

GURU GOBIND SINGH PUBLIC SCHOOL

SECTOR :V/B BOKARO STEEL CITY

STD:8

SCIENCE ASSIGNMENT

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Subject :PHYSICS

1. *Define : Force , Pressure ,Spring Balance ,Noise , Pitch , Sound , Lubricants , Atmosphere, Magnetic force , Rubber sucker ,Larynx.*
2. *Fill in the blanks ;*
 - *Sounds are produced by _____ objects.*
 - *The S.I unit of pressure depends on the _____.*
 - *Friction depends on the _____ of surfaces.*
 - *Loudness of sound depends on _____.*
 - *Sliding friction is _____ the static friction.*
 - *A force arises due to _____ between two objects.*
 - *The pressure exerted by a liquid _____ with depth.*
 - *Force has magnitude as well as _____.*
 - *To draw water from a well , we have to _____ at the rope.*
 - *Speed of sound is highest in _____ medium.*
 - *Force acting on a unit area is called _____.*
 - *The human voice box contains two ligaments known as _____.*
3. *Write True or False:*
 - *Fluids exert pressure .*
 - *Sound is a form of energy which makes us to hear.*
 - *Noise pollution may cause partial hearing impairment.*
 - *The lower the frequency of vibration ,the higher the pitch .*
 - *Water and air are the most common example of fluids.*
 - *The outer part of the ear is called ear canal.*
 - *A repeated 'back and forth motion' is called vibration.*
 - *Force has a magnitude as well as direction.*
 - *Ball bearing is a device which consists of a ring of metal balls.*
 - *The loudness depends on the amplitude of vibrations.*
4. *Numericals :*
 - *A force of 100 N is applied to an objects of area $2m^2$.Calculate the pressure.*
 - *What force acting on an area of $0.5 m^2$ will produce a pressure of 500 pa?*
 - *A pressure of 10 kpa acts on area of $0.3 m^2$.The force acting on the area will be?*
 - *Calculate the pressure when a force of 200 n is exerted on an area of $10 m^2$.*
 - *A pendulum makes 15 ocillations in 5 seconds .What is the frequency of the pendulum.*
5. *Give reasons:*
 - *Tyres of cars wear out gradually.*
 - *Sports use shoes with spikes.*
 - *Climbing a greasy pole is very difficult.*
 - *Woman voices is higher than that of a man.*
 - *Sound cannot travel through vaccum.*

- *We should not put pen or pencil in our ears.*
- *Sound cannot be heard on the moon .*
- *School bags have wide straps.*
- *The tractors have broad tyres.*
- *Tip of needle is sharp.*

- Why are the voices of man, woman and children are different?*
- Explain why the flash of lightning is first and sound of thunder is heard a little later?*
- What are the usual causes of the partial hearing loss suffered by a person?*
- Why it is difficult to light a matchstick by striking it on a smooth surface?*
- What is meant by atmospheric pressure? What is the cause of atmospheric pressure?*
- Explain why, objects moving in a fluids should have streamlined shape?*
- What is meant by lubricants? Why is it important?*
- What do you mean by noise? Give two causes of noise pollution from the homes.*
- Name the medium that sound needs for transmission.*
- Write two advantages and disadvantages of friction.*
- What is ultrasound? State two uses of ultrasound.*
- What is the difference between static and sliding friction?*
- Explain why, the walls of a dam are thicker near the bottom than at the top?*
- Write the methods of reducing fluids friction.*
- Draw a labelled diagram of:*

- *Human Ear*
- *Larynx*
- *Streamlined shape objects*
- *Types of musical instruments*
- *Rubber sucker*

Chemistry

1) Define the following terms:

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|---------------|------------------|-----------------|----------------------------|
| a) metalloids | b) coal | c) Petroleum | d) Biodegradable |
| e) substances | f) Petrochemical | g) Fossil fuels | h) fractional distillation |
| i) polymer | j) refining | k) Malleability | |

2) Differentiate between:

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|---|---|
| 1) natural and synthetic fibres | 2) exhaustible and inexhaustible resources |
| 3) Metals and Non-metals | 4) Biodegradable and non-biodegradable substances |
| 5) Thermosetting plastics and thermoplastic | 6) Coal and petroleum |
| 7) sulphur and copper | 8) LPG and CNG |

3) Give two example of each:

- | | | | |
|---------------------|---------------|---------------|---------------------------|
| a) metals | 2) Non-metals | 3) metalloids | 4) natural fibres |
| 5) synthetic fibres | 6) elements | 7) Compounds | 8) Fractions of petroleum |

- 9) Thermosetting plastics 10) thermoplastics 11) Products of coal
12) Petrochemicals 13) natural gas 14) re-newalbe resources
15) Non-renewable resources
- 4) Draw a neat and well labelled diagram of
a) Petroleum and natural gas deposits under the surface of earth.
b) Arrangement of polymer chains in thermoplastics and thermosetting plastics.
- 5) Fill in the blanks:
a) The element which is stored in kerosene is
- b) The manmade fibre made from the cellulose polymer is
- c)is not a fossil fuel.
- d) The synthetic fibre which contains the organic group similar to those which give fruits their "sweet smell" is
- e) Nitrogen formsoxide
- f) Iron is morethan copper
- g) The non-stick coating on frying panes is made up of
- h) The slow process of conversion of dead vegetation into coal is called
- i) Coal contains mainly.....
- j) Synthetic fibres are made from raw materials called
- 6) Answer the following questions:
a) Write advantages of using natural gas.
b) What happens when?
i) sulphur dioxide is dissolved in water
ii) magnesium reacts with air
- 7) What is the major component of LPG?
- 8) Name the man-made fibre made from the cellulose polymer.
- 9) Which gas occurs above the petroleum oil trapped under the rocks?
- 10) Define reactivity series.
- 11) Which metal does not produce hydrogen gas on reacting with dilute H_2SO_4 ?
- 12) What is rayon? Write these of rayon.
- 13) Write useful properties of plastics.
- 14) How can we save the environment from plastic wastes?
- 15) Write two uses of metals.
- 16) Why is LPG called a good fuel?
- 17) How can we save petrol and diesel?
- 18) Write full form of CNG, LPG, PCRA, PET

19) Define nylon. Write two uses of nylon.

Biology

1. Define the following:

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|------------------|--------------------|
| a. winnowing | b. Antibiotics |
| c. Irrigation | d. Vaccination |
| e. Fermentation | f. Endemic Species |
| g. Reforestation | h. Nitrogen cycle |
| i. Cytoplasm | j. Genes |

2. Fill in the blanks:

- The bacterial cells are tomicrometres in length.
- Satpura National Park is a part ofBiosphere Reserve.
- Alcohol is produced with the help of
- Thecontrols the movement of materials in and out of the cell.
- The smallest cell is
- Vaccine for small pox was discovered by
- For growing a crop, sufficient sunlights,andfrom the soil is essential.
-organelle is not found in animal cell.
- Red Data Book contains a second ofspecies.
- The microorganism which can reproduce and multiply only inside the cells of the other organism are.

3. Give example for the following:

- | | |
|-------------------------|-----------------------------------|
| a. Rabi crop | b. extent species |
| c. chemical fertilizers | d. modern method of irrigation |
| e. unicellular organism | f. wild life sanctuaries of India |
| g. prokaryotic cell | h. migrating birds |
| i. antibiotics | j. tissue |

4. Differentiate between the following terms:

- Biosphere Reserve and Wild life Sanctuary
- plant cell and Animal cell
- manures and fertilizers

- d. prokaryotic cell and eukaryotic cell
- e. viruses and bacteria
- f. Rabi and Kharif crops
- g. Zoo and wild life sanctuary
- h. afforestation and Reforestation

5. Answer the following questions:

- a. What is the process of transplantation in agriculture? Give examples of two crops which is usually grown by this process.
- b. What are antibiotic? What precautions must be taken while taking antibiotic?
- c. define deforestation. Write the causes of deforestation?
- d. What is the role of chlorophyll in photosynthesis?
- e. Mention the beneficial effects of micro organisms.
- f. What are the steps involved in soil preparation?
- g. What is irrigation? Why is it necessary?
- h. What is fertiliser? Name two fertilisers.
- i. What is meant by communicable disease? Name any two communicable disease.
- j. What is the mode of transmission of the following disease?

i. rust of wheat	ii. citrus canker
iii. yellow vein mosaic of bhinde	iv. anthrax
v. aspeigilosis	vi. tuberculosis
vii. Measles	viii. polio
ix. Typhoid	x. Dengue
- k. Define preservation. Write the methods of preservation of food.
- l. Where do Rhizobium bacteria live? What is their functions?
- m. What are the consequence of deforestation?
- n. Name two man-made causes of deforestation and two natural causes of deforestation.
- o. What is meant by the migration of bird? Why do birds migrate?
- p. Explain how, recycling of paper helps in the conservation of forest?
- q. What is protoplasm? Name the four elements which make up a major part of protoplasm?
- r. What is a plastid? Write the names of different plastids present in plant cell.
- s. Write the similarities between plant and animal cell.
- t. What are the functions of the following organs

a) heart	b) Brain	c) Roots	d) Leaves
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6. Draw a neat and well labelled diagram of:

a. plant cell

b. animal cell

c. nitrogen cycle

d. design of biosphere reserve

e. nerve cell

