

Full Practice Exam — Set 2

Science · Class 5 · Full Syllabus Practice Exam

TIME 60 minutes	QUESTIONS 50	TOTAL MARKS 60	MAX. SCORE ___ / 60
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **50 questions** in this paper. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–45 carry **1 mark** each. Questions 46–50 (Achievers Section) carry **3 marks** each.
- There is no negative marking. Use of a calculator is **not** allowed.
- Study every diagram carefully. Rough work may be done at the side of each page.

Section 1 — Logical Reasoning

Q1–Q10 · 1 mark each

- What comes next in the series? 3, 7, 15, 31, 63, ____
 (A) 111 (B) 119
 (C) 127 (D) 135
- Find the **odd one out**: 16, 25, 40, 49
 (A) 16 (B) 25
 (C) 40 (D) 49
- Pen is related to Write in the same way as Scissors is related to ____?
 (A) Draw (B) Paper
 (C) Sharp (D) Cut
- How many **squares** of any size are there in the figure below?



Fig. 4.1 — A square divided into four equal parts

- (A) 4 (B) 5
 (C) 6 (D) 8
- Pointing to a photograph, Meera said, 'She is the daughter of my father's only daughter.' How is the girl in the photograph related to Meera?
 (A) Meera's daughter (B) Meera's sister
 (C) Meera's niece (D) Meera's mother

6. In a certain code, MANGO is written as NBOHP. How is APPLE written in the same code?
- (A) CQQMF (B) BPPME
(C) BQQNF (D) BQQMF
7. 26 January 2026 is a Monday. What day of the week is 26 February 2026?
- (A) Thursday (B) Wednesday
(C) Friday (D) Tuesday
8. Rahul walks 5 km due south. He then turns left and walks 5 km, and turns left again and walks 5 km. How far is he from his starting point, and in which direction?
- (A) 5 km, west of the start (B) 5 km, east of the start
(C) 10 km, east of the start (D) 15 km, south of the start
9. How many **triangles** of any size are there in the figure below?

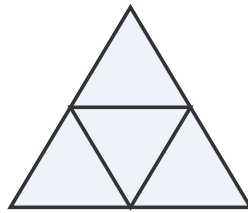


Fig. 9.1 — A triangle with its midpoints joined

- (A) 3 (B) 4
(C) 5 (D) 6
10. In a class test, Aman scored more than Bhavna but less than Chetan. Bhavna scored more than Divya. Who scored the lowest marks?
- (A) Aman (B) Bhavna
(C) Chetan (D) Divya

Section 2 — Science

Q11–Q45 · 1 mark each

11. Which part of a plant absorbs water and dissolved minerals from the soil?
- (A) Root hair (B) Leaf blade
(C) Petal (D) Anther
12. A potato stores food in a swollen underground stem. This kind of food-storing underground stem is called a _____.
- (A) Tap root (B) Tuber
(C) Bulb (D) Rhizome
13. The green pigment present in leaves that traps sunlight for photosynthesis is called _____.
- (A) Xylem (B) Cellulose
(C) Chlorophyll (D) Nectar
14. Cactus plants growing in the desert have leaves reduced to spines. This mainly helps the plant to _____.
- (A) Attract more insects for pollination (B) Store extra food
(C) Absorb extra sunlight (D) Reduce the loss of water through transpiration
15. Which of these animals is a herbivore?
- (A) Deer (B) Tiger
(C) Eagle (D) Crocodile

16. The process in which a caterpillar changes into a butterfly by passing through an inactive pupa stage is called _____.
(A) Migration (B) Metamorphosis
(C) Hibernation (D) Regeneration
17. Which of these animals spends the winter in a deep sleep to save energy when food is scarce?
(A) Housefly (B) Sparrow
(C) Bear (D) Cow
18. Camels can survive many days in the desert without drinking water mainly because _____.
(A) They store water directly inside their hump (B) They drink sea water instead of fresh water
(C) They do not sweat at all, even in extreme heat (D) The fat stored in their hump can be broken down to release energy and water
19. Which blood vessels carry blood away from the heart to the rest of the body?
(A) Arteries (B) Veins
(C) Capillaries (D) Nerves
20. Which organ pumps blood continuously throughout the human body?
(A) Liver (B) Heart
(C) Kidney (D) Lungs
21. Which of these is an example of an **involuntary** action in the human body?
(A) Running in a race (B) Writing an answer
(C) Digestion of food in the stomach (D) Singing a song
22. A child who gets very little sunlight may develop weak and bent bones because of a deficiency of _____.
(A) Vitamin C (B) Vitamin K
(C) Vitamin B (D) Vitamin D
23. For a diet to be called **balanced**, it must provide _____.
(A) Carbohydrates, proteins, fats, vitamins and minerals in the right amounts (B) Only carbohydrates and fats in large amounts
(C) Only proteins, since they build the body (D) Only vitamins and minerals
24. Eating plenty of fruits, vegetables and whole grains helps digestion mainly because they provide _____.
(A) Extra sugar (B) Roughage, or dietary fibre
(C) Extra fat (D) Extra salt
25. Which is the best time to wash your hands thoroughly with soap?
(A) Only after using the toilet (B) Only once a day, in the morning
(C) Before eating food and after using the toilet (D) Only before going to sleep
26. Covering the mouth and nose while coughing or sneezing mainly helps to prevent _____.
(A) A headache (B) Hair fall
(C) Hunger (D) The spread of germs to other people
27. What is the correct first aid for a mild nosebleed?
(A) Sit upright, lean the head slightly forward and pinch the soft part of the nose (B) Tilt the head back and lie down flat
(C) Blow the nose hard several times (D) Push a tissue deep inside the nostril

28. Which state of matter has a fixed volume but takes the shape of the container it is poured into?
- (A) Solid (B) Liquid
(C) Gas (D) Plasma
29. Wet clothes dry faster on a hot, windy day than on a cool, still day mainly because ____.
- (A) Heat turns the water in the clothes to ice (B) Wind removes colour from the clothes
(C) Heat and wind speed up the evaporation of water (D) Wind adds extra water to the clothes
30. A mixture of iron filings and sand can be separated easily by using ____.
- (A) Filtration (B) Sieving alone
(C) Evaporation (D) A magnet
31. Which of these is a **renewable** source of energy?
- (A) Sunlight (B) Petroleum
(C) Coal (D) Natural gas
32. Which of these is the best way to conserve water at home?
- (A) Leaving the tap running while brushing teeth (B) Fixing leaking taps promptly and reusing water where possible
(C) Washing the car every day with a running hose (D) Watering the garden in the middle of a hot afternoon
33. Study the see-saw shown below, with each child's weight and distance from the fulcrum marked. What will happen?

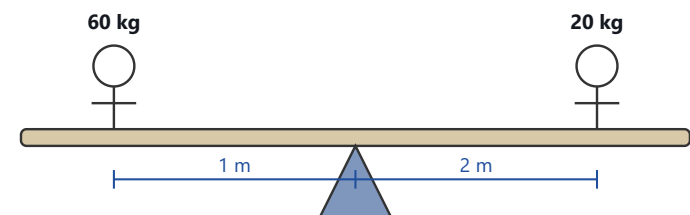


Fig. 33.1 — Two children on a see-saw

- (A) It will stay balanced (B) The side with the 20 kg child will go down
(C) The side with the 60 kg child will go down (D) It will spin around the fulcrum
34. Bicycle tyres are made with a grooved tread pattern mainly to ____.
- (A) Reduce the overall weight of the tyre (B) Reduce the cost of making the tyre
(C) Make the bicycle look more attractive (D) Increase friction with the road for a better grip
35. A crane lifts boxes straight up through the same height each time. If it lifts a heavier box instead of a lighter one, the work done against gravity ____.
- (A) Increases (B) Decreases
(C) Stays exactly the same (D) Becomes zero
36. In an electric iron, the electrical energy supplied is mainly converted into ____.
- (A) Light energy (B) Heat energy
(C) Sound energy (D) Chemical energy

37. Frosted glass lets light pass through it, but objects on the other side look blurred rather than clear. Frosted glass is best described as _____.
 (A) Transparent (B) Opaque
 (C) Translucent (D) Reflective
38. A dentist uses a small angled mirror to see the back of a patient's teeth clearly. This use of the mirror depends on the _____.
 (A) Refraction of light (B) Scattering of light
 (C) Dispersion of light (D) Reflection of light
39. In the circuit shown below, the switch is open. Will the bulb glow?

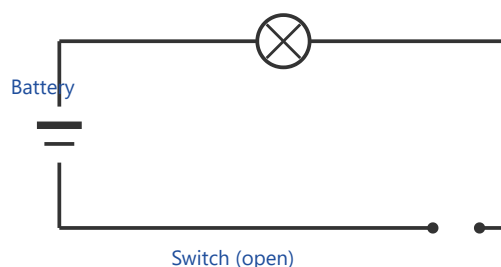


Fig. 39.1 — A simple electric circuit with an open switch

- (A) No, because the open switch breaks the circuit (B) Yes, because the battery is still connected
 (C) Yes, but only very dimly (D) No, because the bulb itself is broken
40. A tabla with a tightly stretched membrane produces a _____ sound than one with a loosely stretched membrane.
 (A) Louder (B) Higher pitched
 (C) Softer (D) Lower pitched
41. Sound generally travels fastest through _____.
 (A) Vacuum (B) Air
 (C) Steel (D) Water
42. Earthworms are often called a farmer's friend mainly because they _____.
 (A) Eat up harmful crop pests (B) Protect young plants from strong sunlight
 (C) Produce fertiliser inside factories (D) Loosen and aerate the soil as they burrow, which improves its fertility
43. In the grassland food chain grass → grasshopper → frog → snake → eagle, the snake is a _____.
 (A) Tertiary consumer (B) Primary consumer
 (C) Secondary consumer (D) Producer
44. The earth takes approximately _____ to complete one full spin on its axis, which causes day and night.
 (A) 30 days (B) 24 hours
 (C) 365 days (D) 12 hours
45. Compared with the earth, the moon has _____ gravity, which is why astronauts can jump much higher there than on earth.
 (A) Much stronger (B) About the same
 (C) Much weaker (D) No gravity at all

46. Consider the following statements.

- (i) Filtration can separate common salt dissolved in water from the water.
- (ii) A magnet can be used to separate iron nails from a mixture of iron nails and rice grains.
- (iii) Sound cannot travel through a vacuum, but light can.

Which of the statements is/are correct?

- (A) (i) and (ii) only
- (B) (ii) and (iii) only
- (C) (i) and (iii) only
- (D) All three

47. Assertion (A): It becomes difficult to breathe on the top of a very high mountain.

Reason (R): The air at high altitudes is thinner, and the amount of oxygen available is lower.

- (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

48. Match each item in Column I with the correct description in Column II.

Column I	Column II
(P) Tadpole changing into a frog	(1) Growth and development
(Q) Water changing into water vapour on heating	(2) Chemical change
(R) An iron nail rusting in damp air	(3) Physical change
(S) A seed growing into a seedling	(4) Metamorphosis

Table 48.1

- (A) P-1, Q-2, R-3, S-4
- (B) P-3, Q-4, R-1, S-2
- (C) P-2, Q-1, R-4, S-3
- (D) P-4, Q-3, R-2, S-1

49. Two identical glasses are filled with equal amounts of water. Glass A is left uncovered and Glass B is covered with a lid. Both are kept in a sunny spot for two days. The water level in Glass A drops noticeably, while the level in Glass B stays almost the same. Which conclusion is best supported by this result?

- (A) Covering water prevents it from evaporating into the air
- (B) The lid adds extra water to Glass B
- (C) Sunlight affects only covered glasses
- (D) The water in Glass A changed into ice

50. A cyclist rides from her home to school, a distance of 3 km, in 15 minutes at a steady speed. At the same steady speed, how long would she take to cover 5 km?

- (A) 20 minutes
- (B) 25 minutes
- (C) 30 minutes
- (D) 45 minutes

Answer Key

1	C	2	C	3	D	4	B	5	A
6	D	7	A	8	B	9	C	10	D
11	A	12	B	13	C	14	D	15	A
16	B	17	C	18	D	19	A	20	B
21	C	22	D	23	A	24	B	25	C
26	D	27	A	28	B	29	C	30	D
31	A	32	B	33	C	34	D	35	A
36	B	37	C	38	D	39	A	40	B
41	C	42	D	43	A	44	B	45	C
46	B	47	A	48	D	49	A	50	B

Solutions

1. Answer: (C) 127

Each term is double the previous term plus 1: $3 \times 2 + 1 = 7$, $7 \times 2 + 1 = 15$, $15 \times 2 + 1 = 31$, $31 \times 2 + 1 = 63$.
The next term is $63 \times 2 + 1 = \mathbf{127}$.

2. Answer: (C) 40

$16 = 4 \times 4$, $25 = 5 \times 5$ and $49 = 7 \times 7$ — each is a whole number multiplied by itself. **40** is not a perfect square, so it is the odd one out.

3. Answer: (D) Cut

A pen is a tool used to write. In the same way, scissors are a tool used to **cut**, so the missing word completes the pair the same way.

4. Answer: (B) 5

The two lines divide the big square into **4 small squares**. Counting the outer square itself as well gives $4 + 1 = \mathbf{5}$ squares in total.

5. Answer: (A) Meera's daughter

Meera's father's **only daughter** must be Meera herself, since she is the only daughter he has. So the girl in the photograph is the daughter of Meera, that is, **Meera's daughter**.

6. Answer: (D) BQQMF

Each letter is shifted one step forward in the alphabet: $M \rightarrow N$, $A \rightarrow B$, $N \rightarrow O$, $G \rightarrow H$, $O \rightarrow P$.
Applying the same shift to APPLE: $A \rightarrow B$, $P \rightarrow Q$, $P \rightarrow Q$, $L \rightarrow M$, $E \rightarrow F$, giving **BQQMF**.

7. Answer: (A) Thursday

January has 31 days, so 26 February is 31 days after 26 January.
Every 7 days the weekday repeats, and $31 = 7 \times 4 + 3$, so the day moves forward by 3 from Monday.
Monday + 3 days = **Thursday**.

8. Answer: (B) 5 km, east of the start

Walking south and then turning left twice, each turn through a right angle, changes his direction from south to east and then from east to north.
Plotting the three equal legs of the walk shows his final position lies exactly **5 km to the east** of where he started.

9. Answer: (C) 5

Joining the midpoints of the three sides splits the big triangle into 4 small triangles — three at the corners and one in the middle.
Counting the original outer triangle as well gives $4 + 1 = \mathbf{5}$ triangles in total.

10. Answer: (D) Divya

From the clues: Chetan > Aman > Bhavna, and also Bhavna > Divya.
Putting these together gives the order Chetan, Aman, Bhavna, Divya from highest to lowest, so **Divya** scored the lowest marks.

11. Answer: (A) Root hair

Root hairs are thin, thread-like extensions near the tip of a root. They greatly increase the surface in contact with soil, allowing the root to absorb water and dissolved minerals efficiently.

12. Answer: (B) Tuber

A **tuber** is a swollen underground stem that stores food, as seen in the potato. A bulb, like an onion, stores food in fleshy leaf layers instead, and a rhizome is a food-storing stem that grows sideways, as in ginger.

13. Answer: (C) Chlorophyll

Chlorophyll gives leaves their green colour and absorbs sunlight, providing the energy needed to make food from carbon dioxide and water during photosynthesis.

14. Answer: (D) Reduce the loss of water through transpiration

Broad, flat leaves lose a great deal of water vapour through transpiration. By reducing its leaves to thin spines, a cactus cuts down this surface sharply and **conserves water**; its thick green stem carries out photosynthesis instead.

15. Answer: (A) Deer

A herbivore eats only plants. A **deer** feeds on grass and leaves, while the tiger, eagle and crocodile are all carnivores that hunt other animals.

16. Answer: (B) Metamorphosis

Metamorphosis is a dramatic change in body form during an animal's life cycle. The caterpillar (larva) encloses itself in a pupa, inside which its body is completely reorganised before it emerges as an adult butterfly.

17. Answer: (C) Bear

Sleeping through the cold winter months is called hibernation. A **bear** builds up fat in autumn and hibernates through winter, so its body needs very little energy until food is plentiful again.

18. Answer: (D) The fat stored in their hump can be broken down to release energy and water

A camel's hump stores fat, not water. When food and water are scarce, this fat is broken down inside the body, releasing both energy and a useful amount of **water**, which helps the camel survive long desert journeys.

19. Answer: (A) Arteries

Arteries carry oxygen-rich blood away from the heart under high pressure, so they have thick, elastic walls. Veins carry blood back to the heart, and capillaries are the tiny vessels where exchange with body cells happens.

20. Answer: (B) Heart

The **heart** is a muscular pump that contracts and relaxes rhythmically, pushing blood through the arteries to every part of the body and receiving it back through the veins.

21. Answer: (C) Digestion of food in the stomach

An involuntary action happens automatically, without a conscious decision, and continues even while we sleep. **Digestion of food** is controlled by the body itself, unlike running, writing or singing, which we choose to do.

22. Answer: (D) Vitamin D

Vitamin D helps the body absorb calcium, which keeps bones strong and hard. Sunlight on the skin helps the body make its own vitamin D, so too little sunlight can lead to weak, bent bones, a condition called rickets.

23. Answer: (A) Carbohydrates, proteins, fats, vitamins and minerals in the right amounts

A balanced diet is not about eating a lot of one kind of food. It supplies **carbohydrates and fats for energy, proteins for growth and repair, and vitamins and minerals** in the right proportions, along with enough water and roughage.

24. Answer: (B) Roughage, or dietary fibre

Fruits, vegetables and whole grains contain **roughage**, the fibrous part of plant food that the body cannot digest. Roughage adds bulk to the waste in the intestine and helps it move smoothly, preventing constipation.

25. Answer: (C) Before eating food and after using the toilet

Hands pick up germs from many surfaces during the day. Washing them with soap **before eating and after using the toilet** stops germs from entering the mouth with food or spreading further.

26. Answer: (D) The spread of germs to other people

Coughing and sneezing shoot out tiny droplets that can carry germs. Covering the mouth and nose traps most of these droplets, so fewer germs **spread to people** nearby.

27. Answer: (A) Sit upright, lean the head slightly forward and pinch the soft part of the nose

Sitting upright and leaning forward keeps blood from running down the throat, and **pinching the soft part of the nose** for several minutes helps a small blood vessel to clot. Tilting the head back can make a person swallow blood instead.

28. Answer: (B) Liquid

A **liquid** has a definite volume, but no fixed shape of its own, and flows to take the shape of whatever container holds it. A solid keeps both its shape and volume, and a gas has neither.

- 29. Answer: (C)** Heat and wind speed up the evaporation of water
Heat gives water molecules more energy to escape as vapour, and moving air carries the vapour away quickly. Together, heat and wind speed up **evaporation** and dry the clothes faster.
- 30. Answer: (D)** A magnet
Iron is attracted to a magnet, but sand is not. Moving a **magnet** through the mixture pulls out the iron filings, leaving the sand behind.
- 31. Answer: (A)** Sunlight
Sunlight keeps arriving from the sun every day and will not run out, so it is renewable. Coal, petroleum and natural gas are fossil fuels that formed over millions of years and cannot be replaced once used up.
- 32. Answer: (B)** Fixing leaking taps promptly and reusing water where possible
A dripping tap can waste a large amount of water over a day, so **fixing leaks and reusing water** saves it. Running taps unnecessarily and watering in strong sunlight, when much of the water evaporates before it can be used, waste water instead.
- 33. Answer: (C)** The side with the 60 kg child will go down
A see-saw balances when $\text{weight} \times \text{distance from the fulcrum}$ is equal on both sides.
Side with the 60 kg child: $60 \times 1 = 60$. Side with the 20 kg child: $20 \times 2 = 40$.
The turning effect is larger on the heavier side, so the **side with the 60 kg child** goes down.
- 34. Answer: (D)** Increase friction with the road for a better grip
A rough, grooved surface grips the road far better than a smooth one because it increases **friction** between the tyre and the road, helping the rider steer and brake safely.
- 35. Answer: (A)** Increases
Work done against gravity equals the lifting force multiplied by the height raised. A heavier box needs a greater force to lift, and since the height is unchanged, the work done **increases**.
- 36. Answer: (B)** Heat energy
The heating element inside an electric iron resists the flow of current, and this resistance converts electrical energy mainly into **heat**, which presses out creases in clothes.
- 37. Answer: (C)** Translucent
A **translucent** material allows some light through but scatters it, so objects seen through it appear blurred. A transparent material, like clear glass, lets you see through sharply, and an opaque material lets no light through at all.
- 38. Answer: (D)** Reflection of light
A plane mirror forms an image by **reflection**, bouncing light back at an angle instead of letting it pass through or bend. This redirects light from the back of the teeth so it reaches the eye.
- 39. Answer: (A)** No, because the open switch breaks the circuit
Current can flow only through a complete, unbroken path. The gap at the **open switch** breaks this path, so no current reaches the bulb and it does not glow, even though the battery is connected.
- 40. Answer: (B)** Higher pitched
A tightly stretched membrane vibrates faster than a loose one when struck. Faster vibrations mean a higher frequency, which we hear as a **higher pitched** sound.
- 41. Answer: (C)** Steel
Sound needs a medium to travel and moves fastest where particles are packed closely together and can pass vibrations on quickly. Particles are closest in a solid like **steel**, so sound travels fastest through it, slower through water and air, and not at all through a vacuum.
- 42. Answer: (D)** Loosen and aerate the soil as they burrow, which improves its fertility
As earthworms tunnel through the ground, they **loosen compact soil** and let air and water reach plant roots more easily, while their waste adds nutrients to the soil.

43. Answer: (A) Tertiary consumer

Grass is the producer. The grasshopper, which eats grass, is the primary consumer. The frog, which eats the grasshopper, is the secondary consumer. The snake eats the frog, making it the **tertiary consumer**, before it is in turn eaten by the eagle.

44. Answer: (B) 24 hours

The earth spins once on its axis in about **24 hours**. The side facing the sun experiences day, while the side facing away experiences night, and this spin is what causes the day-night cycle.

45. Answer: (C) Much weaker

The moon is much smaller and less massive than the earth, so its gravitational pull is **much weaker**, roughly one-sixth of the earth's. With less gravity pulling them down, astronauts on the moon can jump far higher for the same effort.

46. Answer: (B) (ii) and (iii) only

Statement (i) is false, since filtration only holds back solids that do not dissolve, and dissolved salt passes through the filter paper along with the water; evaporation would be needed instead. Statement (ii) is true, because iron is attracted to a magnet while rice grains are not. Statement (iii) is true, since sound needs a medium to travel and cannot pass through empty space, whereas light can travel through a vacuum, which is how sunlight reaches the earth. Hence **(ii) and (iii)** are correct.

47. Answer: (A) Both A and R are true, and R is the correct explanation of A

Breathing does become harder at great heights, so the assertion is true. This happens because the air pressure and the amount of oxygen both drop as altitude increases, so the reason is true as well, and it **correctly explains** why the assertion occurs.

48. Answer: (D) P-4, Q-3, R-2, S-1

A tadpole turning into a frog is a dramatic change in body form, called metamorphosis (4). Water turning into vapour is a physical change, since no new substance is formed and it can turn back into water on cooling (3). Rusting forms a new substance, iron oxide, from iron and oxygen, making it a chemical change (2). A seed developing into a seedling is an example of growth and development (1). Hence P-4, Q-3, R-2, S-1.

49. Answer: (A) Covering water prevents it from evaporating into the air

The lid is the only difference between the two set-ups. In the open glass, water molecules escape freely into the air as vapour, so the level drops. In the covered glass, the vapour that does form stays trapped and cannot escape, so hardly any change is seen. This shows that **covering water reduces the amount lost to evaporation**.

50. Answer: (B) 25 minutes

Her speed is distance divided by time: 3 km in 15 minutes is 0.2 km every minute.

Time for 5 km at this speed = $5 \div 0.2 = \mathbf{25 \text{ minutes}}$.