

Full Practice Exam — Set 1

Science · Class 4 · Full Syllabus Practice Exam

TIME 60 minutes	QUESTIONS 35	TOTAL MARKS 40	MAX. SCORE ___ / 40
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **35 questions** in this paper. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–30 carry **1 mark** each. Questions 31–35 (Achievers Section) carry **2 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? 2, 6, 12, 20, ____
 (A) 26 (B) 28
 (C) 30 (D) 32
- Find the **odd one out**: 16, 25, 36, 40
 (A) 16 (B) 25
 (C) 36 (D) 40
- What comes next in the letter series? Z, X, V, T, ____
 (A) S (B) R
 (C) Q (D) P
- Study the pattern in the top row. Which of the figures P, Q, R or S should come in place of the question mark?

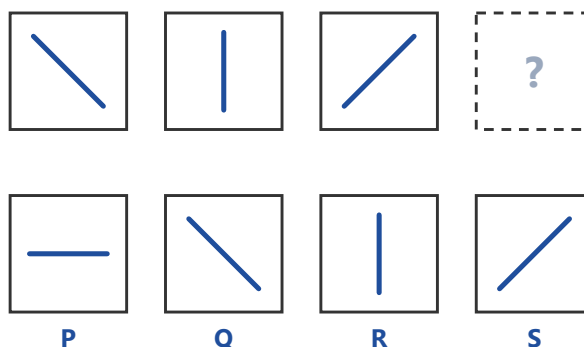


Fig. 4.1 — The line turns by the same amount each time

- (A) P (B) Q
 (C) R (D) S
- In a certain code, RED is written as 18-5-4. How is SUN written in the same code?
 (A) 19-21-14 (B) 19-20-14
 (C) 18-21-14 (D) 19-21-13

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



Fig. 6.1

- (A) 4 (B) 5
(C) 8 (D) 9
7. 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
8. A girl is facing east. She turns 90° anticlockwise. Which direction is she facing now?
- (A) West (B) South
(C) North (D) East
9. Bird : Nest :: Bee : ____
- (A) Hive (B) Web
(C) Burrow (D) Stable
10. If today is Wednesday, what day will it be after 10 days?
- (A) Friday (B) Sunday
(C) Saturday (D) Monday

Section 2 — Science

Q11–Q30 · 1 mark each

11. Which part of a plant makes food by photosynthesis?
- (A) Root (B) Stem
(C) Flower (D) Leaf
12. The figure shows the vertical section of a flower. Which labelled part will grow into the **fruit**?

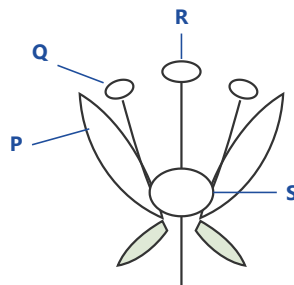


Fig. 12.1 — Vertical section of a flower

- (A) P (B) Q
(C) R (D) S
13. The seeds of a drumstick have thin, papery wings. They are most likely carried away by ____.
- (A) Wind (B) Water
(C) Animals (D) Bursting of the pod

14. Which of these animals is an **amphibian**?

(A) Whale

(B) Crocodile

(C) Frog

(D) Penguin

15. In the life cycle of a butterfly, the stage that rests inside a hard case without feeding is the _____.

(A) Egg

(B) Larva

(C) Adult

(D) Pupa

16. The hump of a camel mainly stores _____.

(A) Fat

(B) Water

(C) Blood

(D) Air

17. Study the food chain below. Which organism is the **producer**?



The arrows show the direction in which food energy flows.

Fig. 17.1 — A grassland food chain

(A) Frog

(B) Grasshopper

(C) Grass

(D) Snake

18. How many bones are there in the body of a normal adult human being?

(A) 106

(B) 206

(C) 306

(D) 406

19. Which teeth are used mainly for **tearing** food?

(A) Incisors

(B) Molars

(C) Premolars

(D) Canines

20. Most of the digested food is absorbed into the blood in the _____.

(A) Small intestine

(B) Stomach

(C) Large intestine

(D) Food pipe

21. A person who cannot see well in dim light is most likely short of _____.

(A) Vitamin D

(B) Vitamin C

(C) Vitamin A

(D) Calcium

22. Which of these is a **body-building** food?

(A) Sugar

(B) Butter

(C) Rice

(D) Pulses

23. A few drops of iodine solution are put on a slice of raw potato and it turns blue-black. This shows that potato contains _____.

(A) Starch

(B) Protein

(C) Fat

(D) Vitamin C

24. Which state of matter has a definite **volume** but takes the shape of its container?

(A) Solid

(B) Liquid

(C) Gas

(D) None of these

25. The force that opposes motion between two surfaces in contact is called _____.
(A) Gravity (B) Friction
(C) Magnetism (D) Muscular force
26. Which of these is the best **conductor** of heat?
(A) Wood (B) Plastic
(C) Copper (D) Rubber
27. A single fixed pulley at the top of a well is useful mainly because it _____.
(A) Makes the bucket lighter (B) Doubles the water lifted
(C) Removes the need for any force (D) Lets you pull downwards instead of lifting upwards
28. Which planet is nearest to the sun?
(A) Mercury (B) Venus
(C) Earth (D) Mars
29. Day and night are caused by the _____ of the earth.
(A) Revolution (B) Rotation
(C) Tilt (D) Size
30. Which of these waste materials is **biodegradable**?
(A) Plastic bottle (B) Glass jar
(C) Vegetable peels (D) Aluminium foil

Achievers Section

Q31–Q35 · 2 marks each

31. Consider the following statements.
(i) All animals that live in water breathe through gills.
(ii) Plants respire both during the day and at night.
(iii) The moon has no light of its own.
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
32. A leaf on a healthy potted plant is partly covered with black paper. The plant is left in bright sunlight all day, and the leaf is then tested with iodine. The covered strip stays pale while the rest turns blue-black. What does this prove?
(A) Chlorophyll is not needed to make starch (B) Starch is made only in the veins of a leaf
(C) Carbon dioxide is not needed to make starch (D) Sunlight is necessary for a leaf to make starch
33. In the food chain **grass** → **grasshopper** → **frog** → **snake**, what is most likely to happen if all the frogs are removed?
(A) The number of grasshoppers will rise (B) The number of grasshoppers will fall
(C) The grass will disappear at once (D) The snakes will begin to eat grass
34. During a storm we see the flash of lightning several seconds before we hear the thunder, even though both are produced at the same instant. Why?
(A) Lightning is produced first (B) Light travels much faster than sound
(C) Sound is blocked by clouds (D) Our eyes work faster than our ears

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

Column I	Column II
(P) Fish	(1) Traps insects to obtain nitrogen
(Q) Pitcher plant	(2) Streamlined body and gills
(R) Polar bear	(3) Long sticky tongue to catch insects
(S) Frog	(4) Thick fur and a layer of fat

Table 35.1

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

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

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

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

Answer Key

1	C	2	D	3	B	4	A	5	A
6	B	7	B	8	C	9	A	10	C
11	D	12	D	13	A	14	C	15	D
16	A	17	C	18	B	19	D	20	A
21	C	22	D	23	A	24	B	25	B
26	C	27	D	28	A	29	B	30	C
31	B	32	D	33	A	34	B	35	C

Solutions

1. Answer: (C) 30

Look at the gaps: 2 to 6 is +4, 6 to 12 is +6, 12 to 20 is +8. The gaps grow by 2 each time, so the next gap is +10.
 $20 + 10 = 30$.

2. Answer: (D) 40

$16 = 4 \times 4$, $25 = 5 \times 5$ and $36 = 6 \times 6$ — each is a number multiplied by itself. **40** cannot be written this way, so it is the odd one out.

3. Answer: (B) R

The letters go backwards, skipping one each time: Z, (Y), X, (W), V, (U), T, (S), **R**.

4. Answer: (A) P

The line turns anticlockwise by 45° each step: first slanting one way, then upright, then slanting the other way. The next turn of 45° makes it **horizontal**, which is figure **P**.

5. Answer: (A) 19-21-14

Each letter is replaced by its position in the alphabet: R = 18, E = 5, D = 4.
So S = 19, U = 21 and N = 14, giving **19-21-14**.

6. Answer: (B) 5

There are 4 small squares, and the whole outline is itself a large square.
 $4 + 1 = 5$ squares in all. It is easy to forget to count the big one.

7. Answer: (B) 18

Ravi is counted in both positions, so he must not be counted twice.
Total = $7 + 12 - 1 = 18$ students.

8. Answer: (C) North

Anticlockwise from east goes towards north. So after a 90° anticlockwise turn she faces **north**.

9. Answer: (A) Hive

A bird lives in a nest, so the second word is the home of the first creature. A bee lives in a **hive**. A web is a spider's home and a burrow is a rabbit's.

10. Answer: (C) Saturday

Every 7 days brings the same weekday round again, so after 7 days it is Wednesday once more.
 $10 - 7 = 3$ more days: Thursday, Friday, **Saturday**.

11. Answer: (D) Leaf

The **leaf** contains chlorophyll, which traps sunlight. Using sunlight, carbon dioxide and water, the leaf makes food for the whole plant.

12. Answer: (D) S

S labels the ovary at the base of the flower. After fertilisation the ovary swells and ripens into the fruit, while the ovules inside it become the seeds. P is a petal, Q is an anther and R is the stigma.

13. Answer: (A) Wind

Thin papery wings act like tiny sails, so even a light breeze lifts the seed and carries it far from the parent plant. This is dispersal by **wind**.

14. Answer: (C) Frog

An amphibian can live both in water and on land. A **frog** begins life in water as a tadpole and later lives on land as an adult. Whales are mammals, crocodiles are reptiles and penguins are birds.

15. Answer: (D) Pupa

The order is egg → larva (caterpillar) → **pupa** → adult butterfly. During the pupa stage the insect stays inside a hard case and does not eat while its body is rebuilt.

16. Answer: (A) Fat

The hump stores **fat**, not water. When food and water are scarce, the fat is broken down to release energy and a little water, so the camel can survive for many days.

17. Answer: (C) Grass

A producer makes its own food instead of eating something else. Every food chain begins with a green plant, so the producer here is the **grass**. The grasshopper, frog and snake are all consumers.

18. Answer: (B) 206

An adult skeleton has **206** bones. A newborn baby has about 300, but many of them fuse together as the child grows.

19. Answer: (D) Canines

Canines are the pointed teeth beside the front teeth and are used for tearing. Incisors cut, while premolars and molars grind.

20. Answer: (A) Small intestine

The **small intestine** is a long coiled tube where digestion is completed and the digested food passes into the blood. The large intestine mainly absorbs water.

21. Answer: (C) Vitamin A

Difficulty in seeing in dim light is called night blindness, and it is caused by a shortage of **vitamin A**. Carrots, papaya, mango and green leafy vegetables are rich in it.

22. Answer: (D) Pulses

Pulses are rich in protein, which builds new cells and repairs worn-out parts of the body. Sugar and rice give energy and butter is mostly fat.

23. Answer: (A) Starch

Iodine solution is the standard test for **starch** — it changes from brown to blue-black wherever starch is present.

24. Answer: (B) Liquid

A **liquid** keeps its own volume but flows to take the shape of whatever holds it. A solid keeps both shape and volume, and a gas keeps neither.

25. Answer: (B) Friction

Friction acts between two touching surfaces and always opposes the direction of motion. It is what finally brings a rolling ball to rest.

26. Answer: (C) Copper

Metals let heat pass through easily, and **copper** is one of the best conductors. Wood, plastic and rubber are insulators, which is why pan handles are made of them.

27. Answer: (D) Lets you pull downwards instead of lifting upwards

A single fixed pulley changes only the **direction** of the effort — you pull down, which is easier because you can use your own weight, while the bucket goes up. The force needed is still equal to the weight of the bucket.

28. Answer: (A) Mercury

Mercury is the closest planet to the sun and also the smallest. Being so near, it completes one trip round the sun in only about 88 earth days.

29. Answer: (B) Rotation

As the earth spins on its axis — its **rotation** — the half facing the sun has day and the half turned away has night. One full spin takes about 24 hours.

30. Answer: (C) Vegetable peels

Biodegradable waste is broken down naturally by bacteria and fungi. **Vegetable peels** rot away within weeks. Plastic, glass and aluminium do not rot and may last for hundreds of years.

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

Statement (i) is false — whales, dolphins and turtles live in water but breathe air with lungs. Statement (ii) is true; respiration never stops, though during the day photosynthesis masks it. Statement (iii) is true; the moon only reflects sunlight. Hence **(ii) and (iii)**.

32. Answer: (D) Sunlight is necessary for a leaf to make starch

Iodine turns blue-black wherever starch is present. Both parts of the leaf had the same chlorophyll, air and water — only the light was different. Since only the lit part made starch, **sunlight is necessary for a leaf to make starch**.

33. Answer: (A) The number of grasshoppers will rise

Frogs eat grasshoppers. With no frogs left, nothing checks the grasshopper population, so **their number rises**. They would then eat far more grass, but the grass would be reduced gradually rather than at once. Snakes are carnivores and can never eat grass.

34. Answer: (B) Light travels much faster than sound

The flash and the thunder happen together, but **light travels much faster than sound** — about 300,000 km per second against roughly 340 m per second. So the light reaches us almost at once while the sound takes several seconds.

35. Answer: (C) P-2, Q-1, R-4, S-3

A fish has a **streamlined body and gills** for moving and breathing in water (2). A pitcher plant **traps insects to obtain nitrogen** from marshy soil (1). A polar bear survives the Arctic with **thick fur and a layer of fat** (4). A frog shoots out a **long sticky tongue to catch insects** (3). Hence P-2, Q-1, R-4, S-3.