

## SUBJECT –SCIENCE

### CBT QUESTION PAPER AND ANSWER FOR APRIL MONTH 2026-27

Q1 The process by which plants prepare their own food is called

- (a) Respiration
- (b) Photosynthesis
- (c) Transpiration
- (d) Germination

Feedback for correct answers

(b) Plants use sunlight, carbon dioxide, and water to make glucose (food) in their leaves using chlorophyll.  $6\text{CO}_2 + 6\text{H}_2\text{O} \xrightarrow{\text{light}} \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$  This is the food-making process.

Feedback for incorrect answers

- (a) Respiration is the process of breaking down food/glucose to release energy. Plants also respire, but this is how they use food, not make it.
- (c) Transpiration is the loss of water vapor from plant leaves through stomata. It helps in cooling and water transport, not food preparation.
- (d) Germination is the process where a seed develops into a new plant. It uses stored food but does not make food. Also, spelling here is "Germinatin" which is likely a typo.

Q2 In an electric circuit, what happens when the switch is in the 'OFF' position?

- (a) The circuit is open, and no current flows
- (b) The circuit is closed, and current flows.
- (c) The bulb lights up
- (d) The battery gets charged

Feedback for correct answers

(a) Switch in 'OFF' breaks the path. An open circuit means a gap, so electrons can't move → current  $I=0$ . Bulb/device won't work

Feedback for incorrect answers

- (b) This happens when switch is 'ON'. Closed = complete path. 'OFF' does the opposite.
- (c) Bulb needs current to glow. If switch is 'OFF', no current → no light. Bulb lights up only when circuit is closed.
- (d) Batteries don't charge just because a circuit is open. Charging needs an external power source and a complete charging circuit.

Q3 Rusting of iron is

- (a) physical change
- (b) chemical change
- (c) both (a) and (b)
- (d) all of these

Feedback for correct answers

(b) Iron reacts with oxygen + water to form rust –  $\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$ . New substance with different properties is formed. It's irreversible.

Feedback for incorrect answers

- (a) Physical change means no new substance, and it's reversible. Rusting makes new substance iron oxide and is irreversible.
- (c) Rusting involves only chemical change. No physical change occurs alongside it.
- (d) Since (a) and (c) are wrong, "all of these" is also wrong.

**Q4 Which metal and non metals liquid at room temperature?**

- a) Iron and sulphur
- b) Mercury and Bromine
- c) Sodium and chlorine
- d) Mercury and carbon

Feedback for correct answers

(b) Mercury = liquid metal at  $\sim 25^{\circ}\text{C}$ . Bromine = liquid non-metal at  $\sim 25^{\circ}\text{C}$ . Only pair that fits.

Feedback for incorrect answers

(a) Iron = solid metal, m.p.  $1538^{\circ}\text{C}$ . Sulphur = solid non-metal at room temp. Neither is liquid.

(c) Sodium = solid metal, m.p.  $98^{\circ}\text{C}$ . Chlorine = gas at room temp, not liquid.

(d) Mercury = liquid metal, correct. But carbon = solid non-metal like graphite/diamond. So only half correct.

**Q5 A runner completes a race in 2 hours and 30 minutes. If the average speed is 12 km/h, what distance did the runner cover?**

- a) 24 km
- b) 30 km
- c) 36 km
- d) 48 km

e) Feedback for correct answers

f) b) To find the distance the runner covered, we can use the formula for speed:

$$\text{Speed} = \text{Distance} / \text{Time}$$

Given that the average speed is 12 km/h and the time taken is 2 hours and 30 minutes, we need to convert the time to hours:

$$\text{Time} = 2 \text{ hours} + (30 \text{ minutes} / 60) \text{ hours}$$

$$\text{Time} = 2.5 \text{ hours}$$

Now we can rearrange the formula to solve for distance:

$$\text{Distance} = \text{Speed} \times \text{Time}$$

$$\text{Distance} = 12 \text{ km/h} \times 2.5 \text{ h}$$

$$\text{Distance} = 30 \text{ km}$$

**Q6 When a drop of vinegar solution is put on the litmus paper, it turns**

- (a) red
- (b) blue
- (c) Green
- (d) Yellow

Feedback for correct answers

As we know that litmus paper is used to test the pH balance of a substance or liquid. Most of the substances are either acid or alkali. It is found that blue litmus is used to test acidic pH level and red litmus is used to test acidic pH level. Acidic medium have a range of pH about less than 7, and basic medium is found to have pH range higher than 7.

**Q7 Assertion (A):** All microorganisms present around us are invisible helpers that produce medicines and help digest food.

**Reason (R):** Some microbes can be harmful and cause infections in our bodies.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is NOT the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true

Answer (d) A is false, but R is true

Feedback for correct answers

While many microbes are indeed invisible helpers for digestion and medicines, not all of them are beneficial; some are harmful and cause infections.

**Q8 Assertion (A):** Electric current can be used to keep us warm during winters.

**Reason (R):** Electric motors and machines function due to the heating effect of electric current.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is NOT the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true

Answer C A is true, but R is false

Feedback for correct answers

We depend on the heating effect of electric current to stay warm, but motors and machines function due to the magnetic effect of electric current, not the heating effect[cite:

**Q9** What scientific principle explains why a puri puffs up when fried?

- a) Air circulation inside the oil
- b) Evaporation of water forming steam
- c) Addition of baking soda
- d) Melting of gluten

Answer (b) Evaporation of water forming steam

Feedback for correct answers

The puffing happens because of steam expansion inside the puri, not air movement in the oil. When water in the dough turns to steam, it gets trapped by the quickly cooked outer crust. The steam expands due to heat and pushes the puri walls outward. The oil's job is just to provide uniform high heat to seal the surface fast and cook both sides at once

Q10 Why do we classify materials in science?

- (a) To decorate the laboratory
- (b) To reduce their weight
- (c) To study their uses and properties better
- (d) To mix them easily
- (e) Feedback for correct answers
  - (c) We classify materials into groups like metals, non-metals, acids, bases, solids, liquids, etc. This helps us compare similar materials, predict behavior, remember properties easily, and decide where each material can be used safely.

Feedback for incorrect answers

- (a) Classification has no relation to decoration. It's a scientific process, not aesthetic. We classify to organize knowledge, not for looks.
- (b) Grouping materials doesn't change their mass or weight. Classification is just sorting based on properties – it doesn't physically alter the material
- (d) Classification doesn't make mixing easier. In fact, we often classify to avoid mixing incompatible materials. Mixing depends on chemical properties, not on the fact that we've put them in groups.

SUBJECT-MATH

CBT QUESTION PAPER AND ANSWER FOR SESSION -2026-27, MONTH –APRIL

1. A humanitarian agency is packing aid kits. They have 60 blankets and 84 hygiene packs. They want to create identical kits so that no items are left over. What is the maximum number of identical kits they can create?

- 1) 6
- 2) 12
- 3) 15
- 4) 24

ANS-12

2. Two light houses flash their lights at different intervals. Light A flashes every 12 seconds, and Light B flashes every 18 seconds. They both flash together at 8:00 PM. At what time will they next flash together?

- 1) 8:00:30 PM
  - 2) 8:01:00 PM
  - 3) 8:00:36 PM
  - 4) 8:00:48 PM
- ANS- 8:00:36 PM

3. A research submarine starts at sea level (0 meters). It descends 150 meters to collect samples, then rises 80 meters to avoid a coral reef, and finally descends another 40 meters. What is the final position of the submarine relative to sea level?

- 1) -110 meters
- 2) -190 meters
- 3) -270 meters
- 4) -70 meters

ANS-110 M

4. A taxi service charges a fixed base fare of Rs 5 plus Rs 2 for every kilometer traveled. A passenger's total bill came to Rs 21. Which equation represents this situation, where '\$x\$' is the number of kilometers

- 1)  $5x + 2 = 21$
- 2)  $2x + 5 = 21$
- 3)  $7x = 21$
- 4)  $2x - 5 = 21$

ANS-  $2x+5 =21$

5. Two parallel railway tracks are crossed by a straight pedestrian walkway (transversal). If one of the interior angles formed by the walkway and a track is 75 degree . What is the measure of the alternate interior angle on the other track?

- 1) 105 degree
- 2) 180 degree
- 3) 75 degree
- 4) 90 degree

ANS-75 degree

6. You are asked to construct a unique triangle ABC using a ruler and compass. Which set of measurements will allow you to construct exactly one unique triangle?

- 1) angle A = 60 , angle B = 70 , angle C = 50
- 2) AB = 5 cm , BC = 6 cm, AC = 12 cm
- 3) AB = 4 cm , BC = 5 cm , angle B = 45
- 4) angle A = 90 , angle B = 90 , AB = 5 cm

ans-3

7. An architect is designing a triangular support beam. She knows that two sides of the triangle must be 7 cm and 10 cm long. According to the triangle inequality property, which of the following could be the length of the third side?

- 1) 2 cm
- 2) 3 cm
- 3) 15 cm
- 4) 18 cm

Ans-15cm

8. A teacher asks a student to identify a number that cannot be a perfect square just by looking at its unit digit. The student is given a list of four numbers. Which of the following numbers can definitely NOT be a perfect square?

- 1) 1,024
- 2) 2,501
- 3) 4,096
- 4) 3,457

Ans-3457

9. A decorator is tiling a perfectly square gallery floor using large square marble slabs. The floor has an area of 576 square meters. What is the length of one side of the gallery?

- 1) 22 meters
- 2) 24 meters
- 3) 26 meters
- 4) 28 meters

Ans-24 m

10. A chemical plant uses cubic tanks to store liquid nitrogen. One specific tank has a volume of 729 cubic meters. What is the height of the tank?

- 1) 7 meters
- 2) 8 meters
- 3) 9 meters
- 4) 11 meters

Ans- 9 meters

Read the given passage carefully and answer the questions by choosing correct option.

Happiness is not a house that can be built by man's hands, but a song that you hear as you pass the hedge rising suddenly and simply into the night and dying down again. Happiness is optional. It is an inner feeling of contentment and joy. Every man should give a little thought to the duty of being happy. People generally under-rate and neglect this significant duty.

"Nothing too much' is a good maxim of a Greek philosopher. We should control our desires. We should not be a slave to our desires. We should learn to stop while we still wish to continue. We should call off our desires before they are satisfied. "Nothing too much should be our guiding principle when we control our desires. Happiness is inside, not outside.

It is not in the objects. Everyday a person should think and realise that he is a soul and he is alone. For this sake, he should spare some time and realise that nothing belongs to him for ever. He should smile and try to internalise the effect of his smile. He should try to retain the pleasing effect in the inner recesses of his heart and in the ideas of his mind.

Health is also related to happiness. Walking, light physical exercises and light food free from harmful components are as useful for health as hobbies and company of good friends. Company of nature and company of good books create a basis of happy living. Happiness rooted in activity with devotion is an inner feeling of satisfaction or contentment for those who are not enslaved by desires. We are happy only when we exist in relation to the social environment with a positive attitude.

Q.1 According to the text, what is the "significant duty" that people often fail to perform?

- a. Building a stable and secure home for their family.
- b. Actively practicing moderation in their physical desires.
- c. Taking the time to consciously cultivate personal happiness.
- d. Studying the maxims of ancient Greek philosophers.

ANS-C

Q.2: What does the author imply by suggesting we should "call off our desires before they are satisfied"?

- a. We should give up our dreams because they are attainable.
- b. True contentment comes from exercising self-control over our urges.
- c. We should only pursue goals that are easy to attain.
- d. Satisfaction is impossible to attain, so it's better not to try.

ANS-B

3. What should we control?

- a. Needs
- b. Desires
- c. Demands
- d. Feelings

ANS-B

Choose the correct option.

Q.4. **He said, "I have been a great mentor."**

- A. He said that he had been a great mentor.
- B. He said that he was a great mentor.
- C. He exclaimed that he was a great mentor.
- D. He said that he has been a great mentor.

ANS-A

Q. 5: Choose the correct option.

**Can I borrow \_\_\_\_\_ sugar?**

- A. much
- B. some
- C. a little
- D. a few

ANS-B

**Q.6: Choose the correct option.**

**My mother ..... up very early in the morning.**

- a. getting**
- b. gets**
- c. got**
- d. get**

**ANS-B**

Read the given passage carefully and choose the correct option:

*The king's mind raced back to the quarrel with the queen. He remembered her yawn. It was not a sign of disrespect, but a natural act, just as Tenali Rama had explained."*

**QU 7: What does the king's realization suggest?**

- A. He was bored of the conversation.
- B. He was making fun of Rama.
- C. He realized he had been unfair, acting on pride.
- D. He was feeling sleepy.

**ANS-C**

**QU 8: What was the original cause of the quarrel?**

- A. The queen broke a vase.
- B. The queen yawned during the king's poem.
- C. The queen praised another poet.
- D. The queen left the palace.

**ANS-B**

**QU 9 How did Tenali Rama help the king?**

- A. By using a paddy seed analogy.
- B. By scolding the queen.
- C. By ignoring the issue.
- D. By fighting a due

**ANS-A**

**QU 10: Which Parts of Speech is the word" remembered"?**

- a. Noun
- b. Verb
- c. Adjective
- d. none of the above.

**ANS-B**

**Class -VIII**

**CBT QUESTION AND ANSWER FOR SESSION 2026-27 ,MONTH APRIL**

**Syllabus - CRM and 1st chapter**

**1.** Which mountain range is known as the “Water Tower of Asia”?

- a) Aravalli
- b) Himalaya
- c) Vindhya
- d) Satpura

**Ans: b) Himalaya**

**2.** Which region receives very low rainfall?

- a) Himalayas
- b) Coastal plains
- c) Thar Desert
- d) Plateau

**Ans: c) Thar Desert**

**3.** Who founded the Mauryan Empire?

- a) Ashoka
- b) Chandragupta Maurya
- c) Bindusara
- d) Harsha

**Ans: b) Chandragupta Maurya**

**4.** Harsha’s capital was:

- a) Delhi
- b) Kannauj
- c) Patna
- d) Ujjain

**Ans: b) Kannauj**

**5.** Sacred land means:

- a) Agricultural land
- b) Holy place
- c) Desert land
- d) Forest land

**Ans: b) Holy place**

**6.** India is known for:

- a) Unity in uniformity
- b) Unity in diversity
- c) Single culture

d) Single religion

**Ans: b) Unity in diversity**

**7.** Democracy means:

a) Rule by king

b) Rule by army

c) Rule by people

d) Rule by religion

**Ans: c) Rule by people**

**8.** UPI stands for:

a) Universal Payment India

b) Unified Payments Interface

c) United Pay India

d) Unique Payment Interface

**Ans: b) Unified Payments Interface**

**9.** Which is essential for life?

a) Gold

b) Coal

c) Water

d) Marble

**Ans: c) Water**

**10.** Fossil fuels are:

a) Renewable

b) Non-renewable

c) Artificial

d) Living

**Ans: b) Non-renewable**