

BHARTIYA SHIKSHA BOARD
Model Paper – Half Yearly
SCIENCE - Class 7
Session 2025-26

Checked
Dwiga
10/10/25

Time: 3 Hours

Max Marks: 80

Instructions:

- Read the questions carefully.
- Please check that this question paper contains 05 printed pages.
- **10** minutes extra time is allowed to read this question paper. During this time, students will only read the question paper and not write the answers.
- Attempting all the questions is compulsory.
- This question paper contains **31** questions.
- This question paper contains **four** sections.
- **Section-A:** Q.no. **1** to **6** carries **1** marks each, Q.no. **7** carries **4** marks, Q.no. **8, 9** and **10** carries **2** marks each and Q.no. **11** carries **3** marks.
- **Section-B:** Q.no. **12** carries **3** marks, Q.no. **13** to **15** carries **2** marks each, Q.no. **16** carries **3** marks, Q.no. **17** carries **2** marks and Q.no. **18** carries **3** marks.
- **Section-C:** Q.no. **19** carries **5** marks, Q.no. **20** carries **4** marks, Q.no. **21** carries **1** mark, Q.no. **22** and **23** carries **2** marks and Q.no. **24** carries **4** marks.
- **Section-D:** Q.no. **25, 26** and **27** carries **5** marks each, Q.no. **28** carries **2** marks, Q.no. **29** carries **3** marks, Q.no. **30** carries **2** marks and Q.no. **31** carries **4** marks.

Section-A

- Q1. The day when moon does not appear in the sky at all is known as (1)**
A. Full moon day
B. New moon day
C. No moon day
D. Black day
- Q2. The force of 1N is equal to the push by an object on a surface that holds it stationary. The mass of the object must be close to: (1)**
A. 100 g
B. 200 g
C. 400 g
D. 500 g
- Q3. The energy required for photosynthesis comes from: (1)**
A. Water
B. Soil
C. Sunlight
D. Carbon dioxide.

- Q4. Which is the longest part of the digestive system in humans? (1)**
A. Oesophagus
B. Large intestine
C. Bile duct
D. Small intestine

- Q5. Which of the following is a triatomic molecule? (1)**
A. Nitrogen
B. Ozone
C. Hydrogen
D. Oxygen

- Q6. What is the scientific name of Nausadar? (1)**
A. Silicon dioxide
B. Sodium bicarbonate
C. Ammonium chloride
D. Sodium chloride

- Q7. Match the column: (1*4=4)**

Column I	Column II
A. Melting of ice	i. Lunar eclipse
B. Bolus	ii. Oscillatory motion
C. Shadow of Earth on moon	iii. Saliva mixed food
D. Swing in savaan	iv. Physical change

- Q8. A. Define Buoyant Force. (1+1)**

B. Choose the correct option

A plastic bat is floating in water. The buoyant force by the water on the box is:

- (i) Less than the weight of bat
- (ii) More than the weight of bat
- (iii) Equal to the weight of the bat
- (iv) Upwards

- Q9. A student claims that a molecule of oxygen (O_2) and a molecule of water (H_2O) are the same because both are made up of atoms. Do you agree or disagree? Evaluate this statement and explain your answer. (2)**

- Q10. Suppose you are blowing air from your mouth to cool a hot object. Are you being pushed behind because of the air coming out of your mouth? Why or why not? (2)**

- Q11. A. Give two possible reasons for tsunami. (2+1)**
B. At a place the difference between high tide and low tide is 60 cm. Can a tidal power plant be set up here? Why or why not?

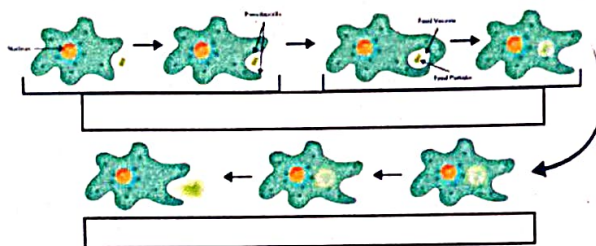
Section-B

- Q12.** A. What is the difference between offshore drilling and onshore drilling? (2+1)
B. Name any one renewable energy source obtained from the oceans.
- Q13.** Define extracellular matrix. (2)
- Q14.** Why is water considered as a compound? (2)
- Q15.** How parenchyma tissue is different from collenchymas tissue in plants. (Any two points) (2)
- Q16.** A. While defining weight of an object on Earth, we consider gravitational pull on it by the earth. Why don't we also include the gravitational pull on it by the moon? (2+1)
B. How can birds fly high in the sky even though they are pull down by Earth?
- Q17.** Why do rockets have different stages? (2)
- Q18.** Give reasons for the following: (1+1+1)
A. Sky look dark on the moon.
B. We always see the same side of the moon.
C. The number of craters visible on the Earth is less than on the moon.

Section-C

- Q19.** State true and false for the following statements: (5)
- A. All the matter that we know is made of atoms having only electrons and protons.
- B. A bone consist of bone cells embedded in the extracellular matrix made up of dense Proteins and has cavities inside having soft, spongy material called femur.
- C. Plants with non-green leaves do not photosynthesize.
- D. Weight of an object on moon is less than that on Earth.
- E. Insectivorous plants have special structures called haustoria that help in obtaining nutrition from the host plant.

Q20. A. Label the diagram given below with the name of processes.



(3+1)

B. Explain the role of saliva in human digestion.

Q21. Choose the correct option.

(1)

Liver secretes bile juice that helps in digestion of

- A. Carbohydrates
- B. Proteins
- C. Fats
- D. Minerals

Q22. Compare evaporation and sublimation. How are they similar, and how are they different in terms of what happens to the substance?

(2)

Q23. A classmate says that all physical changes can be reversed. Do you agree with this? Give two examples to support your answer.

(2)

Q24. A. Define connective tissue. Draw a flowchart to summarise the types of connective tissue.

(3+1)

B. How connective tissues are different from epithelial tissue.

SECTION D

Q25. Fill in the blanks:

(5)

- A. Symbol of carbon is _____ and that of carbon dioxide is _____.
- B. _____ is the site of energy production, and is present in both animals and plants cells.
- C. Mushroom is an example of _____.
- D. The magnitude and direction of the resultant of 20 N upward and 10 N downward forces is _____ N _____.
- E. Plumbline is used for locating _____ direction.

Q26. A. Explain how the force of attraction determines the state of the matter.

(2+2+1)

B. Why are digital and alcohol thermometers preferred over mercury thermometers nowadays?

C. Name the element which is liquid at room temperature.

Q27. A. Neena while moving in a bus from school to her home says, the shops and house are moving. Is she right or not? Explain your answer.

(2+2+1)

B. A small object is making circular motion. Can we say that it is also a rectilinear motion?

C. What makes uniform motion different from non-uniform motion?

Q28. If you are running on a circular track in a park of 100 metres, how long will it take to finish 5 rounds if your speed is 5 m/min? **(2)**

Q29. Write scientific name of the following: **(3)**

A. Baking soda

B. Sand

C. Table salt

Q30. A. Tyres of cars and bicycle burst during summers. Why? **(2)**

B. When we put cold cloth on forehead of a person having fever, then fever goes down. Give reason.

Q31. Answer the following:

A. Explain the process of photosynthesis with the help of a labelled diagram **(2+1+1)**

B. Explain the importance of saprotrophs in our environment.

C. Can non-green leaves do photosynthesis?