

Full Practice Exam — Set 3

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? 3, 6, 11, 18, 27, ____
 (A) 36 (B) 38
 (C) 40 (D) 42
- Find the **odd one out**: Ant, Bee, Spider, Butterfly
 (A) Spider (B) Bee
 (C) Ant (D) Butterfly
- What comes next in the letter series? AC, FH, KM, ____
 (A) PR (B) PQ
 (C) OR (D) PS
- In a certain code, GOLD is written as 7-15-12-4. How is SILK written in the same code?
 (A) 19-9-11-12 (B) 19-9-12-11
 (C) 18-9-12-11 (D) 19-8-12-11
- Ravi said, 'She is the daughter of my mother's only sister.' How is the girl related to Ravi?
 (A) Aunt (B) Sister
 (C) Niece (D) Cousin
- In a queue, Meera is 5th from the front and 9th from the back. How many children are there in the queue?
 (A) 12 (B) 14
 (C) 15 (D) 13
- A boy is facing north. He turns 90° clockwise, and then turns another 90° clockwise. Which direction is he facing now?
 (A) South (B) East
 (C) West (D) North

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



Fig. 3.1

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

9. Which of these words does **not** belong with the rest?

- (A) Solid
(B) Mixture
(C) Gas
(D) Liquid

10. If 15th August is a Saturday, what day of the week is 1st September of the same year (August has 31 days)?

- (A) Monday
(B) Wednesday
(C) Sunday
(D) Tuesday

Section 2 — Science

Q11–Q35 · 1 mark each

11. Rubbing a small amount of a food sample on a piece of paper leaves a translucent stain that does not disappear even after the paper dries. This shows the presence of _____ in the food.

- (A) Fat
(B) Protein
(C) Starch
(D) Water

12. Which component of our food adds bulk to the diet and helps prevent constipation, even though our body cannot digest it?

- (A) Vitamins
(B) Roughage
(C) Minerals
(D) Fat

13. A prolonged deficiency of vitamin A in the diet mainly causes _____.

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

14. The property of a material that allows electric current to pass through it easily is called its _____.

- (A) Electrical conductivity
(B) Malleability
(C) Ductility
(D) Lustre

15. A cook wants to remove small stones and husk from wheat flour using a mesh. Which method should be used?

- (A) Winnowing
(B) Sieving
(C) Decantation
(D) Sublimation

16. Muddy water is left undisturbed until the mud settles at the bottom, and then the clear water on top is carefully poured off into another container. This method is called _____.

- (A) Filtration
(B) Evaporation
(C) Decantation
(D) Sublimation

17. A few small stones mixed into a bowl of rice grains are best removed by _____.

- (A) Sublimation
(B) Winnowing
(C) Magnetic separation
(D) Handpicking

- 18.** A diet that provides the right amounts of carbohydrates, proteins, fats, vitamins, minerals, roughage and water needed by the body is called a _____ diet.
- (A) Balanced (B) Restricted
(C) Starch-only (D) Junk
- 19.** Solid ammonium chloride changes directly into vapour on heating, without turning into a liquid first. This process is called _____.
- (A) Evaporation (B) Sublimation
(C) Condensation (D) Dissolution
- 20.** Animals such as cows and dogs, which give birth to young ones directly instead of laying eggs, are called _____.
- (A) Oviparous (B) Nocturnal
(C) Viviparous (D) Herbivorous
- 21.** Every winter, birds such as the Siberian crane travel long distances from colder regions to warmer places. What is the main reason for this migration?
- (A) To change the colour of their feathers (B) To escape from other birds
(C) To learn to fly better (D) To find food and a suitable climate for breeding
- 22.** A snail's hard shell and an insect's tough outer body covering mainly help these animals to _____.
- (A) Protect and support their soft bodies (B) Absorb more sunlight
(C) Produce sound for communication (D) Swim faster in water
- 23.** The joints between the small bones of the backbone allow _____.
- (A) Full rotation like a wheel (B) A small amount of gliding movement, letting the back bend
(C) No movement at all (D) Movement in every direction, like the shoulder
- 24.** Which part of our skeleton is soft and flexible, unlike bone, and is found in places such as the nose and outer ear?
- (A) Rib (B) Skull
(C) Cartilage (D) Femur
- 25.** A potato tuber kept in moist soil sprouts new potato plants from its buds, without the use of seeds. This is an example of _____.
- (A) Germination (B) Pollination
(C) Fertilisation (D) Vegetative propagation
- 26.** The seeds of trees such as the maple have thin wing-like structures attached to them. These wings mainly help the seeds to _____.
- (A) Get carried away by the wind (B) Stick to the fur of passing animals
(C) Burst open explosively (D) Float on the surface of water
- 27.** Lotus leaves have a waxy, water-repellent surface and grow on long stalks. This mainly helps the plant to _____.
- (A) Survive long dry spells in a desert (B) Stay afloat and keep its leaves dry on the water's surface
(C) Store extra food underground (D) Climb up other plants for support

28. Which of these is **not** one of the major gases present in clean, dry air?
- (A) Nitrogen (B) Oxygen
(C) Hydrogen (D) Argon
29. The process by which water vapour in the air changes back into tiny droplets of water, forming clouds, is called ____.
- (A) Evaporation (B) Transpiration
(C) Precipitation (D) Condensation
30. Sorting household waste into separate wet (biodegradable) and dry (non-biodegradable) bins before disposal mainly helps to ____.
- (A) Allow proper composting and recycling (B) Make the garbage smell better
(C) Increase the total amount of waste produced (D) Attract more insects to the area
31. Objects such as the sun, a burning candle and an electric bulb, which give out light of their own, are called ____ objects.
- (A) Non-luminous (B) Luminous
(C) Opaque (D) Translucent
32. Light bouncing back after striking a polished surface, such as a mirror, is called ____.
- (A) Refraction (B) Diffusion
(C) Reflection (D) Absorption
33. Electric wires are usually covered with a layer of rubber or plastic mainly because these materials ____.
- (A) Are good conductors of electricity (B) Increase the flow of current
(C) Make the wire heavier (D) Do not allow electric current to pass through them
34. A thin sheet of oiled paper held in front of a lamp glows and lets some light pass through, but the shape of the flame cannot be seen clearly through it. Oiled paper is an example of a ____ material.
- (A) Translucent (B) Transparent
(C) Opaque (D) Luminous
35. Study the bar chart showing the approximate composition of air by volume. Which gas makes up the **second largest** portion of air?

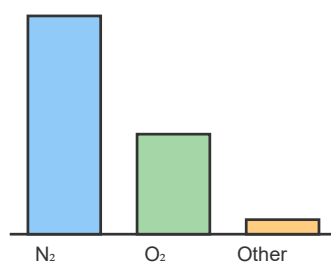


Fig. 3.2

- (A) Nitrogen (B) Oxygen
(C) Other gases (D) Argon

36. Study the table below, which classifies four waste items.

Item	Type	Bin
Vegetable peels	Biodegradable	Green
Plastic bottle	Biodegradable	Green
Broken glass	Non-biodegradable	Blue
Eggshells	Biodegradable	Green

- (A) Vegetable peels
(B) Broken glass
(C) Plastic bottle
(D) Eggshells
37. The thin coiled wire inside an electric bulb, which glows white-hot when current passes through it, is called the _____.
(A) Base
(B) Glass bulb
(C) Terminal
(D) Filament
38. In the circuit shown, two cells are connected one after another with a bulb, and the circuit is complete. Compared with using only one such cell, the bulb will _____.
(A) Glow brighter
(B) Glow dimmer
(C) Not light up at all
(D) Glow exactly the same

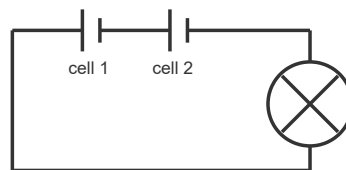


Fig. 3.3

- (A) Glow brighter
(B) Glow dimmer
(C) Not light up at all
(D) Glow exactly the same
39. Workers use a long sloping plank to roll heavy drums up onto a truck instead of lifting them straight up. This sloping plank is an example of a/an _____.
(A) Lever
(B) Inclined plane
(C) Wheel and axle
(D) Pulley
40. Collecting and storing rainwater that falls on rooftops, so that it can be used later instead of running off and being wasted, is called _____.
(A) Percolation
(B) Water pollution
(C) Rainwater harvesting
(D) Transpiration
41. A vertical pole casts a short shadow at noon, but the same pole casts a much longer shadow in the evening. What is the main reason for this?
(A) The pole becomes taller in the evening
(B) Light bends more in the evening
(C) The pole moves to a new position
(D) The angle at which sunlight falls changes through the day
42. After a pollen grain lands on the stigma and grows a tube down to the ovary, the fusion of the male and female reproductive cells that follows is called _____.
(A) Fertilisation
(B) Pollination
(C) Germination
(D) Transpiration

43. A bird's smooth, streamlined body and its feathers mainly help it to _____.
 (A) Store food for the winter (B) Move easily through the air during flight
 (C) Stay warm while swimming underwater (D) Dig burrows in the soil
44. Repairing an old wooden chair and continuing to use it, instead of throwing it away and buying a new one, is best described as _____.
 (A) Recycling the chair (B) Composting the chair
 (C) Reusing the chair (D) Sending the chair to a landfill
45. In an onion bulb, the food reserves of the plant are mainly stored in swollen, fleshy _____.
 (A) Roots (B) Stems
 (C) Flowers (D) Leaves

Achievers Section

Q46–Q50 · 3 marks each

46. Consider the following statements.
 (i) All plants make their own food using sunlight, water and carbon dioxide.
 (ii) Any solid dissolved in water can be recovered unchanged by filtration.
 (iii) Coal and petroleum are examples of non-renewable sources of energy.
 Which of the statements is/are correct?
 (A) (i) and (ii) only (B) (i) and (iii) only
 (C) (iii) only (D) All three
47. Assertion (A): Wearing white or light-coloured clothes in summer keeps us cooler than wearing dark-coloured clothes.
 Reason (R): Light colours absorb more heat from sunlight than dark colours.
 (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 List I (method) with List II (use) and choose the combination in which all four pairs are correct.
 List I: (P) Winnowing (Q) Handpicking (R) Sieving (S) Decantation
 List II: (1) Pouring off brewed tea after the tea leaves have settled (2) Removing husk from grain using wind (3) Removing a few stones from a bowl of pulses (4) Separating fine flour from coarser bran using a mesh
 (A) P-2, Q-3, R-4, S-1 (B) P-2, Q-4, R-3, S-1
 (C) P-1, Q-3, R-4, S-2 (D) P-2, Q-3, R-1, S-4
49. Read the following pairs about animals.
 (i) Bird — hollow, light bones that make flight easier
 (ii) Fish — gills that take in oxygen dissolved in water
 (iii) Frog — can breathe only through its lungs, both on land and in water
 (iv) Housefly — three pairs of jointed legs, typical of insects
 Which pair is incorrectly matched?
 (A) (i) (B) (ii)
 (C) (iii) (D) (iv)

50. Two identical bean seeds are planted in similar pots with the same soil and are watered equally every day. Pot X is kept inside a dark cupboard, while pot Y is kept on a sunny windowsill. After two weeks, the seedling in pot X is pale yellow and weak, while the seedling in pot Y is green and healthy. What does this experiment mainly show?

- (A) Water is not needed for seed germination
- (B) Sunlight is necessary for a seedling to develop healthy green colour and strength
- (C) Darkness helps seedlings grow stronger
- (D) Seeds cannot germinate at all without soil

Answer Key

1	B	2	A	3	A	4	B	5	D
6	D	7	A	8	C	9	B	10	D
11	A	12	B	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	C	47	C	48	A	49	C	50	B

Solutions

1. Answer: (B) 38

The differences between consecutive terms are 3, 5, 7, 9, increasing by 2 each time. The next difference is 11, so the next term is $27 + 11 = 38$.

2. Answer: (A) Spider

Ant, bee and butterfly are insects with six legs. A **spider** is an arachnid with eight legs, so it is the odd one out.

3. Answer: (A) PR

The first letter advances by 5 each time: A, F, K, **P**. The second letter also advances by 5 each time: C, H, M, **R**. So the next pair is **PR**.

4. Answer: (B) 19-9-12-11

Each letter is replaced by its position in the alphabet: S=19, I=9, L=12, K=11, giving **19-9-12-11**.

5. Answer: (D) Cousin

Ravi's mother's only sister is Ravi's aunt. The daughter of that aunt is Ravi's **cousin**.

6. Answer: (D) 13

Meera is counted once in both positions, so she must not be counted twice.

Total = $5 + 9 - 1 = 13$ children.

7. Answer: (A) South

From north, one 90° clockwise turn faces east. A second 90° clockwise turn from east faces **south**.

8. Answer: (C) 6

There are 3 single-column rectangles, 2 rectangles formed by joining two adjacent columns, and 1 rectangle formed by the whole outline.

$3 + 2 + 1 = 6$ rectangles in all.

9. Answer: (B) Mixture

Solid, liquid and gas are the three states of matter. A **mixture** is not a state of matter — it is matter made of two or more substances — so it does not belong with the rest.

10. Answer: (D) Tuesday

From 15th August to 1st September is 17 days later. $17 = 2 \times 7 + 3$, so it is 3 days after Saturday: Sunday, Monday, **Tuesday**.

11. Answer: (A) Fat

A translucent stain that stays on paper even after drying is the standard test for **fat** in a food sample.

12. Answer: (B) Roughage

Roughage (dietary fibre) is not digested but adds bulk that helps move waste through the intestine, preventing constipation.

13. Answer: (D) Night blindness

A lack of vitamin A affects the eyes and causes **night blindness**, making it hard to see in dim light.

14. Answer: (A) Electrical conductivity

Electrical conductivity describes how easily current passes through a material; most metals have high electrical conductivity.

15. Answer: (B) Sieving

Passing the flour through a mesh traps the larger stones while the fine flour passes through — this is **sieving**.

16. Answer: (C) Decantation

Pouring off the clear liquid from above a settled solid without disturbing it is called **decantation**.

17. Answer: (D) Handpicking

Since only a few stones are present and they look different from the grains, they can simply be picked out by hand — this is **handpicking**.

18. Answer: (A) Balanced

A **balanced** diet contains all the nutrients the body needs in the right proportions.

19. Answer: (B) Sublimation

A solid changing directly into vapour, without passing through the liquid state, is called **sublimation**.

20. Answer: (C) Viviparous

Animals that give birth to young ones directly are called **viviparous** animals.

21. Answer: (D) To find food and a suitable climate for breeding

Birds migrate mainly **to find enough food and a suitable climate for breeding**, since their original home becomes too cold and food becomes scarce.

22. Answer: (A) Protect and support their soft bodies

The hard covering acts like an external skeleton that **protects and supports the soft body** inside it.

23. Answer: (B) A small amount of gliding movement, letting the back bend

The bones of the backbone are joined by joints that allow only **a small amount of gliding movement**; together, many such small movements let the back bend.

24. Answer: (C) Cartilage

Cartilage is a softer, more flexible tissue than bone, found in the nose, outer ear and other flexible parts of the body.

25. Answer: (D) Vegetative propagation

Growing a new plant from a part of the parent plant, such as a tuber, rather than from a seed, is called **vegetative propagation**.

26. Answer: (A) Get carried away by the wind

The wing-like structures let the seed spin and glide, so it can be **carried away by the wind** to a new spot.

27. Answer: (B) Stay afloat and keep its leaves dry on the water's surface

The waxy coating stops water from wetting the leaf, so the lotus leaf **stays afloat and dry on the surface of the pond**.

28. Answer: (C) Hydrogen

Clean, dry air is mostly nitrogen and oxygen, with a small amount of argon and other gases. **Hydrogen** is not a major component of air.

29. Answer: (D) Condensation

Water vapour cooling and changing into tiny water droplets is called **condensation**; this is how clouds form.

30. Answer: (A) Allow proper composting and recycling

Keeping biodegradable and non-biodegradable waste separate makes it easier to **compost the wet waste and recycle the dry waste** properly.

31. Answer: (B) Luminous

Objects that produce and give out their own light are called **luminous** objects.

32. Answer: (C) Reflection

Light bouncing back off a surface is called **reflection**; a mirror reflects light very well because it is smooth and polished.

33. Answer: (D) Do not allow electric current to pass through them

Rubber and plastic are **insulators that do not allow current to pass through them**, which keeps users safe from electric shocks.

34. Answer: (A) Translucent

A material that lets only some light pass through, without giving a clear view of what is behind it, is called **translucent**.

35. Answer: (B) Oxygen

The bar chart shows nitrogen with the tallest bar, the next tallest bar for oxygen, and the shortest bar for the remaining gases. So **oxygen** makes up the second largest portion of air.

36. Answer: (C) Plastic bottle

Vegetable peels, broken glass and eggshells are correctly classified. A **plastic bottle** does not decompose naturally and is **non-biodegradable**, so it belongs in the blue (dry waste) bin, not the green bin — the plastic bottle row is incorrectly matched.

37. Answer: (D) Filament

The thin coiled wire that glows is called the **filament**; it is usually made of tungsten, which can withstand very high temperatures.

38. Answer: (A) Glow brighter

Connecting two cells one after another pushes more current through the circuit than a single cell, so the bulb **glows brighter**.

39. Answer: (B) Inclined plane

A sloping surface used to raise a load gradually is a simple machine called an **inclined plane**; it makes the work easier by spreading it over a longer distance.

40. Answer: (C) Rainwater harvesting

Rainwater harvesting is the collection and storage of rainwater for later use, helping to conserve water.

41. Answer: (D) The angle at which sunlight falls changes through the day

As the sun's position in the sky changes through the day, **the angle at which its light falls on the pole changes**, which changes the length of the shadow, even though the pole itself does not change.

42. Answer: (A) Fertilisation

The fusion of the male reproductive cell from the pollen with the female reproductive cell in the ovary is called **fertilisation**; it happens after pollination.

43. Answer: (B) Move easily through the air during flight

The streamlined shape and feathers reduce resistance from the air, helping the bird to **move easily through the air during flight**.

44. Answer: (C) Reusing the chair

Using an item again, in the same form, after repair is called **reusing** it — this is different from recycling, which breaks material down to make something new.

45. Answer: (D) Leaves

An onion bulb is made of thick, overlapping **leaves** that store food, wrapped around a short stem — even though it grows underground, it is not a root.

46. Answer: (C) (iii) only

Statement (i) is not true of every plant — some plants, such as *Cuscuta*, lack chlorophyll and cannot make their own food, so they depend on other plants. Statement (ii) is false, since evaporation, not filtration, is needed to recover a dissolved solid from its solution. Statement (iii) is correct, since coal and petroleum took millions of years to form and cannot be quickly replaced. Hence only **(iii)** is correct.

47. Answer: (C) A is true, but R is false

Wearing light-coloured clothes does keep us cooler in summer, because light colours **reflect** most of the heat falling on them rather than absorbing it. The reason given states the opposite of what actually happens, so the reason is false even though the assertion is true.

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

Winnowing uses wind to blow away the lighter husk from grain (P-2). Handpicking removes a few stones from pulses by hand (Q-3). Sieving separates fine flour from coarser bran using a mesh (R-4). Decantation is pouring off a settled liquid, as when separating brewed tea from the settled tea leaves (S-1). The fully correct combination is **P-2, Q-3, R-4, S-1**.

49. Answer: (C) (iii)

Bird bones being hollow, fish using gills, and the housefly having three pairs of legs are all correctly described. A **frog** is an amphibian that breathes not only through its lungs but also through its moist skin, especially underwater, so pair (iii) is incorrectly matched.

50. Answer: (B) Sunlight is necessary for a seedling to develop healthy green colour and strength

Since both pots received the same soil and water and only light differed, the pale, weak seedling grown in the dark shows that **sunlight is necessary for a seedling to turn green and grow strong**.