

Full Practice Exam — Set 1

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? 1, 4, 9, 16, 25, ____
 (A) 30 (B) 34
 (C) 36 (D) 49
- Find the **odd one out**: Whale, Dolphin, Shark, Turtle
 (A) Whale (B) Dolphin
 (C) Turtle (D) Shark
- What comes next in the letter series? AZ, BY, CX, ____
 (A) DW (B) DV
 (C) EW (D) DX
- In a certain code, FISH is written as 6-9-19-8. How is BIRD written in the same code?
 (A) 2-9-17-4 (B) 2-8-18-4
 (C) 2-9-18-4 (D) 2-9-18-5
- Pointing to a boy, a woman said, 'His mother is the only daughter of my father.' How is the woman related to the boy?
 (A) Grandmother (B) Sister
 (C) Aunt (D) Mother
- In a class, Ravi is 7th from the top and 12th from the bottom in a list of marks. How many students are there in the class?
 (A) 17 (B) 18
 (C) 19 (D) 20
- A girl is facing east. She turns 90° anticlockwise. Which direction is she facing now?
 (A) North (B) South
 (C) West (D) East

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

- (A) Herbivore (B) Carnivore
(C) Habitat (D) Omnivore

9. How many **squares** of any size are there in the figure below?



Fig. 8.1

- (A) 4 (B) 5
(C) 8 (D) 9

10. If today is Wednesday, what day will it be after 17 days?

- (A) Friday (B) Monday
(C) Sunday (D) Saturday

Section 2 — Science

Q11–Q35 · 1 mark each

11. Carbohydrates and fats are together called _____ foods.

- (A) Energy-giving (B) Body-building
(C) Protective (D) Roughage

12. Which test is used to show the presence of **starch** in a food sample?

- (A) A grease spot appears on paper (B) Copper sulphate and caustic soda turn violet
(C) Iodine solution turns blue-black (D) Lime water turns milky

13. A deficiency of vitamin B₁ causes the disease _____.

- (A) Scurvy (B) Goitre
(C) Rickets (D) Beriberi

14. The property by which a metal can be beaten into thin sheets is called _____.

- (A) Malleability (B) Ductility
(C) Solubility (D) Lustre

15. The method used to separate grain from stalks by beating is called _____.

- (A) Winnowing (B) Sieving
(C) Threshing (D) Handpicking

16. Which of these is a **chemical** change?

- (A) Melting of ice (B) Dissolving sugar in water
(C) Breaking of a glass (D) Rusting of iron

17. Which of these substances is **insoluble** in water?

- (A) Chalk powder (B) Common salt
(C) Sugar (D) Vinegar

18. The arrangement of veins in a leaf blade is called _____.

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

19. The loss of water as vapour from the surface of a leaf is called _____.
(A) Respiration (B) Photosynthesis
(C) Transpiration (D) Condensation
20. The female reproductive part of a flower is the _____.
(A) Stamen (B) Sepal
(C) Petal (D) Pistil
21. The surroundings in which an organism lives is called its _____.
(A) Habitat (B) Adaptation
(C) Population (D) Community
22. Which joint allows movement in only one plane, like the hinge of a door?
(A) Ball and socket (B) Hinge
(C) Pivot (D) Fixed
23. Earthworms move with the help of _____.
(A) Legs (B) Fins
(C) Muscles and tiny bristles called setae (D) Wings
24. The SI unit of length is the _____.
(A) Centimetre (B) Millimetre
(C) Kilometre (D) Metre
25. The motion of a child on a swing is an example of _____ motion.
(A) Periodic (B) Circular
(C) Rectilinear (D) Random
26. Light travels _____.
(A) In curved paths (B) In straight lines
(C) Only through water (D) In zig-zags
27. A shadow is formed when light is blocked by a/an _____ object.
(A) Transparent (B) Translucent
(C) Opaque (D) Luminous
28. An electric circuit is said to be **closed** when _____.
(A) There is a gap in the path (B) The bulb is fused
(C) The cell is removed (D) The path is complete and current can flow
29. Which of these is a good **conductor** of electricity?
(A) Copper (B) Rubber
(C) Glass (D) Dry wood
30. A freely suspended bar magnet always comes to rest pointing _____.
(A) East-west (B) North-south
(C) Up-down (D) In a random direction
31. Like poles of two magnets _____ each other.
(A) Attract (B) Have no effect on
(C) Repel (D) Melt

32. Which gas makes up about 78% of the air?

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

33. Which of these methods of preserving food works by removing water from it?

- (A) Drying
- (B) Freezing
- (C) Canning
- (D) Adding sugar

34. Which of these is a natural manure rather than a chemical fertiliser?

- (A) Urea
- (B) Compost
- (C) Ammonium sulphate
- (D) Superphosphate

35. Roughly what percentage of the earth's water is fresh water fit for use?

- (A) About 50%
- (B) About 25%
- (C) Less than 3%
- (D) About 71%

Section 2 — Science (contd.)

Q36–Q45 · 1 mark each

36. A plant with a weak stem that spreads along the ground is called a _____.

- (A) Climber
- (B) Tree
- (C) Shrub
- (D) Creeper

37. Which tissue carries water and minerals from the roots to the leaves?

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

38. Which of these is **not** attracted by a magnet?

- (A) Iron
- (B) Aluminium
- (C) Cobalt
- (D) Nickel

39. A single fixed pulley is useful mainly because it _____.

- (A) Makes the bucket lighter
- (B) Removes the need for any force
- (C) Lets you pull downwards instead of lifting upwards
- (D) Doubles the water lifted

40. The image formed by a plane mirror is _____.

- (A) Real and inverted
- (B) Virtual and smaller
- (C) Real and larger
- (D) Virtual and of the same size

41. A pinhole camera forms an image that is _____.

- (A) Inverted and real
- (B) Erect and enlarged
- (C) Erect and virtual
- (D) Always the same size as the object

42. A magnet is brought near a heap of iron nails, plastic buttons and wooden beads. What happens?

- (A) All three are attracted
- (B) Only the iron nails are attracted
- (C) Only the plastic buttons are attracted
- (D) Nothing is attracted

43. A snake has no legs, yet it moves quickly. How?

- (A) It rolls along the ground
- (B) Its body curves into loops and its muscles push against the ground
- (C) It uses its tongue to pull itself
- (D) It floats on air

44. Which of these correctly matches a habitat with an adaptation?

- (A) Pond — thick fur
- (B) Polar region — broad flat leaves
- (C) Desert — long roots and reduced leaves
- (D) Mountain — gills

45. Which of these best describes fermentation?

- (A) Water changing into vapour
- (B) Plants making food using sunlight
- (C) Metal reacting with oxygen
- (D) Yeast breaking down sugar without oxygen, producing alcohol and carbon dioxide

Achievers Section

Q46–Q50 · 3 marks each

46. Consider the following statements.

- (i) A magnet attracts all metals.
- (ii) The earth behaves like a giant magnet.
- (iii) Air exerts pressure in all directions.

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. A student is given a mixture of iron filings, sand and common salt. Which sequence would separate all three?

- (A) Magnet → add water and filter → evaporate the filtrate
- (B) Add water and filter → magnet → sublimation
- (C) Evaporate → magnet → winnowing
- (D) Winnowing → filtration → magnet

48. A leafy shoot is kept in a test tube of water with a layer of oil on the surface, and the whole set-up is weighed each day. The mass steadily falls. What does the layer of oil ensure?

- (A) That water is lost only through the shoot and not by evaporation from the tube
- (B) That the shoot cannot photosynthesise
- (C) That the water stays warm
- (D) That the shoot cannot respire

49. Two identical iron nails are left out for a week: nail X in a dish of ordinary tap water open to the air, and nail Y in a stoppered tube of dry air with a drying agent. Which nail rusts?

- (A) Both rust
- (B) Only X rusts, showing that both water and air are needed
- (C) Only Y rusts
- (D) Neither rusts

50. Fish and whales both live in the sea and look broadly similar in shape. Yet a whale must surface regularly while a fish need not. Why?

- (A) The whale is heavier
- (B) A whale breathes air with lungs, while a fish takes dissolved oxygen through gills
- (C) The whale cannot swim deep
- (D) A fish does not need oxygen

Answer Key

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

Solutions

1. Answer: (C) 36

Each number is a whole number multiplied by itself: $1 \times 1, 2 \times 2, 3 \times 3, 4 \times 4, 5 \times 5$. Next is $6 \times 6 = 36$.

2. Answer: (D) Shark

Whale, dolphin and turtle all breathe air using lungs and must surface. A **shark** is a fish that breathes through gills, so it is the odd one out.

3. Answer: (A) DW

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

4. Answer: (C) 2-9-18-4

Each letter is replaced by its position in the alphabet: B=2, I=9, R=18, D=4, giving **2-9-18-4**.

5. Answer: (D) Mother

The woman herself is a child of her father. If she is his **only** daughter, then 'the only daughter of my father' can only mean the woman herself. So the boy's mother is the woman — the woman is his **mother**.

6. Answer: (B) 18

Ravi is counted in both positions, so he must not be counted twice.

Total = $7 + 12 - 1 = 18$ students.

7. Answer: (A) North

Anticlockwise from east goes towards **north**.

8. Answer: (C) Habitat

Herbivore, carnivore and omnivore all describe what an animal eats. **Habitat** describes where it lives, so it does not belong with the rest.

9. Answer: (B) 5

There are 4 small squares, and the whole outline is itself a large square.

$4 + 1 = 5$ squares in all.

10. Answer: (D) Saturday

$17 = 2 \times 7 + 3$, so 2 full weeks plus 3 more days from Wednesday: Thursday, Friday, **Saturday**.

11. Answer: (A) Energy-giving

Carbohydrates and fats release energy when broken down, so they are **energy-giving** foods.

12. Answer: (C) Iodine solution turns blue-black

Iodine solution turns blue-black wherever starch is present.

13. Answer: (D) Beriberi

A shortage of vitamin B₁ causes **beriberi**.

14. Answer: (A) Malleability

Malleability is the property of being beaten into sheets.

15. Answer: (C) Threshing

Threshing separates grain from stalks by beating.

16. Answer: (D) Rusting of iron

In **rusting**, iron combines with oxygen and moisture to form a new substance, which cannot be easily reversed.

17. Answer: (A) Chalk powder

Chalk powder does not dissolve — it stays suspended or settles.

18. **Answer: (B)** Venation

Venation is the pattern of veins in a leaf.

19. **Answer: (C)** Transpiration

Transpiration is the escape of water vapour, mainly through the stomata.

20. **Answer: (D)** Pistil

The **pistil** is the female part, with stigma, style and ovary.

21. **Answer: (A)** Habitat

A **habitat** is the place where an organism lives and finds food, water and shelter.

22. **Answer: (B)** Hinge

A **hinge** joint bends and straightens in one plane only.

23. **Answer: (C)** Muscles and tiny bristles called setae

An earthworm moves by alternately lengthening and shortening its body with **muscles**, gripping the soil with tiny bristles called **setae**.

24. **Answer: (D)** Metre

The SI unit of length is the **metre**.

25. **Answer: (A)** Periodic

A swing repeats the same to-and-fro movement, which is **periodic** motion.

26. **Answer: (B)** In straight lines

Light travels **in straight lines**.

27. **Answer: (C)** Opaque

An **opaque** object stops light completely, forming a shadow behind it.

28. **Answer: (D)** The path is complete and current can flow

A circuit is closed when **the path is complete and current can flow**.

29. **Answer: (A)** Copper

Copper is a metal and lets current pass easily.

30. **Answer: (B)** North-south

A freely suspended magnet points **north-south**, because the earth behaves like a huge magnet.

31. **Answer: (C)** Repel

Like poles **repel**; unlike poles attract.

32. **Answer: (D)** Nitrogen

Air is about 78% **nitrogen**.

33. **Answer: (A)** Drying

Drying removes the water microbes need to grow.

34. **Answer: (B)** Compost

Compost is made from decayed plant and animal waste.

35. **Answer: (C)** Less than 3%

About 97% of the earth's water is salty, so **less than 3%** is fresh.

36. **Answer: (D)** Creeper

A **creeper** has a weak stem that spreads along the ground.

37. **Answer: (A)** Xylem

Xylem carries water and minerals upward from the roots.

38. Answer: (B) Aluminium

Aluminium is a metal but is not attracted by a magnet.

39. Answer: (C) Lets you pull downwards instead of lifting upwards

A single fixed pulley changes only the **direction** of the effort.

40. Answer: (D) Virtual and of the same size

A plane mirror forms a **virtual image of the same size** as the object.

41. Answer: (A) Inverted and real

Light travels in straight lines, so the pinhole camera forms an **inverted, real** image.

42. Answer: (B) Only the iron nails are attracted

Only magnetic materials are attracted, so **only the iron nails** stick to the magnet.

43. Answer: (B) Its body curves into loops and its muscles push against the ground

The body curves into loops and the muscles push those loops against the ground, driving the snake forward.

44. Answer: (C) Desert — long roots and reduced leaves

Desert plants have **long roots and reduced leaves** to find and conserve water.

45. Answer: (D) Yeast breaking down sugar without oxygen, producing alcohol and carbon dioxide

Fermentation is **yeast breaking down sugar without oxygen, producing alcohol and carbon dioxide**.

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

Statement (i) is false — only iron, nickel, cobalt and their alloys are attracted. Statements (ii) and (iii) are true. Hence **(ii) and (iii)**.

47. Answer: (A) Magnet → add water and filter → evaporate the filtrate

First use a **magnet** to remove the iron filings. Then **add water and filter** to remove the sand. Finally **evaporate the filtrate** to recover the salt.

48. Answer: (A) That water is lost only through the shoot and not by evaporation from the tube

The oil seals the open water surface, so **any loss of mass must be water taken up and transpired by the shoot itself**.

49. Answer: (B) Only X rusts, showing that both water and air are needed

Nail X has both water and air, so it rusts. Nail Y lacks moisture, so it stays bright. **Only X rusts, showing that both water and air are needed** for rusting.

50. Answer: (B) A whale breathes air with lungs, while a fish takes dissolved oxygen through gills

A whale is a mammal that breathes air with **lungs**, so it must surface, whereas a fish takes dissolved oxygen through **gills** and can stay under.