

Time: 3 hrs

Total Marks: 100

SECTION A

Attempt all questions from this Section

1. The vessels which carry carbon dioxide rich blood from all the parts of the body back to the heart are called [1]
 - (a) Veins
 - (b) Arteries
 - (c) Capillaries
 - (d) Valves
2. Which among the following is not a juicy fruit? [1]
 - (a) Apple
 - (b) Mango
 - (c) Orange
 - (d) Walnut
3. Which gas is produced when sludge is digested? [1]
 - (a) Methane
 - (b) Ethane
 - (c) Propane
 - (d) Butane
4. What do we call the network of several food chains connecting each other? [1]
 - (a) Food web
 - (b) Food chain
 - (c) Food cycle
 - (d) Trophic level
5. The mechanism that cools the plants is called [1]
 - (a) Excretion
 - (b) Transportation
 - (c) Transpiration
 - (d) Translocation
6. In Gujarat, construction of 18 check dams is being planned by an N.G.O. and the villagers on which of the following rivers? [1]
 - (a) Saraswati River
 - (b) Ganga River
 - (c) Yamuna River
 - (d) Rukmavati River

CBSE Sample Paper Class 7 Science Set 3

7. Neutralisation of calcium hydroxide with hydrochloric acid is an example of [1]
 - (a) Chemical change
 - (b) Physical change
 - (c) Both chemical and physical change
 - (d) No change
8. Breaking of ozone to form oxygen is an example of which change? [1]
 - (a) Chemical change
 - (b) Physical change
 - (c) Crystallisation
 - (d) Both chemical and physical change
9. Which of the following cannot be called a physical change? [1]
 - (a) Grating cheese
 - (b) Fermenting of cheese
 - (c) Melting cheese
 - (d) Mixing two cheeses in a bowl
10. Stainless steel is an alloy of iron with [1]
 - (a) Zinc
 - (b) Aluminium
 - (c) Chromium and nickel
 - (d) Chromium and copper
11. Surgical instruments do not rust at all since they are made of [1]
 - (a) Iron mixed with Zinc
 - (b) Iron mixed with lead
 - (c) Iron mixed with copper
 - (d) Iron mixed with nickel
12. The iron pipes used in homes to carry water are coated with [1]
 - (a) Zinc
 - (b) Aluminium
 - (c) Copper
 - (d) Antimony
13. Which of the following is NOT a physical change? [1]
 - (a) Tearing postcard
 - (b) Making curd
 - (c) Melting wax
 - (d) Mixing oil in water
14. The shown symbol for the battery has how many cells? [1]
 - (a) 1
 - (b) 2
 - (c) 3
 - (d) 4
15. The coil of wire in an electric heater used for cooking is called a/an_____. [1]
 - (a) Filament
 - (b) Element
 - (c) High tension wire
 - (d) Electric wire

CBSE Sample Paper Class 7 Science Set 3

16. When the direction of current flowing through a coil is reversed, the direction of deflection in the needle compass kept near it _____. [1]
- (a) remains unaffected
 - (b) gets reversed
 - (c) points north-south
 - (d) points east-west
17. Which of the following statements is true about a plane mirror? [1]
- i. The image is larger in size than the object.
 - ii. The image is formed at the same distance as object.
 - iii. The image is laterally inverted.
 - iv. The image is virtual and erect.
- (a) 1, 2, 3
 - (b) 2, 3, 4
 - (c) 1, 3, 4
 - (d) 1, 2, 3, 4
18. The phenomenon of bouncing back of light falling on a smooth polished surface is known as _____. [1]
- (a) Refraction
 - (b) Absorption
 - (c) Polarization
 - (d) Reflection
19. Which of the following mirrors is used in automobiles as rear view mirror? [1]
- (a) Concave mirror
 - (b) Convex mirror
 - (c) Plane mirror
 - (d) Both a and b
20. Formation of spectrum by a glass prism takes place because [1]
- (a) light of different colors has different intensities.
 - (b) light of different colors has different frequencies.
 - (c) light of different colors refracts with different angles of refraction.
 - (d) light of different colors has different energies.

SECTION B

21. Why is sewage said to be of a complex mixture? [2]
22. What is the importance of the parts labeled 'A' and 'B' in the below figure? [2]
23. Why forests are called green lungs? [2]
24. What do you understand by water table? Name the factors that affect the water table. [2]
25. What is photosynthesis? Why is it considered a chemical change? [2]
26. Explain how galvanization of an iron object prevents it from rusting? [2]
27. The same substance can undergo a physical change or a chemical change depending upon the conditions. Explain with an example. [2]
28. Draw a circuit diagram for the following electric circuit: [2]

CBSE Sample Paper Class 7 Science Set 3

29. Identify the lenses shown in the given figures. [2]

30. Give two advantages of CFLs. [2]

SECTION C

31. [4]

(a)

- i. What do you understand by seed dispersal?
- ii. What happens to the seeds when fruits burst with sudden jerks?

(b) Name the following:

- i. Two hard fruits.
- ii. The protective structure enclosing the embryo.

(c) How does kidney failure occur? What can be done to help the survival of such people?

[4]

(d) [4]

(a) Why do plants need water? What will happen if water is not available for plants?

(b) What is shown in the figure below?

(e) [4]

(a) Why it is essential that food must be made available to every cell of the plant?

(b) Write the function of:

- i. Xylem
- ii. Phloem

(f) Classify the following examples into physical and chemical changes. [4]

(a) Log of wood burns to form ash.

(b) Steam condenses to form water.

(c) A bicycle chain rusts.

(d) Water is absorbed by a paper towel.

(e) A piece of a mango rots on the ground.

(f) Dissolving sugar in water.

(g) Eggs turn into omelet.

(h) Stretching metals to form wires.

(g) Explain the following with reasons: [4]

(a) Formation of clouds is a physical change.

(b) Melting of butter to make ghee is a chemical change.

(h) Explain any four methods of preventing rusting of iron. [4]

(i) [4]

(a) How can we make a battery from two or more cells?

(b) Give two applications of heating effect of electric current.

(j) [4]

(a) If an object is placed at a distance of 10 cm in front of a plane mirror, how far would it be from its image?

(b) Why do different colours of light refract at different angles in the formation of a spectrum?

(k) [4]

(a) What is the function of needle in a magnetic compass?

(b) Some electrical appliances have elements in them. How do you notice that they

CBSE Sample Paper Class 7 Science Set 3

have become hot?

SECTION D

41.

- (a) Label the parts shown as A-F in the below schematic diagram of circulation. [5]
- (b) What is the function of the red pigment of blood? Where is this pigment present in blood?

42.

- (a) Name the following: [5]
 - a. Parts of a stamen.
 - b. The process in which the pollen of a flower lands on the stigma of another plant
 - (c) (of the same kind) situated far away.
 - (d) The process of fusion of male and female gametes to form zygote.
 - (b) How the germination of seed takes place?
43. When an ant stings a person, the solution of substance K is rubbed on the stung area of the skin to get relief from pain. The substance K is also used in kitchen for cooking purposes. Another substance L is sour in taste and contains an organic acid M. It is pungent smelling and is used as a preservative in foods. When a solution of K is mixed with L, then a change N takes place to produce bubbles of gas O. [5]
- (a) Identify K.
 - (b) What is substance L?
 - (c) Name the acid M.
 - (d) What type of change is N?
 - (e) Name the gas O.
44. Give reasons for the following. [5]
- (a) Which mirrors are used as side mirrors in scooters? Give reason.
 - (b) Mention any three uses of concave mirrors.