

Full Practice Exam — Set 2

Science · Class 6 · 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. Study every diagram and table carefully.

Section 1 — Logical Reasoning

Q1–Q10 · 1 mark each

- What comes next in the series? 2, 6, 12, 20, 30, ____
 (A) 36 (B) 40
 (C) 42 (D) 45
- Find the **odd one out**: Frog, Toad, Crocodile, Salamander
 (A) Frog (B) Toad
 (C) Salamander (D) Crocodile
- What comes next in the letter series? ZA, YB, XC, ____
 (A) WE (B) WD
 (C) VD (D) XD
- In a certain code, TREE is written as 20-18-5-5. How is PLANT written in the same code?
 (A) 16-12-1-13-20 (B) 16-11-1-14-20
 (C) 15-12-1-14-20 (D) 16-12-1-14-20
- Wings are to a bird as fins are to a ____.
 (A) Fish (B) Snake
 (C) Sparrow (D) Insect
- A girl is facing south. She turns 90° clockwise, and then turns another 180°. Which direction is she facing now?
 (A) North (B) East
 (C) West (D) South
- If 1st January is a Monday, what day of the week is 1st February (January has 31 days)?
 (A) Wednesday (B) Friday
 (C) Thursday (D) Saturday

8. How many **triangles** of any size are there in the figure below?

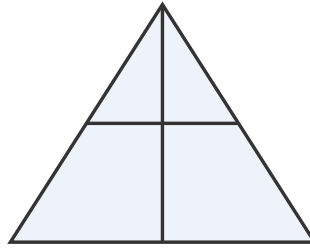


Fig. 1.1

- (A) 4
(B) 5
(C) 6
(D) 8

9. What comes next in the series? AB1, CD2, EF3, ____

- (A) GH5
(B) GI4
(C) FG4
(D) GH4

10. The day before yesterday was Saturday. What day will it be the day after tomorrow?

- (A) Wednesday
(B) Tuesday
(C) Thursday
(D) Friday

Section 2 — Science

Q11–Q35 · 1 mark each

11. Proteins in our food are needed mainly for ____.

- (A) Providing roughage for digestion
(B) Growth and repair of body cells
(C) Releasing quick energy
(D) Protecting the body from infections

12. A prolonged deficiency of vitamin C in the diet causes the disease ____.

- (A) Night blindness
(B) Rickets
(C) Scurvy
(D) Anaemia

13. In a food test, a few drops of copper sulphate solution followed by caustic soda solution are added to a food sample and it turns violet. What does this indicate?

- (A) The presence of vitamin C
(B) The presence of starch
(C) The presence of fat
(D) The presence of protein

14. The property of a material that lets light pass through it so clearly that objects can be seen distinctly through it is called ____.

- (A) Transparency
(B) Opacity
(C) Translucency
(D) Lustre

15. Study the figure of the plant. The part labelled X mainly helps the plant to _____.

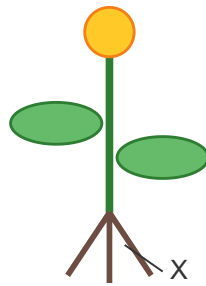


Fig. 2.1

- (A) Make food using sunlight
(B) Absorb water and minerals from the soil
(C) Attract insects for pollination
(D) Carry food to other parts of the plant
16. Which method would you use to separate a mixture of sand and water?
(A) Winnowing
(B) Evaporation
(C) Filtration
(D) Handpicking
17. Common salt can be recovered from its solution in water by _____.
(A) Filtration
(B) Winnowing
(C) Sieving
(D) Evaporation
18. Organisms that live in water, such as fish and octopuses, are called _____ organisms.
(A) Aquatic
(B) Terrestrial
(C) Aerial
(D) Amphibious
19. Which joint allows you to rotate your head from side to side, as when shaking your head to say 'no'?
(A) Hinge joint
(B) Pivot joint
(C) Ball-and-socket joint
(D) Fixed joint
20. The transfer of pollen grains from the anther to the stigma of a flower is called _____.
(A) Fertilisation
(B) Germination
(C) Pollination
(D) Respiration
21. Animals such as hens and lizards, which lay eggs that later hatch into young ones, are called _____.
(A) Nocturnal animals
(B) Viviparous animals
(C) Herbivorous animals
(D) Oviparous animals
22. Which gas in the air is essential for burning and is also used by living things during respiration?
(A) Oxygen
(B) Nitrogen
(C) Carbon dioxide
(D) Argon
23. Roughly what fraction of the human body is made up of water?
(A) About one-tenth
(B) About two-thirds
(C) About one-quarter
(D) Almost none
24. Waste materials such as vegetable peels and fruit waste, which decompose naturally through the action of microbes, are called _____.
(A) E-waste
(B) Non-biodegradable waste
(C) Biodegradable waste
(D) Recyclable metal waste

- 25.** A translucent object, such as frosted glass, allows _____ light to pass through it.
- (A) All the (B) Only coloured
(C) None of the (D) Some of the
- 26.** A device used to break or complete an electric circuit at will is called a _____.
- (A) Switch (B) Bulb
(C) Wire (D) Battery
- 27.** Adding a large amount of sugar helps preserve fruit jams mainly because it _____.
- (A) Adds extra vitamins to the jam (B) Removes the moisture that microbes need to grow
(C) Changes the colour of the jam (D) Increases the oxygen content of the jam
- 28.** A wooden spoon is preferred over a metal spoon for stirring hot food because wood is a poor conductor of _____.
- (A) Sound (B) Light
(C) Heat (D) Water
- 29.** A farmer wants to separate lightweight husk from heavier wheat grains using the wind. Which method should be used?
- (A) Sublimation (B) Filtration
(C) Sieving (D) Winnowing
- 30.** Cactus plants have thick, fleshy stems mainly to _____.
- (A) Store water for survival in dry conditions (B) Attract more insects for pollination
(C) Increase the surface area for water loss (D) Support climbing on other plants
- 31.** Which of these joints allows movement in the greatest number of directions, as found at the shoulder?
- (A) Hinge joint (B) Ball-and-socket joint
(C) Pivot joint (D) Fixed joint
- 32.** An opaque ball is held between a lamp and a screen. Moving the ball closer to the lamp makes its shadow on the screen _____.
- (A) Disappear completely (B) Smaller
(C) Larger (D) Change colour
- 33.** Which of these habits helps conserve water at home?
- (A) Letting a leaking tap drip overnight (B) Leaving the tap running while soaping hands
(C) Spraying the garden with a hose for hours (D) Turning off the tap while brushing teeth
- 34.** In the circuit shown, the switch is open. What happens to the bulb?

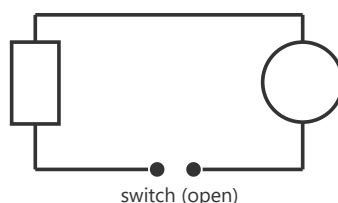


Fig. 2.2

- (A) It does not light up, because the circuit is broken (B) It lights up dimly
(C) It lights up brightly (D) It blows up

35. A dry seed is soaked in water and kept in a warm, moist place. After a few days it swells and a tiny root emerges from it. This process is called _____.

- (A) Fermentation
- (B) Germination
- (C) Pollination
- (D) Transpiration

Section 2 — Science (contd.)

Q36–Q45 · 1 mark each

36. Which tissue carries the food made in the leaves to other parts of the plant?

- (A) Cambium
- (B) Xylem
- (C) Phloem
- (D) Cuticle

37. Which of these objects would **not** be attracted by a bar magnet?

- (A) Iron nail
- (B) Steel pin
- (C) Nickel coin
- (D) Copper coin

38. Which simple machine is used in a see-saw at a playground?

- (A) Lever
- (B) Pulley
- (C) Wheel and axle
- (D) Inclined plane

39. When you look at the word 'MATH' written on a card held up to a plane mirror, the image you see is best described as _____.

- (A) Upside down
- (B) Left-right reversed
- (C) Exactly the same as the card
- (D) Too blurred to read

40. If the pinhole in a pinhole camera is made larger, the image formed on the screen becomes _____.

- (A) Upright instead of inverted
- (B) Sharper and brighter
- (C) Brighter but blurred
- (D) Coloured instead of grey

41. A shopkeeper wants to quickly remove iron nails that have accidentally mixed into a bag of rice grains. The easiest method is to use a _____.

- (A) Winnowing tray
- (B) Sieve
- (C) Filter paper
- (D) Magnet

42. A fish swims through water mainly by moving its body from side to side with the help of its _____.

- (A) Muscles and fins
- (B) Legs
- (C) Wings
- (D) Suckers

43. Which of these correctly matches a habitat with an adaptation found there?

- (A) Desert animals — thick fur and a layer of fat for insulation
- (B) Polar animals — thick fur and a layer of fat for insulation
- (C) Aquatic animals — long roots to search for water
- (D) Mountain animals — gills to breathe underwater

44. Bread dough rises because yeast mixed into it breaks down sugar and releases a gas that forms bubbles. Which gas is this?

- (A) Nitrogen
- (B) Oxygen
- (C) Carbon dioxide
- (D) Hydrogen

45. Study the table below, which classifies four materials.

Material	State	Transparency
Wood	Solid	Opaque
Water	Liquid	Transparent
Air	Gas	Transparent
Milk	Liquid	Transparent

(A) Wood

(C) Air

(B) Water

(D) Milk

Achievers Section

Q46–Q50 · 3 marks each

46. Consider the following statements.

(i) Boiling water for a few minutes kills most disease-causing germs in it.

(ii) All living organisms need air, water and food to stay alive.

(iii) The image formed by a plane mirror can be caught on a screen like a photograph.

Which of the statements is/are correct?

(A) (i) and (ii) only

(C) (i) and (iii) only

(B) (ii) and (iii) only

(D) All three

47. Assertion (A): A fish can live underwater without ever coming up to the surface for air.

Reason (R): Fish absorb oxygen dissolved in water through their gills.

(A) Both A and R are true, and R is the correct explanation of A

(C) A is true, but R is false

(B) Both A and R are true, but R is not the correct explanation of A

(D) A is false, but R is true

48. Match List I (process) with List II (example) and choose the combination in which all four pairs are correct.

List I: (P) Filtration (Q) Evaporation (R) Sublimation (S) Magnetic separation

List II: (1) Recovering salt from salt water (2) Separating camphor from sand (3) Separating iron filings from sulphur powder (4) Separating tea leaves from brewed tea

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

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

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

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

49. Read the following pairs about animals.

(i) Camel — a hump that stores fat for energy in the desert

(ii) Earthworm — moves using legs

(iii) Bird — hollow bones that make flight easier

(iv) Snail — moves using a muscular foot

Which pair is incorrectly matched?

(A) (i)

(C) (iii)

(B) (ii)

(D) (iv)

- 50.** Two identical potted plants, X and Y, of the same size are placed in the same sunny spot and given the same amount of air. Plant X is watered regularly, while plant Y is not watered for a whole week. By the end of the week, plant Y's leaves have drooped and turned limp, while plant X remains healthy. What does this experiment mainly show?
- (A) Sunlight is not necessary for healthy plant growth (B) Water is essential for a plant to stay firm and carry out its life processes
- (C) Plants do not need water at all to survive (D) Air is more important to a plant than water

Answer Key

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

Solutions

1. Answer: (C) 42

The differences between consecutive terms are 4, 6, 8, 10, increasing by 2 each time. The next difference is 12, so the next term is $30 + 12 = 42$.

2. Answer: (D) Crocodile

Frog, toad and salamander are amphibians that spend part of their life in water and part on land. A **crocodile** is a reptile, so it is the odd one out.

3. Answer: (B) WD

The first letter moves backward from Z (Z, Y, X, **W**), while the second letter moves forward from A (A, B, C, **D**). So the next pair is **WD**.

4. Answer: (D) 16-12-1-14-20

Each letter is replaced by its position in the alphabet: P=16, L=12, A=1, N=14, T=20, giving **16-12-1-14-20**.

5. Answer: (A) Fish

A bird uses wings to move through air, just as a **fish** uses fins to move through water.

6. Answer: (B) East

Starting from south, a 90° clockwise turn brings her to face west. Turning another 180° from west brings her to face **east**.

7. Answer: (C) Thursday

From 1st January to 1st February is 31 days later. $31 = 4 \times 7 + 3$, so it is 3 days after Monday: Tuesday, Wednesday, **Thursday**.

8. Answer: (C) 6

The vertical line splits the large triangle into two, giving 3 triangles including the whole outline. The horizontal line marks off a smaller triangle near the top; the same vertical line splits this smaller triangle into two more. In all, $3 + 1 + 2 = 6$ triangles.

9. Answer: (D) GH4

The letters advance two places each time (AB, CD, EF, **GH**) while the number simply counts up by one (1, 2, 3, **4**). The next term is **GH4**.

10. Answer: (A) Wednesday

If the day before yesterday was Saturday, yesterday was Sunday and today is Monday. Tomorrow will be Tuesday, and the day after tomorrow will be **Wednesday**.

11. Answer: (B) Growth and repair of body cells

Proteins are body-building foods used for the **growth and repair of body cells**.

12. Answer: (C) Scurvy

A lack of vitamin C over a long period causes **scurvy**, with bleeding gums and slow wound healing.

13. Answer: (D) The presence of protein

Copper sulphate and caustic soda turning a food sample violet is a standard test for the **presence of protein**.

14. Answer: (A) Transparency

A material through which objects are seen clearly is called **transparent**; this property is transparency.

15. Answer: (B) Absorb water and minerals from the soil

The part labelled X is the root system at the base of the stem. Roots anchor the plant and **absorb water and minerals from the soil**.

16. Answer: (C) Filtration

Passing the mixture through a filter paper traps the sand while water passes through — this is **filtration**.

17. Answer: (D) Evaporation

Heating the salt solution drives off the water as vapour, leaving the salt behind — this is **evaporation**.

18. Answer: (A) Aquatic

Organisms that live in water are called **aquatic** organisms.

19. Answer: (B) Pivot joint

The joint between the skull and the topmost neck bone is a **pivot joint**, which allows the head to rotate.

20. Answer: (C) Pollination

This transfer of pollen is called **pollination**, and it must happen before fertilisation can occur.

21. Answer: (D) Oviparous animals

Animals that reproduce by laying eggs are called **oviparous** animals.

22. Answer: (A) Oxygen

Oxygen supports both combustion and respiration.

23. Answer: (B) About two-thirds

Water makes up **about two-thirds** of the human body, which is why regular drinking of water is essential.

24. Answer: (C) Biodegradable waste

Waste that breaks down naturally is called **biodegradable waste**.

25. Answer: (D) Some of the

A translucent material lets **some of the** light through, so objects behind it look blurred rather than clear.

26. Answer: (A) Switch

A **switch** is used to open or close the path of an electric circuit.

27. Answer: (B) Removes the moisture that microbes need to grow

A high concentration of sugar draws out water from any microbes present, so they cannot survive — this **removes the moisture microbes need to grow**.

28. Answer: (C) Heat

Wood does not carry **heat** well, so the handle stays cool enough to hold even while stirring hot food.

29. Answer: (D) Winnowing

Blowing wind carries away the lighter husk while the heavier grains fall straight down — this is **winnowing**.

30. Answer: (A) Store water for survival in dry conditions

The thick, fleshy stem of a cactus is adapted to **store water**, helping it survive long dry spells in the desert.

31. Answer: (B) Ball-and-socket joint

A **ball-and-socket joint** allows movement in many directions, unlike a hinge joint which bends in only one plane.

32. Answer: (C) Larger

Moving the object closer to the light source spreads the blocked light over a wider area on the screen, making the shadow **larger**.

33. Answer: (D) Turning off the tap while brushing teeth

Turning off the tap while brushing teeth stops water from being wasted needlessly, unlike the other habits, which all waste water.

34. Answer: (A) It does not light up, because the circuit is broken

The two dots at the switch are not touching, so there is a gap in the path. Current cannot flow through a broken path, so the bulb **does not light up**.

35. Answer: (B) Germination

The sprouting of a seed into a young seedling is called **germination**.

36. Answer: (C) Phloem

Phloem transports food manufactured in the leaves to the rest of the plant.

37. Answer: (D) Copper coin

Iron, steel and nickel are magnetic materials, but **copper** is not attracted by a magnet.

38. Answer: (A) Lever

A see-saw turns about a fixed point, which is how a **lever** works.

39. Answer: (B) Left-right reversed

A plane mirror produces a **left-right reversed** image, which is why writing appears back-to-front in a mirror.

40. Answer: (C) Brighter but blurred

A larger hole lets in more light rays from each point of the object, so the image becomes **brighter but blurred**.

41. Answer: (D) Magnet

Passing a **magnet** over the mixture pulls out the iron nails while leaving the rice behind.

42. Answer: (A) Muscles and fins

A fish uses its **muscles and fins** to push against the water and move forward.

43. Answer: (B) Polar animals — thick fur and a layer of fat for insulation

Polar animals have thick fur and a layer of fat (blubber) to keep them warm in the extreme cold, unlike the other pairings, which describe adaptations that do not match their habitats.

44. Answer: (C) Carbon dioxide

Yeast breaks down sugar and releases **carbon dioxide** gas, whose bubbles make the dough rise.

45. Answer: (D) Milk

Wood, water and air are correctly classified. **Milk** is actually opaque, not transparent, since light cannot pass through it clearly, so the milk row is incorrectly matched.

46. Answer: (A) (i) and (ii) only

Statement (i) is correct, since boiling kills most germs. Statement (ii) is correct, since every living organism needs air, water and food. Statement (iii) is incorrect, because a plane mirror forms a virtual image that cannot be caught on a screen. Hence **(i) and (ii) only** are correct.

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

A fish indeed never needs to surface for air, and this is precisely because its **gills** extract dissolved oxygen from the surrounding water. Since the reason correctly explains the assertion, the answer is that **both statements are true and the reason is the correct explanation**.

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

Filtration separates tea leaves from brewed tea (P-4). Evaporation recovers salt from salt water by driving off the water (Q-1). Sublimation separates camphor, which turns directly to vapour, from sand (R-2). A magnet separates iron filings from sulphur powder (S-3). The fully correct combination is **P-4, Q-1, R-2, S-3**.

49. Answer: (B) (ii)

The camel's hump, the bird's hollow bones and the snail's muscular foot are all correctly described. An **earthworm has no legs** at all — it moves by alternately lengthening and shortening its body using muscles and tiny bristles, so pair (ii) is incorrectly matched.

50. Answer: (B) Water is essential for a plant to stay firm and carry out its life processes

Since sunlight and air were the same for both plants and only water was withheld from plant Y, its drooping shows that **water is essential for a plant to stay firm and carry out its life processes**.