

vishaal Raut  
29 8-C

**FIRST-TERM EXAMINATION**  
**CLASS VIII 2024-25**  
**SCIENCE**

**Time Allowed : 3 Hours**

**Maximum Marks: 80**

**General Instructions:**

- (i) This question paper consists of 42 questions in 4 sections A B C and D.
- (ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
- (iii) Section-A - question no. 1 to 29 are MCQ's, AR's questions and Case Based Questions carrying 1 mark each and picture based for 2 Marks
- (iv) Section-B - question no. 30 to 34 are short answer type questions, carrying 2 marks each. Answers to these questions should in the range of 30 to 50 words.
- (v) Section-C - question no. 35 to 39 are short answer type questions, carrying 3 marks each. Answers to these questions should in the range of 50 to 80 words.
- (vi) Section-D - question no. 40 to 42 are long answer type questions, carrying 5 marks each. Answers to these questions should in the range of 80 to 100 words.
- (vii) Wherever necessary, neat and properly labelled diagrams should be drawn.

**SECTION A (40MARKS)**

1. In a tug-o-war, when two teams are pulling a rope, and the rope does not move towards any team, it implies that
  - a) Equal force is being implied in the same direction
  - b) Equal force is being applied in opposite direction
  - c) No force is applied in any direction
  - d) Cannot be explained
2. Four children were asked to arrange forces due to rolling, static and sliding friction in an increasing order. Their arrangements are given below. Choose the correct arrangement.
  - a) rolling, static, sliding.
  - b) static, rolling, sliding.
  - c) rolling, sliding, static.
  - d) sliding, static, rolling.
- 3.



Fig. 12.1

A boy is shown pushing the box from right to left. The force of friction will act on the box

- a) from right to left
- c) vertically downwards
- b) from left to right
- d) vertically upwards

4. A boat or an aeroplane has a pointed or tapering front/head. Why?
  - a) To increase the friction of fluid
  - b) To reduce the friction of fluid
  - c) To look good
  - d) For no reason
5. The waves produced on the earth's surface is called
  - a) seismic wave
  - b) longitudinal wave
  - c) micro wave
  - d) radio wave
6. PCRA stands for
  - a) Public Conservations Research Association
  - b) Petroleum Conservation Research Association
  - c) Public Council of Research Association
  - d) Partial Counting of remaining Amendment
7. Which of the following is obtained from coal tar?
  - a) Petrol
  - b) Coke
  - c) Air
  - d) Naphthalene balls
8. What do we call the process of converting dead vegetation into coal?
  - a) Carbonisation
  - b) Destructive Distillation
  - c) Fractional Distillation
  - d) Liquefaction
9. The first oil well was drilled in
  - a) USA
  - b) USSR
  - c) UK
  - d) India
10. Burning of charcoal in a closed room will produce
  - a) Carbon dioxide
  - b) Nitrogen dioxide
  - c) Carbon monoxide
  - d) All of these
11. Fire extinguisher-
  - a) Cut off the supply of air
  - b) Bring down the temperature of fuel
  - c) Both a and b
  - d) None of these
12. Bacteria have been grouped into four different types based on their shapes. Identify the different types and select the correct statement regarding it.



- a) *Vibrio cholerae* is an example of type S, which causes cholera.
- b) *Lactobacillus* is an example of type P, which helps in curdling of milk.
- c) Type R bacteria are rod-shaped and are called as bacilli bacteria.
- d) *Streptococcus* is an example of type Q bacteria that causes pneumonia

13. Identify the given microorganism and select the incorrect statement regarding it



- a) It is a saprophyte commonly called as black bread mould.
  - b) It reproduces by means of spores.
  - c) It results in the spoilage of food materials.
  - d) It is a parasitic bacteria that causes various diseases in plants, animals and humans.
14. Which option shows the name and function of preservatives used in jam and squashes?
- a) Sodium benzoate that prevents the action of microorganisms.
  - b) Salt that stops the activity of microorganisms.
  - c) Sodium sulphate that prevents the action of microorganism.
  - d) Oil that makes the environment unsuitable for the survival of microorganisms.
15. Which option shows the incorrect example of diseases in plants or animals and their corresponding harmful agents?

| S.No. | DISEASE       | AFFECTS | CAUSED BY |
|-------|---------------|---------|-----------|
| 1.    | Anthrax       | Plants  | Fungus    |
| 2.    | Cholera       | Humans  | Bacterium |
| 3.    | Citrus canker | Plants  | Bacteria  |
| 4.    | Rust of wheat | Plants  | Fungus    |

- a) 1
  - b) 2
  - c) 3
  - d) 4
16. Pathogenic micro organisms present in host cells are killed by medicines called
- (a) pain killer
  - (b) antibodies
  - (c) antibiotics
  - (d) vaccines
17. **Assertion (A):** When plants and animals die, bacteria and fungi present in the soil convert the nitrogenous wastes into nitrogenous compounds to be used by plants again. Certain other bacteria convert some part of them to nitrogen gas which goes back into the atmosphere.
- Reason (R):** The percentage of nitrogen in the atmosphere remains more or less constant.
- a) Both A and R are true, and R is correct explanation of the assertion.
  - b) Both A and R are true, but R is not the correct explanation of the assertion.
  - c) A is true, but R is false.
  - d) A is false, but R is true.

18. **Assertion (A):** Airplanes have special shape that resembles with birds.  
**Reason (R):** Scientists take inspiration from nature to design airplanes so as to reduce friction experienced by air.
- a) Both A and R are true, and R is correct explanation of the assertion.
  - b) Both A and R are true, but R is not the correct explanation of the assertion.
  - c) A is true, but R is false.
  - d) A is false, but R is true.
19. **Assertion (A):** Coal, Petroleum and Natural gas are called fossil fuels.  
**Reason (R):** Coal, Petroleum and Natural gas are formed by dead remains of living organisms.
- a) Both A and R are true, and R is correct explanation of the assertion.
  - b) Both A and R are true, but R is not the correct explanation of the assertion.
  - c) A is true, but R is false.
  - d) A is false, but R is true.
20. Name of the Bacteria which fixes atmospheric nitrogen spirogyra.
21. Food is obtained from animals for which they are reared, is called as \_\_\_\_
22. The same kind of plants grown and cultivated on a large scale at a place is called \_\_\_\_\_.
23. Separation of the grains from the chaff is called \_\_\_\_\_.
24. Sliding friction is \_\_\_\_\_ than rolling friction.

25. Read the passage carefully and answer questions based on it :-  
Food preservation is the process of treating and handling food to stop or slow down spoilage, ensuring it remains safe and nutritious for longer periods. Common methods include drying, which removes moisture to inhibit microorganism growth; refrigeration and freezing, which slow down microbial activity; canning, which involves heating food and sealing it in airtight containers; and using chemical preservatives like salt, sugar, and vinegar to prevent spoilage. These techniques are essential for reducing food waste, ensuring food security, and maintaining the quality and availability of various foods throughout the year.

I What is the primary purpose of food preservation?

- a) To enhance the color of food
- b) To stop or slow down spoilage
- c) To increase the size of food
- d) To add vitamins to food

II. Which method of food preservation involves removing moisture from food?

- ✓ a) Canning
- b) Refrigeration
- c) Drying
- d) Freezing

III. How does refrigeration and freezing help in food preservation?

- a) By adding flavour to food
- b) By killing all microorganisms
- c) By slowing down microbial activity
- d) By removing moisture from food

IV. What role do chemical preservatives like salt, sugar, and vinegar play in food preservation?

- a) They enhance the colour of food
- b) They inhibit microorganism growth
- c) They increase the size of food
- d) They add vitamins to food

26. The discovery of atmospheric pressure gives a fact that air has weight. The weight of the atmosphere presses down on the earth's surface and creates pressure on it. The pressure at any point exerted by the weight of the air above is called atmospheric pressure.

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The atmospheric pressure on the earth's surface at sea level is one hundred thousand pascals i.e., 100 KPa. The atmospheric pressure at a place decrease with an increase in altitude. The atmospheric pressure at a place is the force exerted by the weight of the air column above that place. As we go up the length of the air column above us decreases. This means that its weight and the atmospheric pressure are smaller at higher places than at sea level. If the pressure of the atmosphere is removed suddenly, our blood vessels and tissues will rupture due to the pressure of the blood and other fluids inside. Thus, the spacemen also wear special pressurised suits as in space there is no air and hence, no air pressure. At the top of a mountain, some people can feel their ears "popping" due to a decrease in air pressure. The ears pop to balance the difference in pressure inside and outside the body.

- a) What is atmospheric pressure?
- b) Explain one application of it
- c) We know that there is a huge amount of atmospheric pressure on us. But we do not experience its effect. Why?

27. The air that we breathe today is more polluted than it was before. More factories more vehicles greater use of aerosols and sprays, increasing number of refrigerators and air conditioners that release CFC gases, have all contributed toward pollution. When certain chemicals from the smoke and fumes rise up into the air they mix with the water vapour in the clouds and make it acidic. When rain or snow falls from such polluted clouds, it is also acidic in nature. This acidic rain falls on the leaves of trees, on the fertile soil and also runs into lakes and rivers. The effects of the rain are disastrous. Trees slowly lose their leaves and die. Fertile soil turns acidic and damages the plants and crops. The fish and animals living in lakes or seas are killed. Even our drinking water can be affected. Many forests all over the world have suffered severe damage on account of acid rains. Before it is too late, we must try and put a stop to the millions of vehicles and chimneys pouring harmful fumes into the air.

Q.1. Which gas is supporter of combustion of fuels?

- (a) Oxygen
- (b) Hydrogen
- (c) Carbon monoxide
- (d) None of the above.

Q. 2. Emissions of sulphur dioxide and nitrogen oxide causes:

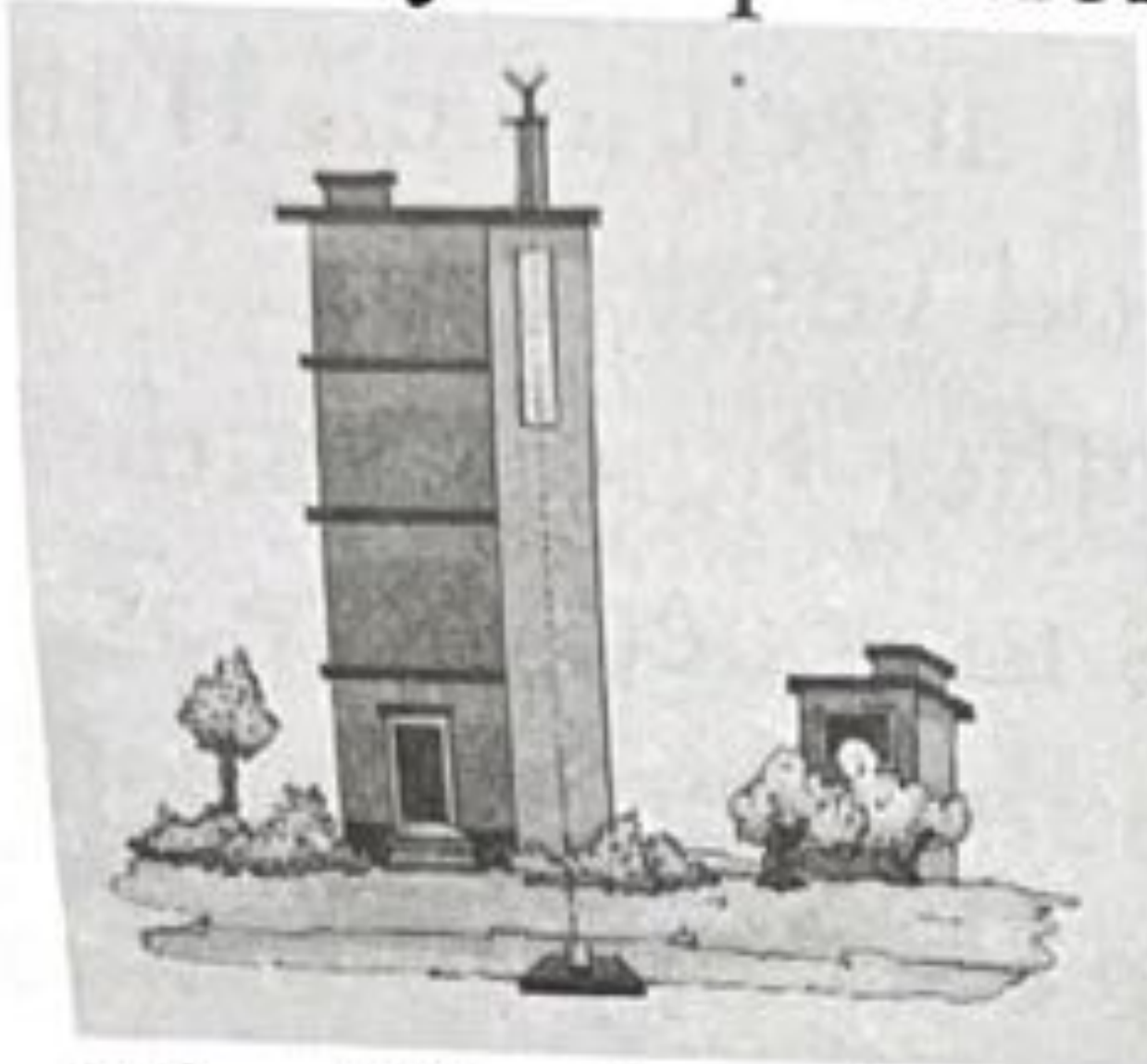
- (a) Pollution
- (b) Acid rain
- (c) Deforestation
- (d) None of the above.

Q.3. What do you understand by rapid & spontaneous combustion?

OR

How carbon dioxide is responsible for global warming

28. Identify the position of lightning conductor and the copper plate in figure.



29. Identify the given figure and give two advantages of using the same –



### SECTION-B (10MARKS)

30. You spill a bucket of soapy water on a marble floor accidentally. Would it make it easier or more difficult for you to walk on floor? Why?

31. How is earthquake caused?

OR

What are seismic waves? How are these waves recorded?

32. (a) Describe two harmful effects of using fossil fuels?

(b) Why petrol is exhaustible natural resource, whereas sunlight is not? Explain.

OR

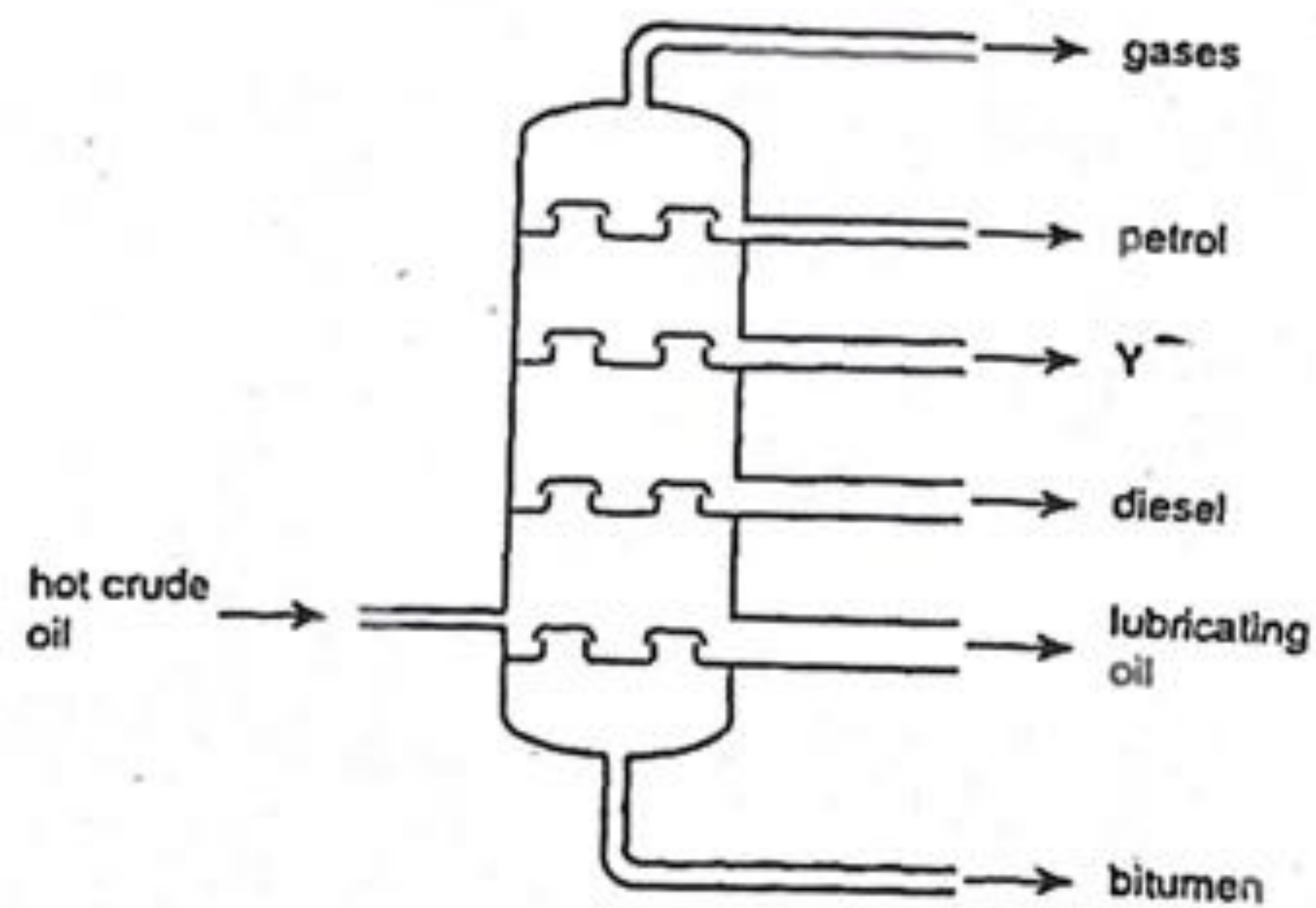
While driving, what are the tips, we must follow to save petrol/ diesel/natural gas?

33. Farmers have to add manure to the fields to replenish the soil with nutrients. Give reasons.

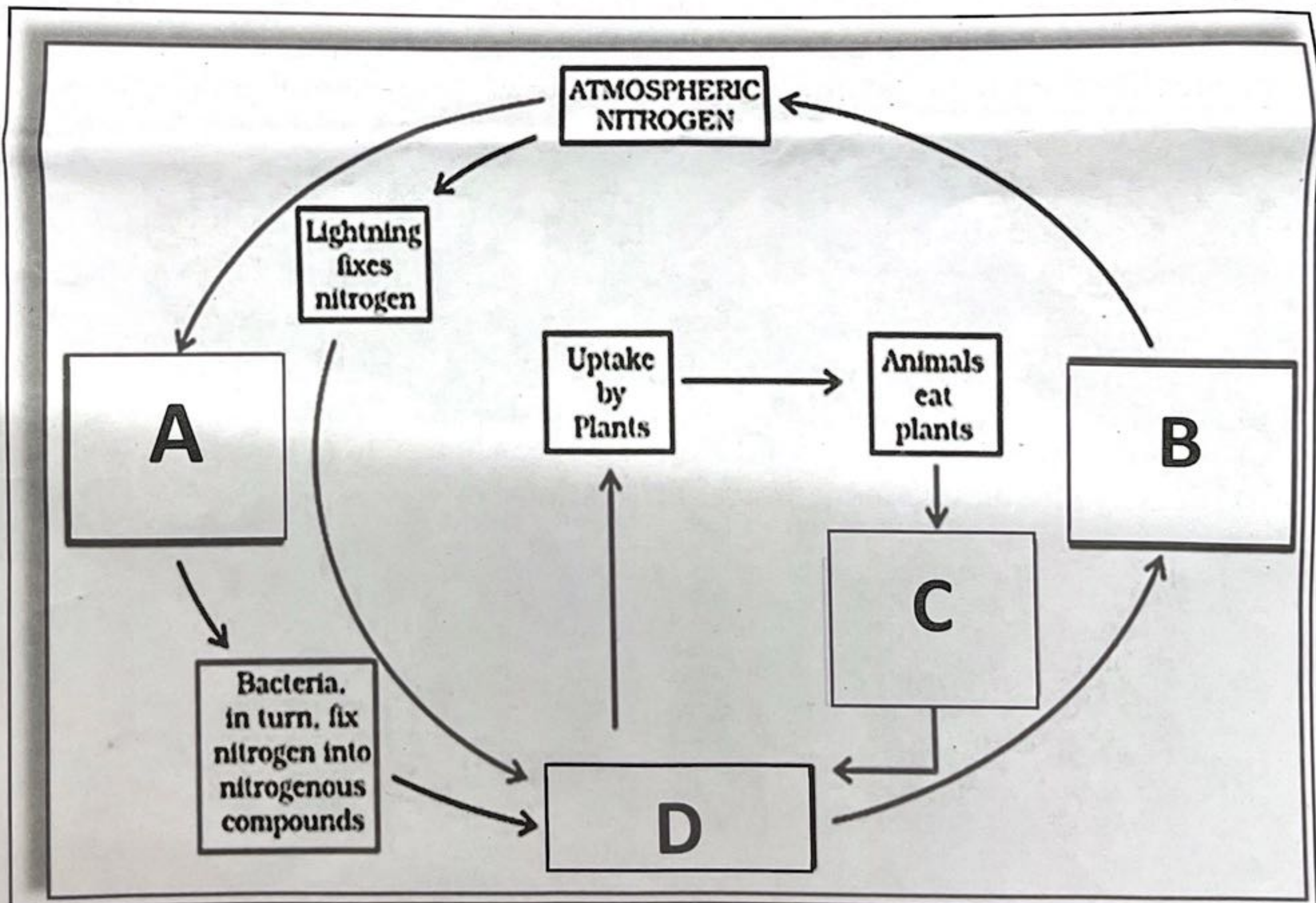
34. What are inflammable substances? Give examples.

SECTION-C (15MARKS)

- 35. Describe an activity to prove that water exerts pressure at the bottom of container which depends on height of water column.
- 36. What precaution would you take if lightning occurs while you are outside the house?
- 37. Observe the diagram & answer the questions given below.



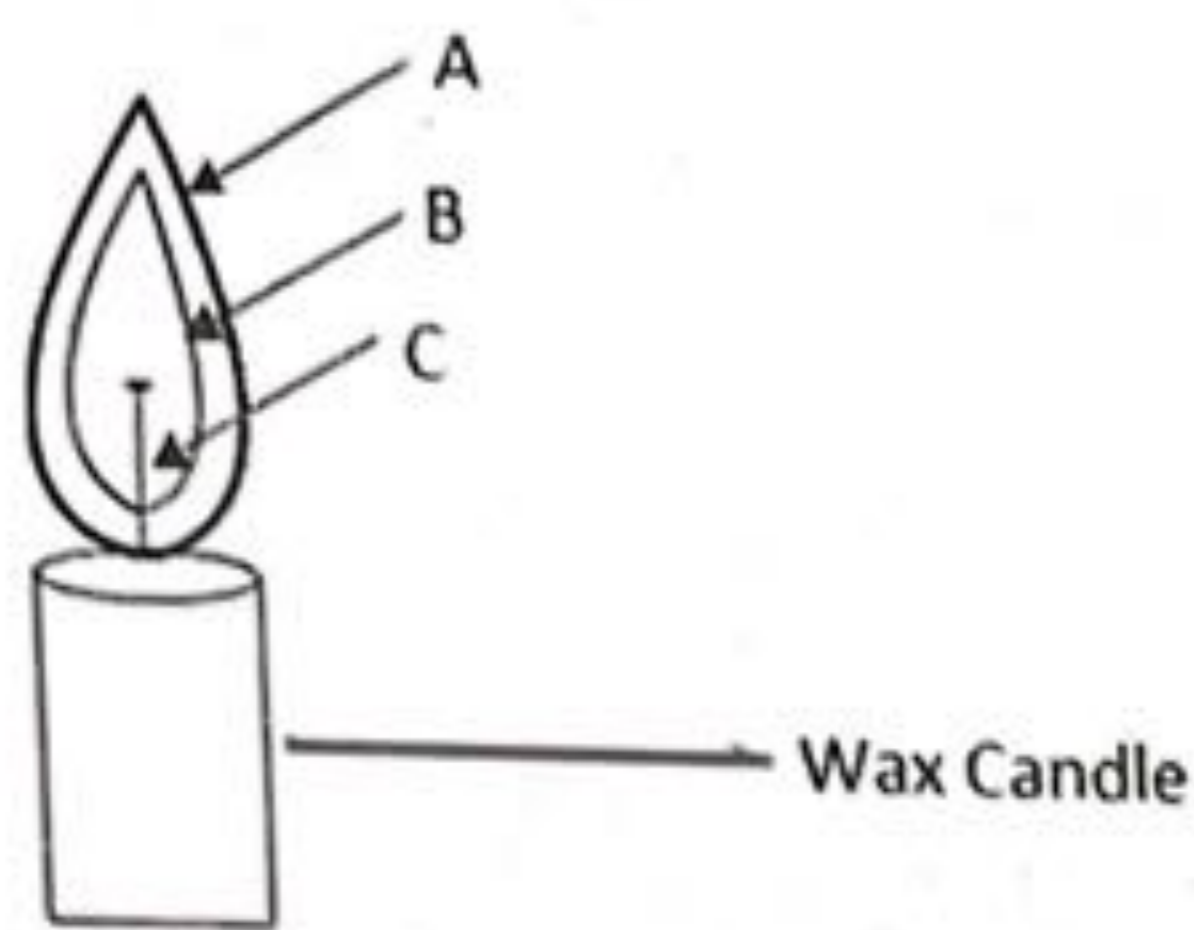
- a) Identify the product & process
  - b) Write 2 uses of kerosene
  - c) How CNG is a good fuel than petrol & diesel?
38. a) Complete the Nitrogen cycle –



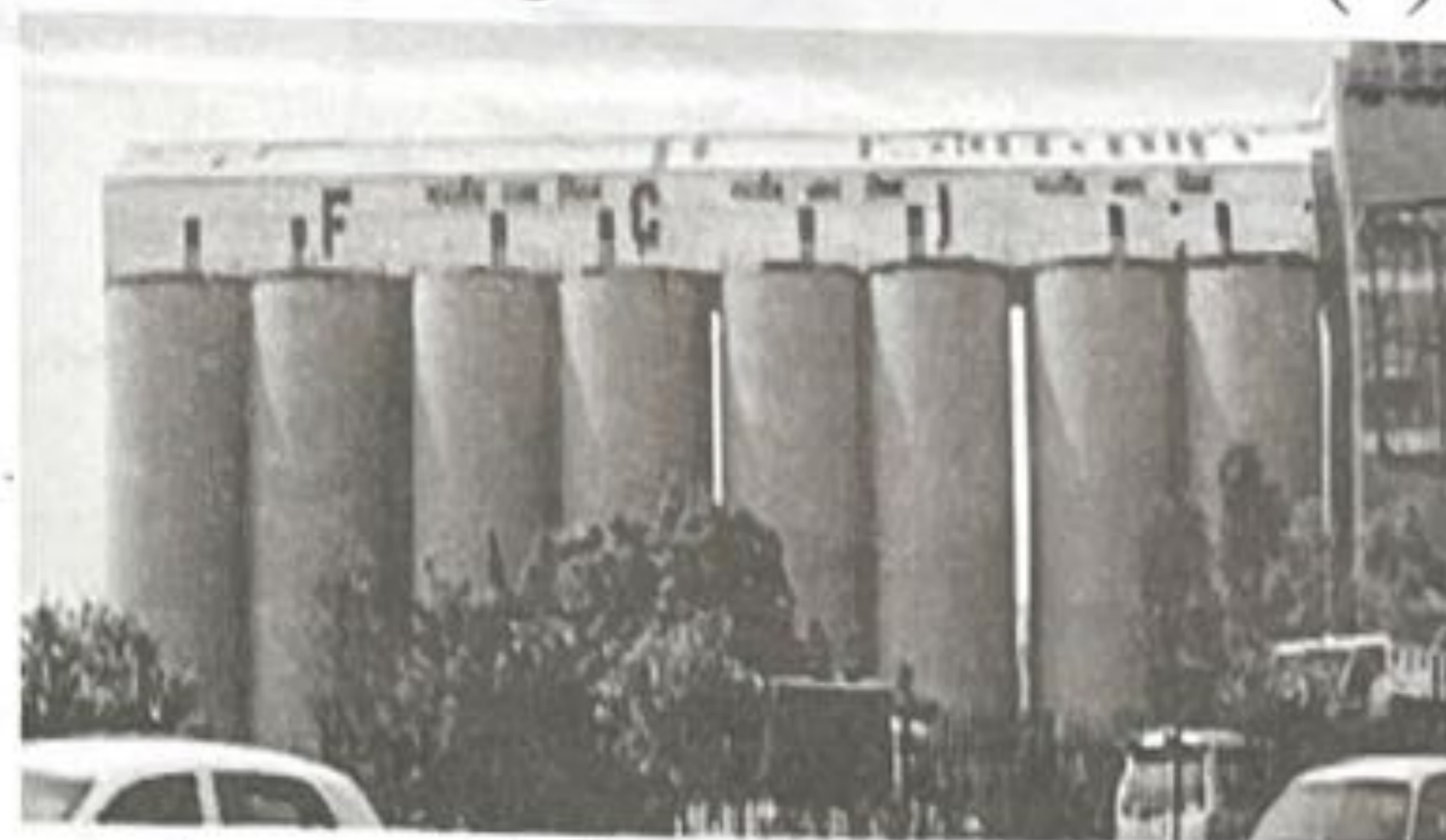
- b) Why is it essential constituent for all living organisms?
39. Draw the diagram of Hoe and mention as how it is used in farming?

SECTION-D(15MARKS)

40. (a) Define Pressure. (1)  
(b) Two women are of same weight. One wears sandals with pointed heels while the other wears sandals with flat soles. Which walking on a sandy beach? Give reason for your answer. (2) *Which one feel more comfortable while walking*  
(c) It is much easier to burst an inflated balloon with a needle than by a finger. Explain. (2)
41. (a) Why isn't hydrogen gas used as a domestic or industrial fuel, although it has a very high calorific value? State two reasons for the answer.  
(b) Observe the diagram & answer the questions given below.



- (c) Label the parts A, B & C.  
(d) Which zone is the non-luminous zone of the candle flame?  
(e) Which zone has the lowest temperature?
42. a) If wheat is sown in the kharif season, what would happen? (1)  
b) Identify the given pictures and write the usage of each of them (2).



*chakanies*

*silo*

- c) Mention two precautions while sowing seeds in a field (1)  
d) Identify and name the methods of irrigation-(1)

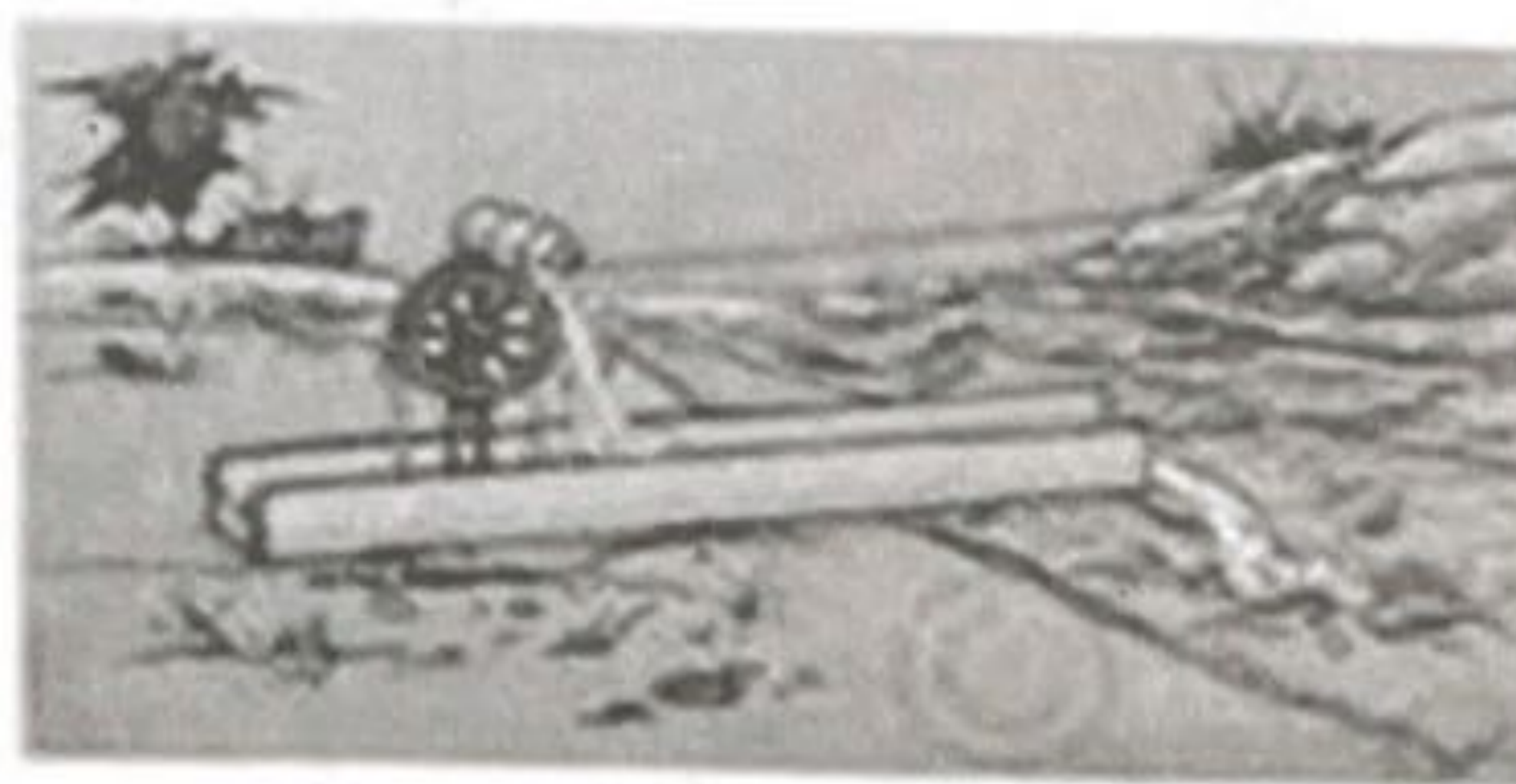


Figure A

Figure B

*saqi + Dheki + moat*

*chain pump*