



GRADE 9 PRETECHNICAL STUDIES

SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)

Choose the correct answer from the alternatives given.

1. The main reason for learning Entrepreneurship in Pre-Technical Studies is to:
A. Become a banker
B. Get employed only
C. Create and run businesses
D. Avoid studying other subjects
2. What is the main purpose of safety signs in the workshop?
A. To decorate the room
B. To guide users on how to weld
C. To warn and inform about danger
D. To show product prices
3. Which of the following is used to fasten wooden pieces together permanently?
A. G-clamp
B. Wood glue
C. Measuring tape
D. Mallet
4. Which of the following materials is best suited for making a cooking pot?
A. Plastic
B. Aluminium
C. Glass
D. Wood
5. Identify the tool used to tighten and loosen bolts.
A. Mallet
B. Spanner
C. Divider
D. Pliers
6. One of the following is NOT a safety precaution when using electricity. Which one?
A. Dry your hands before touching a switch
B. Use worn-out wires
C. Switch off appliances not in use
D. Keep water away from sockets
7. Which property makes metals suitable for making electrical wires?
A. Malleability
B. Strength
C. Conductivity
D. Density
8. One of the following is a non-metallic material. Which one is it?
A. Copper B. Zinc C. Plastic D. Aluminium
9. Which machine is commonly used for mixing concrete on construction sites?
A. Welding machine
B. Milling machine
C. Concrete mixer
D. Coffee machine
10. The following are types of lines in technical drawing EXCEPT:
A. Hidden lines
B. Border lines
C. Construction lines
D. Background lines
11. Which one is an example of an output device?
A. Monitor
B. Mouse
C. Keyboard
D. Scanner
12. A laptop is preferred for fieldwork because it is:
A. Fast
B. Cheap
C. Portable
D. Upgraded
13. Which device connects a computer to the internet?
A. Modem B. Keyboard
C. Scanner D. Printer

14. The part of a business that shows total investment by the owner is known as:
 A. Liability
 B. Loan
 C. Expense
 D. Capital
15. When a consumer is overcharged, which body should they report to?
 A. KNEC
 B. KRA
 C. CA
 D. CAK
16. Which of the following is the correct formula for calculating profit?
 A. Profit = Sales - Capital
 B. Profit = Expenses - Capital
 C. Profit = Revenue - Expenses
 D. Profit = Sales + Capital
17. A source of passive income is:
 A. Wage
 B. Salary
 C. Interest
 D. Commission
18. Which characteristic is NOT important for a good entrepreneur?
 A. Creativity
 B. Laziness
 C. Flexibility
 D. Patience
19. Which factor should be considered before selecting a business site?
 A. Beauty of the area
 B. Friends nearby
 C. Proximity to customers
 D. Number of trees
20. Identify the correct order of the communication process:
 A. Feedback → Receiver → Message → Sender
 B. Sender → Message → Receiver → Feedback
 C. Receiver → Feedback → Message → Sender
 D. Message → Receiver → Sender → Feedback

SECTION B: STRUCTURED QUESTIONS (80 MARKS)

21. You and your classmates are making a simple wooden stool during a practical lesson in the workshop. Your role is to help with measuring, drawing and fire safety.

a) List three safety rules to observe during technical drawing. (3 Marks)

i. _____

ii. _____

iii. _____

b) List three measuring tools used in the project. (3 Marks)

i. _____

ii. _____

iii. _____

c) State two reasons why dimensioning is important in technical drawing. (2 Marks)

i. _____

ii. _____

d) Sketch a simple rectangle and show its height and width dimensions. (4 Marks)

Width

3

e) Identify three fire prevention measures when working with wood and glue. (3 Marks)

i. _____

ii. _____

iii. _____

f) Explain how to safely use a CO₂ fire extinguisher in case of a workshop fire. (2 Marks)

i. _____

ii. _____

g) Explain three ways of safely putting out a workshop fire. (3 Marks)

i. _____

ii. _____

iii. _____

h) What is the purpose of a technical drawing before starting a workshop project? (1 Mark)

22. Mark wants to start a small bakery business.

a) Mark buys ingredients worth KSh 1,500 and sells cakes worth KSh 2,800. Calculate his profit. Show your working. (3 Marks)

Working:

4

b) Suggest three characteristics that will help Mark succeed as an entrepreneur. (3 Marks)

i. _____

ii. _____

iii. _____

c) Why is it important to keep business records? (2 Marks)

d) State two challenges Mark is likely to face when starting his bakery. (2 Marks)

i. _____

ii. _____

e) What factors should Mark consider when choosing a location for his bakery? (3 Marks)

i. _____

ii. _____

iii. _____

23. Anita uses a computer at home for learning, typing assignments and saving photos.

a) Name four input devices she uses to interact with the computer. (4 Marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Identify three output devices she uses to receive information. (3 Marks)

i. _____

ii. _____

iii. _____

c) Differentiate between hardware and software. (4 Marks)

Hardware:

Software:

d) State three benefits of using cloud storage. (3 Marks)

i. _____

ii. _____

iii. _____

e) Anita downloaded an email attachment with viruses.

List two ways to protect her computer from viruses. (2 Marks)

i. _____

ii. _____

f) Outline four online safety measures to observe when using the internet. (4 Marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

24.

a) Name four drawing instruments. (4 Marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

b) Define the term dimensioning. (2 Marks)

c) State three types of dimensioning. (3 Marks)

- i. _____
- ii. _____
- iii. _____

25. a) Define the term entrepreneur. (2 Marks)

b) Give four ICT tools used in marketing goods and services. (4 Marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

c) What is impulse buying? (2 Marks)

26.

a) Name four types of raised platforms. (4 Marks)

i. _____

ii. _____

iii. _____

iv. _____

b) State three safety measures to observe when using raised platforms. (3 Marks)

i. _____

ii. _____

iii. _____

c) Give two reasons why safety should be observed when using raised platforms. (2 Marks)

i. _____

ii. _____

PRE-TECHNICAL STUDIES - ANSWERS

SECTION A: MULTIPLE CHOICE (20 MARKS)

1. **C. Create and run businesses**
2. **C. To warn and inform about danger**
3. **B. Wood glue**
4. **B. Aluminium**
5. **B. Spanner**
6. **B. Use worn-out wires**
7. **C. Conductivity**
8. **C. Plastic**
9. **C. Concrete mixer**
10. **D. Background lines**
11. **A. Monitor**
12. **C. Portable**
13. **A. Modem**
14. **D. Capital**
15. **C. CA**
16. **C. Profit = Revenue - Expenses**
17. **C. Interest**
18. **B. Laziness**
19. **C. Proximity to customers**
20. **B. Sender → Message → Receiver → Feedback**

SECTION B: STRUCTURED QUESTIONS

21.

a) Safety rules in technical drawing (3 marks)

- i. Sit in a proper posture while drawing
- ii. Keep drawing instruments clean and safe
- iii. Avoid distractions and sharp object misuse

b) Measuring tools (3 marks)

- i. Ruler
- ii. Tape measure
- iii. Try square

c) Importance of dimensioning (2 marks)

- i. Shows accurate size of objects
- ii. Helps in proper construction/manufacturing

d) Rectangle sketch (4 marks)

- Width is the horizontal side
- Height is the vertical side



e) Fire prevention measures (3 marks)

- i. Keep flammable materials away from fire
- ii. Switch off electrical appliances after use
- iii. Store glue and chemicals safely

f) Using CO₂ extinguisher (2 marks)

- i. Pull the safety pin
- ii. Aim at the base of fire and squeeze handle

g) Ways of putting out fire (3 marks)

- i. Using fire extinguisher
- ii. Smothering with sand or blanket
- iii. Turning off electricity/fuel source

h) Purpose of technical drawing (1 mark)

- To guide construction accurately before starting a project

22.

a) Profit calculation (3 marks)

Profit = Sales - Cost
= 2,800 - 1,500
= **KSh 1,300**

b) Entrepreneur characteristics (3 marks)

- i. Creativity
- ii. Hard work
- iii. Risk-taking

c) Importance of records (2 marks)

- Helps track profit and loss
- Helps in financial decision making

d) Challenges (2 marks)

- i. Lack of capital
- ii. Competition

e) Business location factors (3 marks)

- i. Near customers
- ii. Availability of raw materials
- iii. Good transport access

23.

a) Input devices (4 marks)

- i. Keyboard
- ii. Mouse
- iii. Scanner
- iv. Microphone

b) Output devices (3 marks)

- i. Monitor
- ii. Printer
- iii. Speakers

c) Hardware vs Software (4 marks)

- **Hardware:** Physical computer parts you can touch (e.g. keyboard, CPU)
- **Software:** Programs that run on a computer (e.g. Windows, MS Word)

d) Cloud storage benefits (3 marks)

- i. Easy access anywhere
- ii. Saves space on device
- iii. Data backup and security

e) Virus protection (2 marks)

- i. Use antivirus software
- ii. Avoid downloading unknown files

f) Online safety (4 marks)

- i. Do not share passwords
- ii. Use strong passwords
- iii. Avoid unknown websites
- iv. Do not share personal information

24.

a) Drawing instruments (4 marks)

- i. Pencil
- ii. Set square
- iii. Compass
- iv. Ruler

b) Dimensioning (2 marks)

- The process of showing measurements of an object in a drawing

c) Types of dimensioning (3 marks)

- Linear dimensioning
- Angular dimensioning
- Radial dimensioning

25.

a) Entrepreneur (2 marks)

- A person who starts and runs a business to make profit

b) ICT marketing tools (4 marks)

- Social media
- Email
- Websites
- Mobile phones

c) Impulse buying (2 marks)

- Buying goods without planning or thinking carefully

26.

a) Raised platforms (4 marks)

- Ladders
- Scaffolds
- Stages
- Platforms/benches

b) Safety measures (3 marks)

- Ensure stability before use
- Do not overload platform
- Use safety gear

- | | | | | | |
|-----------|----------------------------------|-----------|---------------|-----------|---------------|
| c) | Importance | of | safety | (2 | marks) |
| i. | Prevents | accidents | | and | injuries |
| ii. | Ensures safe working environment | | | | |