

General instructions-

All questions are compulsory-

Section A (MCO) one mark questions

1. Weeds are the:
 - a) main crop plants
 - b) insects and pests
 - c) unwanted plants growing along the crop
 - d) chemical substances

2. Yeast is used in the production of
 - a) sugar
 - b) alcohol
 - c) hydrochloric acid
 - d) oxygen

3. The plastics which do not remould again on heating are called:
 - a) thermosetting plastics
 - b) thermoplast plastics
 - c) both of these
 - d) none of these.

4. Which of the following can be beaten into thin sheets?
 - a) Zinc
 - b) Phosphorus
 - c) Sulphur
 - d) Oxygen

5. 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

6. There are following zones of a flame

- a. Two
- b. Three
- c. Four
- d. No any zone

7. Cutting of trees on large scale is called

- a. Deforestation
- b. Reforestation
- c. Afforestation
- d. None of these

8. Chloroplast is found in

- a) Plant cell only
- b) Animal cell only
- c) Both of these
- d) None of these

9. What is force?

- a. pull
- b. push
- c. push and pull both
- d. none of these

10. Complete the sentence. Friction always _____

- a. helps the motion
- b. opposes the motion
- c. both of these
- d. none of these

Section B (One mark questions)

Fill in the blanks in the following statements

11. Cholera is caused by _____.

12. Synthetic fibres are synthesised from raw material called _____

13. Iron is _____ reactive than copper.
14. A charged body _____ an uncharged body towards it.
15. Force per unit area is called _____
16. Name the petroleum product used for surfacing of roads.
17. Name the unit in which the calorific value of a fuel is expressed
18. What is Red Data Book?
19. Why is it difficult to drive on a wet road?
20. Why does a sharp knife cut objects more effectively than a blunt knife?

Section C (Two marks questions)

21. Give two examples of each (a) Kharif crop (b) Rabi crop
22. Explain how fertilisers are different from manure.
23. Explain why fossil fuels are exhaustible natural resources.
24. Make a labelled diagram of candle flame.
25. Differentiate between the following:
 - (a) Wild life Sanctuary and Biosphere reserve [2 marks]
 - (b) Flora and Fauna [2 marks]
26. Draw a sketch of a (a) human nerve cell (b) plant cell [2,2]
27. Explain why Sportsmen use shoes with spikes.
28. A rocket has been fired upward to launch a satellite in its orbit. Name the two forces acting on the rocket immediately after leaving the launching pad.

Section D(Three marks questions)

29. Avoid plastics as far as possible'. Comment on this advice.
30. State the difference between eukaryotes and prokaryotes.
31. Can coal , petroleum and natural gas be prepared in laboratory from dead organisms? Explain in brief.
32. In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel.
33. Write the three applications of force.

Section E(Five marks questions)

34. Write a short paragraph on the harmful effects of microorganisms.
35. What is irrigation? Describe two methods of irrigation which conserve water.
36. How are metals different from non-metals on the basis of their physical properties?
37. Is deforestation associated with global warming? Explain.
38. Discuss the benefits and harms of friction.

Section A (MCQ) one mark questions		
Q.No.	Expected answer	Value point(s)
1	c- unwanted plants growing along the crop	1
2	b- alcohol	1
3	a- thermosetting plastics	1
4	a Zinc	1
5	b Petroleum Conservation Research Association	1
6	b-Three	1
7	a- Deforestation	1
8	Plant cell only	1
9	c- push and push both	1
10	b- opposes the motion	1
Section B (One mark questions)		
11.	Bacteria	1
12.	Petrochemicals	1
13.	More	1
14.	attract	1
15	Pressure	1
16.	Coaltar	1
17	joule	1
18	A document having details of rare and endangered species of animals, plants....	1
19	Less friction	1
20	Pressure is inversely proportional to area. Sharp knife has a small area of contact than the blunt knife. Thus, a force will exert more pressure while using a sharp knife.	1
Section C (Two marks questions)		
21	KHARIF crops Paddy, Maize, RABI crops are----> Wheat, Gram, Pea	2
22	Manures are organic substances while fertilisers are chemical substances. (ii) Manures are prepared in fields while fertilisers are prepared in factories.	2
23	Fossil fuels require millions of years to form from the dead vegetation and animal that get buried deep inside the earth.	2
24	Refer NCERT Page no.72	2
25	Wildlife sanctuary is the place where wild animals are protected in their natural habitat. ... Biosphere reserves are the area used to conserve biodiversity like plants, animals and microorganisms.	2
26.	Refer NCERT Page no.92 ,96	2

27	To increase the force of friction between the ground and the shoe.	2
28	force of gravity, force of friction	2
Section D(Three marks questions)		
29.	Own views	3
30.	Eukaryotic cells contain membrane-bound organelles, such as the nucleus, while prokaryotic cells do not.	3
31.	No, Coal Petroleum and natural gases cannot be prepared in laboratory from dead organism because it take millions of year	3
32	$180,000 \text{ kJ}/4.5 \text{ kg} = 40,000 \text{ kJ/kg}$	3
33	Anythere applications.	3
Section E(Five marks questions)		
34	Diseases in humans like common cold, tuberculosis, measles, chicken pox, polio, cholera, typhoid, hepatitis B, malaria, etc. are caused by microorganisms. Some serious diseases like anthrax is also caused in animals by the microbes.	5
35	The process of watering the crops is called irrigation. Two methods of irrigation are: (i) Sprinkler system : This system is used on the uneven land where less water is available. ... (ii) Drip irrigation: This system is used to save water as it allows the water to flow drop by drop at the roots of the plants.	5
36	The density of metals is usually high. Metals are malleable and ductile. Metals form an alloy with other metals or non – metals.	5
37	Deforestation is the second leading cause of global warming . Global warming occurs when carbon dioxide (CO ₂) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface.	5
38.	<p>Advantages</p> <ul style="list-style-type: none"> • Friction slows down the motion of moving objects. • Writing on a piece of paper with a pencil or a pen. • We cannot fix nail in the wood or wall if there is no friction. It is friction which holds the nail. <p>Disadvantages</p> <ol style="list-style-type: none"> 1. It produces heat in various parts of machines. In this way some useful energy is wasted as heat energy. 2. Due to friction we have to exert more power in machines. 3. It opposes the motion. 4. Due to friction, noise is also produced in machines. 	5