types of lines used in technical drawing. (2marks)
(a) (b)



39. Jane was requested by his pre-technical studies teacher to name **four** non-metallic materials. What was her response? (4 marks)

40. In setting financial goals, the acronym SMART is used. The first two letters stand for:
S – Specific
M – Measurable.
Fill in the remaining three letters (A, R, T) with their correct meanings. (3 marks)

41. Bookkeeping is the process of recording daily financial transactions of a business.
Identify **two** basic records maintained in bookkeeping. (2marks)

42. Mention **two** methods a business can use to market its goods and services. (2 marks)

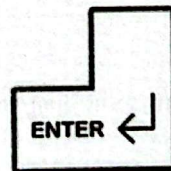
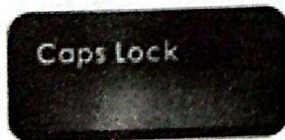
43. Entrepreneurship involves identifying business opportunities and taking risks to create and grow enterprises. Explain **three** qualities of a successful entrepreneur. (3 marks)

44. List **two** factors that determine the size of a production unit. (2marks)

45. Name **two** (PPE) that are used to protect a user in a work environment. (2marks)

46. John has an old, non-operational computer. He wants to reuse some of its parts. State one way he can make use of the CPU case. (1 mark)

47. (a) State the function of each of the following computer keyboard keys below. (2marks)



(b) State one device used to input sound into a computer (1mark)

48. Computer hardware refers to the physical and tangible components of a computer. State the **four** categories of computer hardware. (2marks)

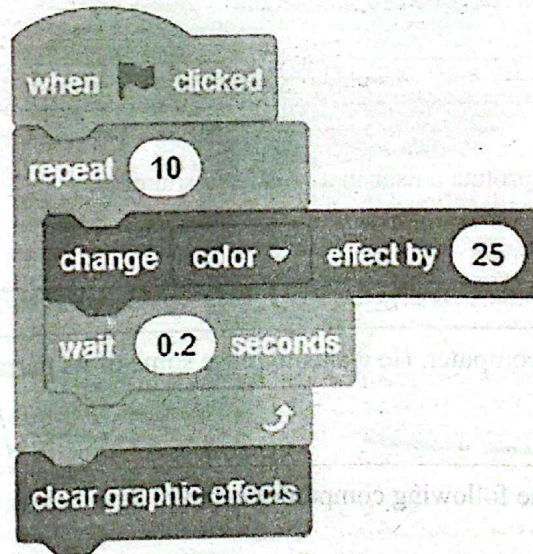
49. The paragraph below was typed and formatted in a word processor; **Entrepreneurship** is important in today's economy. It helps create *new jobs*, encourages *innovation*, and supports community growth. The main benefits can be summarized as:

- *Job creation*
- *Innovation*
- *Economic growth*

This shows that entrepreneurship plays a vital role in improving the living standards.

Identify **three** formatting features applied to the paragraph. (3marks)

50. The following instructions are created using a visual programming application.



(a) Identify one input statement in the instructions (1mark)

(b) State the process in the instructions (1mark)
