

SECTION – A

I. Choose the correct option for the following:

(1X10 = 10M)

1. The force of gravity _____ when the body starts moving away from the center of the earth

- (a) decreases
- (b) increases
- (c) increases and then decreases
- (d) decreases and then increases

ANS: a) decreases

2. Natural gas stored under high pressure is known as _____.

- (a) Gobar gas
- (b) CNG
- (c) Biogas
- (d) Coal gas

ANS: b) CNG

3. What is the weight of an object of mass 48kg?

- (a) 4.8N
- (b) 480 kg
- (c) 0.48 N
- (d) 480 N

ANS: d) 480 N

4. The volume of 600g of a substance is 1200cm³. If the density of water is 1g/cm³. Will the substance float or sink when dipped in water?

- (a) The substance will float.
- (b) The substance will partially immersed.
- (c) The substance will completely immersed.
- (d) Nothing will happen to the substance.

ANS: a) The substance will float.

5. Budding is shown by _____.

- (a) Hydra; Yeast
- (c) Hydra; Spirogyra
- (b) Yeast ; Amoeba
- (d) Amoeba ; Spirogyra

ANS: a) Hydra; Yeast

6. Anthracite is a _____.

- (a) Renewable resource
- (b) Non-renewable resource
- (c) Inexhaustible resource
- (d) None of the above

ANS: b) Non-renewable resource

7. Coke is formed by heating coal to a _____.

- (a) high temperature in the absence of air.
- (b) high temperature in the presence of air.
- (c) low temperature in the absence of air.
- (d) low temperature in the presence of air.

ANS: a) High temperature in the absence of air.

8. Propagation through spores is an example of _____.

- (a) Sexual reproduction
- (b) Fission
- (c) Asexual reproduction
- (d) Fragmentation

ANS: c) Asexual reproduction

9. Choose the correct statement related to reproduction.

- (i) It is a process where individuals make more of their own kind.
 - (ii) It is a process to get rid of waste materials.
 - (iii) The process of reproduction requires a parent cell.
 - (iv) It is a process related to exchange of gases.
- (a) (i) and (ii)
 - (b) (ii) and (iii)
 - (c) (iii) and (iv)
 - (d) (i) and (iii)

ANS: d) (i), (iii)

10. The chemical name of liquified petroleum gas is

- (a) Methane
- (b) Ethane.
- (c) Pentane.
- (d) Butane.

ANS: d) Butane

II.Do as directed:

11. Correct the following statement:

Petroleum is formed under the sea from the dead remains of plants and sea weeds.

ANS: Petroleum is formed under the sea from the dead remains of sea animals.

12. Draw a labelled diagram to show the luminous and dark zone of the candle flame.

ANS: <https://archive-vivek.web.app/files/ref/fuels-energy-candle1.png>

13. Give the scientific terms for the following:

a) The lowest temperature at which combustible substances catch fire.

ANS: Ignition temperature

b) The upward force exerted by a fluid on a partially or fully immersed object.

ANS: Buoyant force

14. What is regeneration? Give one example.

ANS: Regeneration is the process by which organisms regrow cut/broken parts of their bodies.

15. State Archimedes Principle.

ANS: The Archimedes Principle states that when a body is partially or wholly immersed in a liquid, it experiences a buoyant force which is equal to the weight of the liquid displaced by it.

III.Answer in brief:

16. A metallic box has a length of 20cm, breadth of 10 cm, and height 5cm. Its mass is 2.7kg. Find the density of the metallic box in g/cm³.
ANS: 2.7g/cm³

17. Differentiate between spontaneous combustion and explosion.

ANS: Spontaneous combustion when a substance catches fire without any external source of heat. Explosive combustion is when a substance catches fire and there is huge amounts of sound, light, and heat given out. (provide examples)

18. A stone weighs 500g in air and displaces water when dipped into it as shown in the figure below.

(a) What is the volume of the water displaced?

(b) Find out the density of the stone in water.

(Density of water is 1g/cm^3)

19. 'Sun is the major source of energy chain'. Justify.

20. With the help of diagram, explain the asexual reproduction in Amoeba.

21. (a) Biogas is a better fuel. Give reason in support of your answer. (2points)

(b) Arrange the liquids in decreasing order of their boiling points.

Naphthalene, fuel oil, kerosene, petrol

IV. Read the passage carefully and answer the following:

The fossil fuel is a hydrocarbon containing material, formed from the anaerobic decomposition of underground remains of dead plants and animals. To get energy from fossil fuel human extract and burn that. The main fossil fuels are coal, petroleum and natural gas. These can be easily extracted through mining and drilling. Burning of fossil fuel provide heat energy which can be used for cooking, transportation, to power engines and to generate electricity. Fossil fuels can be transformed into other chemicals as agricultural chemicals, pesticides, and fertilizers. Fossil fuels cause serious environmental damage and negative consequences in their extraction, transportation and consumption of the

fuels. The burning of fossil fuel produces carbon-di-oxide. Carbon-di-oxide is a green house gas which causes global warming, acid rain, ocean acidification and climate change. Climate change causes the extinction of species, reducing people's ability to produce food and the adverse effect on both ecosystem and people. WHO stated that climate change is the greatest threat to human health in 21st century.

(a) How are fossil fuels formed?

(b) What are the negative consequences of burning fossil fuel?

(c) Suggest any two preventive measures to reduce the usage of fossil fuel.
