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GUIDE

GRADE 9

Technology

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A. Paper structure for the olympiad

Multiple Choice questions and short answer questions.

B. How it aligns with the curriculum?

CAPS topics including:

- DESIGN SKILLS (First angle orthographic projection.)
  (3D Objects in orthographic projection)
  (Scale)
- STRUCTURES (Forces and loads acting on structures)
  (Properties of varios construction materials)
- MECHANICAL SYSTEMS AND CONTROL (Pneumatic and Hydraulic systems)
  (Pascal"s principle)
- PULLEY SYSTEMS (Function and types of pulley system.)
- GEAR SYSTEMS (Types of gears)
- RESISTORS (resistors and resistance)
- SIMPLE CIRCUITS (Components,series and parallel connection)
  (Ohm"s Law and calculation of Current, resistanc and voltage)
- PRESERVING METALS
- PRESERVING FOOD
- TYPES OF PLASTIC AND USES

C. How it goes beyond?

The olympiad includes some general knowledge questions based on technological topics, mining and current affairs.

D. Sample questions

1. Multiple Choice Questions

1. Which type of gear arrangement is commonly used to chang the direction Of motion?

   A Spur gears
   B Bevel gears
   C Worm gears
   D Rack and pinion gears

2. The type of force exerted on the bridge by the vehicles passing over the bridge.

   A Stable force
   B Unstable
   C Even
   D Dynamic

3. How can you preserve onions and cucumbes?

   A Salting
   B Drying
   C Pickling
   D Cooking

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2. Short answer questions

1. State one advantage of pneumatic system.

2. Name the reddish substance that forms on ferrus metals.

3. What is the name of a mechanical property of a material that allows resistance scratching, wear and tear?