

CBSE Board  
Class VIII Science  
Term 1  
Sample Paper - 1  
Solution

Time: 3 hrs

Total Marks: 100

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SECTION – A

1. Ans. Correct Option: [C]  
Solution: Silkworm provides us with silk fibre whereas pearl oyster provides us with pearl.
2. Ans. Correct Option: [D]  
Solution: Dry soil requires watering before ploughing. After ploughing, the clumps in the field have to be broken with a plank. Then the field is levelled for sowing as well as for irrigation purposes with the help of a leveller.
3. Ans. Correct Option: [D]  
Solution: Antibiotics are not effective against viruses and hence cannot cure diseases caused by virus.
4. Ans. Correct Option: [C]  
Solution: Citrus canker is an air-borne disease of plants whereas measles is an air-borne disease of humans..
5. Ans. Correct Option: [B]  
Solution: The clearing of forests results in loss of shelter for the animals, due to which they have to find new homes. Hence their survival will be affected..
6. Ans. Correct Option: [B]  
Solution: Asiatic lion
7. Ans. Correct Option: [B]  
Solution: Rayon is made from wood-pulp. The wood obtained from plants is made of cellulose.
8. Ans. Correct Option: [B]  
Solution: Thermoplastics get deformed easily on heating and can be bent easily.

9. Ans. Correct Option: [B]  
Solution: Sodium is a metal that is very soft and can be easily cut with a knife.
10. Ans. Correct Option: [C]  
Solution: Iodine is a non-metal which is used as antiseptic for skin treatment.
11. Ans. Correct Option: [A]  
Solution: Metals combine with oxygen to form basic oxides.
12. Ans. Correct Option: [A]  
Solution: Exhaustible natural resources are limited as they take millions of years to form.
13. Ans. Correct Option: [A]  
Solution: When heated in air, coal burns and produces mainly carbon dioxide gas.
14. Ans. Correct Option: [B]  
Solution: The net force is  $10\text{N} - 5\text{N} = 5\text{N}$  (upwards).
15. Ans. Correct Option: [A]  
Solution: Pulling a rope requires muscular force which is a contact force. Forces involved in all other cases may work from a distance.
16. Ans. Correct Option: [A]  
Solution: Tools meant for cutting and piercing always have sharp edges so that they may produce large pressure to cut things easily.
17. Ans. Correct Option: [D]  
Solution: Gym and tennis shoes have rubber soles rather than leather because rubber provides more friction than leather.
18. Ans. Correct Option: [B]  
Solution: The frictional force exerted by a fluid is called drag.
19. Ans. Correct Option: [D]  
Solution: Timbre or quality of sound is a characteristic by virtue of which we can distinguish between two sounds of same pitch and loudness..
20. Ans. Correct Option: [B]  
Solution: Sounds having frequencies lower than 20 Hz are below audible level and hence are called infrasonic sound..

## SECTION-B

**21.Ans.** Trees are cut down in several countries especially the developing ones, where wood is used as firewood or turned into charcoal, used for cooking and heating purposes which leads to deforestation.

**22.Ans.**

Kharif Crops	Rabi Crops
i. The crop which are sown in the rainy season are called kharif crops.	i. The crops grown in the winter season are called rabi crops.
ii. The rainy season in India is generally from June to September.	ii. Their time period is generally from October to March.
iii. Example - Paddy.	iii. Example - Wheat

**23.Ans.** Modern methods of irrigation help us to use water economically, thereby conserving water. In addition, such methods help to save time and labour. Hence, they are more efficient than traditional methods of irrigation.

**24.Ans.** In agriculture, microorganisms help in manure formation and increasing soil fertility.

In medicine, microorganisms are used to prepare antibiotics and vaccines.

**25.Ans.**

Plastics are replacing metals in car industry since:

- (i) Plastics are cheaper than metals
- (ii) Plastics can be easily moulded in various shapes.

**26.Ans.** Yes, we can classify as metals and non-metals based on lustre. Metals have a shiny lustre while non- metals generally do not have a shiny lustre.

**27.Ans.** Carbonisation is the conversion of organic matter to carbon containing product. Coal mainly contains carbon. Therefore, the conversion of dead vegetation into coal is called carbonisation.

28. Ans.

- a. cricket ball hit by a batsman: Push
- b. Planting a pin on the pin board: Push
- c. Plucking the nail off the wall : Pull
- d. Picking up a shopping bag: Pull

29. Ans. Friction is because of irregularities of two surfaces in contact.

In sliding friction, time given for the interlocking the irregularities of the two surfaces is very small that is why sliding friction is very less than static friction.

30. Ans

Objects that produce sound are called sources of sound.

For example: musical instruments, audio players etc.

### SECTION-C

31. Ans

(i) The reasons for cutting trees in forests are:

- a. Procuring land for cultivation
- b. Building houses and factories
- c. Making furniture or using wood as fuel

(ii) (Carbon dioxide traps the heat rays reflected by the earth and causes global warming by increasing the temperature on the earth.

32. Ans.

(i) The perpendicular pipes, having rotating nozzles on top, are joined to the main pipeline at regular intervals. When water is allowed to flow through the main pipe under pressure with the help of a pump, it escapes from the rotating nozzles. It gets sprinkled on the crop as if it is raining.

(ii) When too much water is given to the soil, it becomes wet. Water accumulates around the plant. This is called water-logging.

33. Ans.

- i. The farmer needs to carry out the following steps in order to ensure safe storage of food grains:
  - a. The fresh crop should be properly dried in the sun to reduce the moisture in them so as to prevent the attack by insect pests, bacteria and fungi.
  - b. The grains should be stored in jute bags or metallic bins to protect them from pests.
  - c. Specific chemical treatments are required for storing large quantities of grains in big godowns to protect them from pests and microorganisms.
- ii. Lowering of temperature slows down the growth of bacteria, yeast and moulds, and inhibits the action of enzymes present in the food material.

34. Ans.

(i)

- a. Salt is added to pickles to prevent the attack of microbes.
- b. Vinegar prevents spoilage of pickles because bacteria cannot live in such an environment.
- c. Use of oil prevents the spoilage of pickles by not permitting bacteria to grow in this environment.

(ii) Sodium benzoate and sodium metabisulphite.

35. Ans.

A material which gets decomposed through natural processes (such as the action of bacteria) is called biodegradable material.

Examples: Peels of vegetables and fruits, wood.

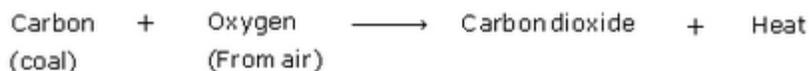
A material which is not easily decomposed by natural processes (such as action of bacteria) is called non-biodegradable material.

Examples: Plastics, glass.

36. Ans.

- (a) Coal is a hard, black combustible mineral that consists mainly of carbon.
- (b) Coal is a source of energy:

Coal is mainly carbon. When heated in air, coal burns and produces mainly carbon dioxide gas. A lot of heat energy is also produced during the burning of coal. This can be written as:



Coal is important because it can be used as a source of heat energy as such (just by burning it), or it can be converted into other forms of energy such as coal gas, coke or electricity.

- (c) The real source of energy of coal is the solar energy (or sun's energy). This is because the plants and trees which decomposed to form coal grew on the earth by absorbing sunlight energy during the process of photosynthesis.

37. Ans.

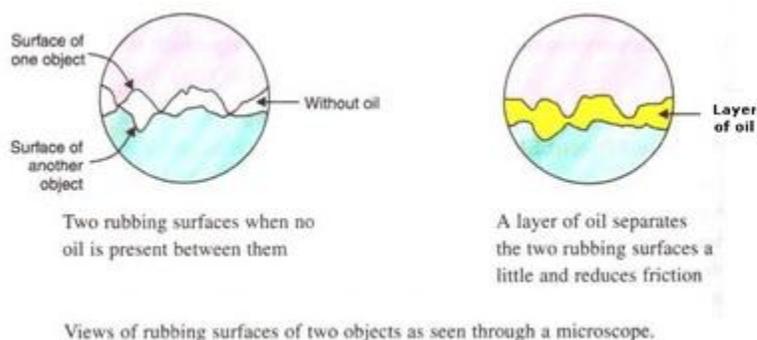
- (i) **Balanced Forces:** When the resultant of all the forces acting on a body is zero, the forces are said to be balanced forces.

**Unbalanced Forces:** When the resultant of all the forces acting on a body is not zero, the forces are unbalanced forces.

- (ii) The materials that break easily when force is applied on them are considered as brittle. Examples of brittle materials are ceramic and glass. Objects made up of plastic and wood are non-brittle in nature.

38. Ans.

- (i) When oil is applied between the two surfaces in contact, a thin layer of oil is formed between the two surfaces. This layer separates the two surfaces a little bit due to which their interlocking is reduced to a large extent when they rub against each other.



- (ii) Grease and oil are two commonly used lubricants.

39. Ans.

- (i)
- (a) **Amplitude:** The maximum displacement from the mean position during an oscillation is called the amplitude of the oscillation.
  - (b) **Time period:** The time taken to complete one oscillation is called the time period of the oscillation.
  - (c) **Frequency:** The number of oscillations per second is called the frequency of oscillation.

- (ii) False. Sound can travel through solids, liquids and gases.

**40. Ans.**

LPG stands for Liquefied petroleum gas. LPG is a good fuel because of its following advantages:

- (i) LPG burns easily.
- (ii) LPG has a high calorific value. Due to this, a given amount of LPG produces a lot of heat.
- (iii) LPG burns with a smokeless flame and hence does not cause air pollution.
- (iv) LPG does not produce any poisonous gases on burning.
- (v) LPG does not leave behind any solid residue on burning.

### SECTION-D

**41. Ans.**

The process of scattering seeds in the ground soil for growing the crop plants is called sowing.

The sowing of seeds with a seed drill has the following advantages:

- (i) By using a seed drill for sowing, the seeds are sown at correct depth and correct intervals (or spacings).
- (ii) The seeds sown with a seed drill are in regular rows.
- (iii) When the seeds are sown in furrows by a seed drill, the seeds get covered by soil and hence these seeds cannot be picked up and eaten by birds. This prevents damage caused by birds.
- (iv) Sowing by using a tractor-driven seed drill saves time and labour.

**42. Ans.**

Some of the beneficial effects of micro-organisms are as follows:

- (i) Micro-organisms are utilized in the making of curd, bread and cake.
- (ii) Micro-organisms are used in the production of alcohol, wine and acetic acid (vinegar).
- (iii) Micro-organisms are used in the preparation of medicines (or drugs) called antibiotics.
- (iv) Micro-organisms are used in agriculture to increase the fertility of soil by fixing atmospheric nitrogen gas.
- (v) Micro-organisms clean up the environment by decomposing the organic matter of dead plants, dead animals and animal wastes into harmless and useful simple substances.

**43. Ans.**

- a. (i) Terylene: B (ii) Rayon: C (iii) Nylon: A
- b. C (Rayon)
- c. B (Terylene)

**44. Ans.**

- i. When we rub a plastic object like a pen or a comb with hair, it gets electrically charged. When such an object is brought close to tiny bits of paper, the bits of paper get attracted to the object. This is due to electrostatic force.
- ii. Skis have a large surface area to reduce the pressure on snow. This ensures that the skis do not sink in too far in the snow.