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# Technology Olympiad GRADE 7

**DATE:** 28 AUGUST 2025

**TIME:** 90 MINUTES

**INSTRUCTIONS:**

1. This booklet has 30 multiple choice questions and 10 open ended questions.
2. Use the answer sheet provided.

   Circle the letter corresponding to your answer.
3. All working details must be done in the space provided.
4. Calculators are permitted.
5. Diagrams are not necessarily drawn to scale.
6. The first 30 questions (Section A) carry 1 mark each and the last 10 questions (Section B)

   carry 2 marks each.
7. You have 90 minutes for the paper which works out to an average of 2.25 minutes per question.
8. Read the questions carefully before answering.
9. Visit the website: www.saolympiads.co.za.

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**Grade Seven Technology Olympiad 2025**

**SECTION A**

**Indicate the most correct answer by writing the correct letter on the answer sheet provided.**

1. Which of the following is an example of a constrain that will be included in a design brief?
   A You have three hours to compete the task.
   B Work with a partner.
   C Take care when working with a scissors.
   D The mechanisms must be $180^0$ turn. (1)

2. Construction lines are ----.
   A Continous light and dark lines.
   B Thick and dark lines.
   C Thin continuous lines used to help construct other lines.
   D Dash and dot lines. (1)

3. The standard measurement unit used in drawings is -----.
   A mm.
   B km.
   C cm.
   D m (1)

4. The term / phrase given to the statement of how you intend to develop solution to the given problem or need is called ------.
   A Specifications.
   B Communication.
   C Design brief.
   D Evaluation. (1)

5. Which one of the following is the first stage of the design process?
   A Communication.
   B Make.
   C Evaluate.
   D Investigate. (1)

6. A 3-D isometric drawing is a drawing that is drawn at an angle of -------.
   A $25^0$
   B $30^0$
   C $60^0$
   D $45^0$ (1)

7. A shell structure is a -------- that can carry a load.
   A Shallow.
   B Hollow.
   C Dense.
   D Solid. (1)

8. A skeleton is an example of a --------- structure.
   A Soid.
   B Shell.
   C Frame.
   D Hollow. (1)

9. In first class lever the ----------.
   A The fulcrum is always on the right hand side of the lever.
   B The load is between the fulcrum and the effort.
   C The fulcrum is between the effort and the load.
   D The effort is between the fulcrum and the load. (1)

10. A person who is well-trained and whose job involves research is a/an -------.
    A Ergonomics.
    B Scientist.
    C Technologist.
    D Artisan. (1)

11. An example of a second class lever is a ---------.
    A Wheel barrow.
    B Office light-duty stapler.
    C Fishing rod.
    D Pair of scissors. (1)

12. How easy or comfortable something is to use.
    A Aesthetic.
    B Ergonomics.
    C Artistic.
    D Technological. (1)

13. This structure encloses and protects objects.
    A Frame.
    B column
    C Shell
    D Hardness. (1)

14. What strengthening technique does a cardboard box have?
    A Corrugation.
    B Lamination.
    C Bonding.
    D Folding. (1)

15. Changing raw material into a new product is known as ----------.
    A Salting.
    B Re-using.
    C Recycling.
    D Processing. (1)

16. The material used for making a rain coat must be ----------.
    A fire proof.
    B heat resistance.
    C water proof.
    D plastic. (1)

17. The following are examples of flameable liquids **EXCEPT** ----------.
    A petrol.
    B wood.
    C benzene.
    D paraffin. (1)

18. Movement that goes back and forth in a straight line is called ---------- motion.
    A oscilating.
    B linear
    C reciprocating.
    D rotary. (1)

19. In hydraulic system, force is transferred from master cylinder to -------- cylinder.
    A piston.
    B connecting tube.
    C syringe A.
    D slave (1)

20. Pneumatic and hydraulic systems are used to transmit ---------- from one point to another.
    A mass.
    B weight.
    C distance.
    D force. (1)

21. Force that is transferred from one point to another through a liquid is called ------
    A pneumatic system.
    B hydraulic system.
    C plunger system.
    D syringe system. (1)

22. ---------- is the change of a liquid state to gas state.
    A freezing
    B melting
    C sublimation
    D evaporation (1)

23. What does 'Thermal barrier' mean?
    A toxic.
    B flammable.
    C water proof.
    D heat proof. (1)

24. Which metal does not rust?
    A iron.
    B steel.
    C aluminium.
    D wrought iron. (1)

25. Metals that contain iron are called ----------.
    A ferrous metals.
    B pure metals.
    C non – ferrous metals.
    D semi metals. (1)

26. Technology has made communication easier. Which of following is **NOT** a way technology allows us to communicate?
    A video calls with friends and family.
    B sending instant messages.
    C exchanging letters by post.
    D sharing information on social media. (1)

27. Which of the following is **NOT** a negative impact of social media?
    A cyberbullying and misinformation and online harassment.
    B spread of misinformation and fake news.
    C increased feeling of isolation and loneliness.
    D improved problem-solving skills (1)

28. What is the source of electrical ernegy in a circuit?
    A switch.
    B cell/battery.
    C conductors.
    D bulb/lamp. (1)

29. A cell converts ------- energy to ---------- energy.
    A chemical to potential.
    B electrical to chemical.
    C chemical to electrical.
    D potential to chemical. (1)

30. Three of the following organisations assist refugees with food and other supplies **EXCEPT**: ----------.
    A International Red Cross.
    B The United Nations.
    C Rotary International.
    D Red Crescent Movement. (1)

## SECTION B

31. Name any one cellular network found in South Africa. (2)
32. People who assist trapped passangers at an accident scene are called --------- (2)
33. Magnets have two ends/poles. Name them. ---------- pole and ---------- pole. (2)
34. A water-borne disease that is common in Refugee camps is ----------. (2)
35. Name the electrical component in a circuit that controls the flow of current. (2)
36. What is the most visited province in South Africa? (2)
37. Which animal is known as “The ship of the desert” (2)
38. Earth has how many satelites? (2)
39. Which planet is known as the “Morning Star” or “Evening Star”? (2)
40. Who was the first person to walk on the moon? (2)

**TOTAL MARKS: 50**