



School Level Examination  
SLE 2024

SET: 

I
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**GRADE**  
**7**

**SCIENCE**

Subject Code: 

3	0	1
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Total Questions: 40

Total Marks: 40

Time: 1 hour

**DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED TO DO SO**

- All questions are compulsory.
- Read the instructions on the **ANSWER SHEET** and fill in your **NAME, CLASS** and **OTHER INFORMATION**.
- To mark your choice of answer by darkening the circles in the **ANSWER SHEET**, use a **BLUE/BLACK BALL-POINT PEN** only.
- You **MUST** record your answers on the **ANSWER SHEET** only.
- There are **40 MULTIPLE CHOICE QUESTIONS**. Each question carries one mark. Use the information provided to choose the **BEST** possible answer among the four options. On your **ANSWER SHEET** darken the circle that matches your answer.
- Marks are **NOT** deducted for incorrect answers.
- Return the **ANSWER SHEET** to the invigilator at the end of the examination.
- You are **NOT** allowed to use a calculator. You may use a ruler and spare paper for rough work.

This question paper contains a total of 40 questions divided into three sections—A, B and C.

Read the instructions carefully before attempting these questions.

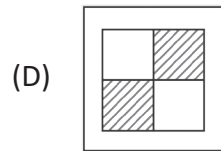
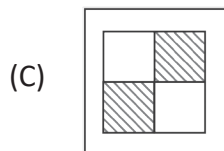
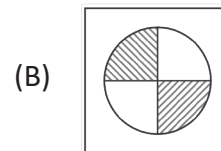
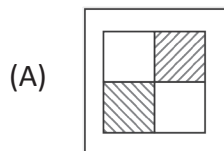
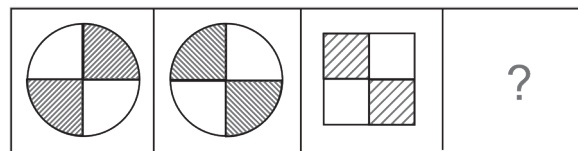
### Section A (Logical Reasoning)

1. Look at this series: J14, L16, \_\_\_\_\_, P20, R22.

Which option should fill the blank?

- (A) S24 (B) N18  
(C) M18 (D) T24

2. Select the option that will fit in the place of (?).



3. In a certain code language, "PAPER" is written as "QCSIW". How is "PHONE" written in that code language?

- (A) QJRRJ (B) QCJKW  
(C) QCKIW (D) QCKIY

4. Some statements are given below, followed by some conclusions. Consider the given statements to be true even if they seem to be different from commonly known facts, then decide which of the given conclusions can be drawn from the given statements.

**Statements:**

- All fingers are hands.
- No hand is lip.

**Conclusions:**

- (i) No finger is lip.  
(ii) All lips are fingers.  
(iii) Some hands are lips.  
(A) Only conclusion (i) is true. (B) Only conclusion (ii) is true.  
(C) Only conclusion (iii) is true. (D) Both conclusions (i) and (ii) are true.

5. Here are some words translated from an artificial language.

*dionot* means *oak tree*.

*blynot* means *oak leaf*.

*blycrin* means *maple leaf*.

Which word could mean “*maple syrup*”?

- |                      |                     |
|----------------------|---------------------|
| (A) <i>blyweel</i>   | (B) <i>hupponot</i> |
| (C) <i>patricrin</i> | (D) <i>blyonot</i>  |
6. Four friends tried to guess the number of sheep in a flock.  
Akash guessed 21, Bobby guessed 26,  
Chris guessed 20, and Daniel guessed 21.  
Two were wrong by 2, and two were wrong by 3. How many sheep were in the flock?
- |        |        |
|--------|--------|
| (A) 22 | (B) 23 |
| (C) 24 | (D) 19 |
7. How many 8's are there in the following number series which are immediately preceded by 3 and succeeded by 6?
- 3 8 6 8 3 8 3 8 3 8 6 3 6 3 8 5 6 8 5 8 3 8 6 3
- |       |       |
|-------|-------|
| (A) 3 | (B) 2 |
| (C) 4 | (D) 5 |
8. Look at this series: 53, 53, 40, 40, 27, 27, ...  
What number should come next?
- |        |        |
|--------|--------|
| (A) 12 | (B) 14 |
| (C) 27 | (D) 53 |

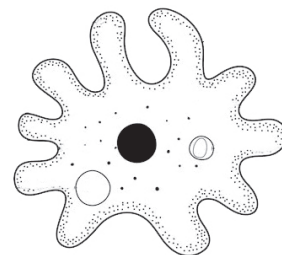
### Section B (Subject Specific)

9. Which of the following statements is true about cell theory?
- |  |   |
|--|---|
| (A) The cell theory does not apply to fungi. | (B) The cell theory does not apply to virus.    |
| (C) The cell theory does not apply to algae. | (D) The cell theory does not apply to microbes. |
10. Which of the following devices measures the speed in automobiles?
- |                 |               |
|-----------------|---------------|
| (A) Speedometer | (B) Odometer  |
| (C) Barometer   | (D) Manometer |
11. China rose indicator is turned green by a solution. The solution is \_\_\_\_\_.
- |             |                   |
|-------------|-------------------|
| (A) Acidic  | (B) Basic         |
| (C) Neutral | (D) None of these |

12. Which of the following is true for exhalation?
- (A) Ribs move up and outwards, diaphragm moves down  
(B) Ribs move down and inwards, diaphragm moves up  
(C) Ribs move up and inwards, diaphragm moves down  
(D) Ribs move down and outwards, diaphragm moves up
13. The average weather pattern of the place recorded for long time for about 10 – 25 years is called \_\_\_\_\_ of the place.
- (A) Weather (B) Daily report  
(C) Annual report (D) Climate
14. Which of the following is a parasitic plant that lacks chlorophyll and obtains nutrients from host plant?
- (A) Rose (B) Cactus  
(C) Dodder (D) Sunflower
15. Which substance is produced when an acid reacts with a base?
- (A) Salt and water (B) Gas and water  
(C) Salt and sugar (D) Gas and salt
16. Match the following and select the correct option.
- | Column I                                | Column II        |
|---|------------------|
| (P) Moving air                          | (i) Thunderstorm |
| (Q) Develop in hot, humid tropical area | (ii) Monsoon     |
| (R) Dark funnel-shaped column of air    | (iii) Wind       |
| (S) Wind carrying water                 | (iv) Tornado     |
- (A) P-(ii), Q-(i), R-(iv), S-(iii) (B) P-(iii), Q-(i), R-(iv), S-(ii)  
(C) P-(iii), Q-(i), R-(ii), S-(iv) (D) P-(ii), Q-(iii), R-(i), S-(iv)
17. Which statement best describes the difference between aerobic and anaerobic respiration?
- (A) Aerobic respiration occurs in the presence of oxygen, while anaerobic respiration occurs in the absence of oxygen.  
(B) Aerobic respiration occurs in plants, while anaerobic respiration occurs in animals.  
(C) Aerobic respiration produces less energy than anaerobic respiration.  
(D) Anaerobic respiration produces oxygen as a by-product, while aerobic respiration produces lactic acid.
18. The oxygen inhaled binds with \_\_\_\_\_ and is transported to all the parts of body and ultimately to all the \_\_\_\_\_.
- (A) Blood, heart (B) Blood, lung  
(C) Haemoglobin, cells (D) Haemoglobin, lung
19. When you heat the tip of a knife in a fire or flame, the entire knife becomes hot. The mode of transfer of heat in it is \_\_\_\_\_.
- (A) Conduction (B) Convection  
(C) Radiation (D) Gas flame

20. Select the correct statement regarding the organism shown in the given figure.

- (A) It feeds on some microscopic organisms.
- (B) When it senses food, it pushes out pseudopodia around the food particle and engulfs it.
- (C) The absorbed substances from the digested food are used for growth, maintenance and multiplication of this organism.
- (D) All of these



21. A student observes that a bulb connected to a battery lights up brightly. What can be inferred about the circuit from this observation?

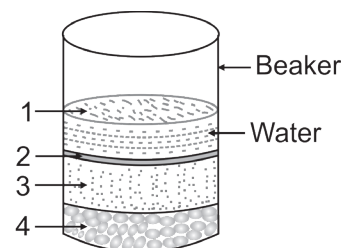
- (A) The circuit is open.
- (B) The circuit is closed.
- (C) The battery is not working.
- (D) The bulb is faulty.

22. Sludge extracted from sewage treatment plant can be utilised in producing \_\_\_\_\_.

- (A) Electricity
- (B) Manure
- (C) Biogas
- (D) All of these

23. Identify the soil components from 1 to 4 as shown in the given diagram.

- (A) 1-Gravel, 2-Sand, 3-Clay, 4-Humus
- (B) 1-Humus, 2-Clay, 3-Sand, 4-Gravel
- (C) 1-Clay, 2-Humus, 3-Sand, 4-Gravel
- (D) 1-Sand, 2-Gravel, 3-Humus, 4-Clay



24. Read the following statements and select the incorrect one.

- (A) Wool is a good conductor of heat.
- (B) Dark surfaces absorb more heat and hence, we feel comfortable in dark-coloured clothes in winter.
- (C) Light-coloured clothes reflect most of the heat that falls on them and hence, we feel more comfortable in them in summer.
- (D) Both (B) and (C)

25. Which of the following statements is incorrect?

- (A) Air expands on heating.
- (B) High speed winds are accompanied by reduced pressure.
- (C) Air contracts on cooling.
- (D) Winds blowing at a speed of 60 km/h or less are called cyclones.

26. A student passes a beam of light through a prism and observes that the light splits into different colours. Which phenomenon of light does this experiment demonstrate?

- (A) Diffraction
- (B) Polarisation
- (C) Dispersion
- (D) Reflection

27. A student conducted an experiment to find the pH of different solutions. The results are tabulated as follows:

• Solution A; pH = 8.5	• Solution B; pH = 6.5
• Solution C; pH = 7.0	• Solution D; pH = 4.0

Based on these results, which solution is a base?

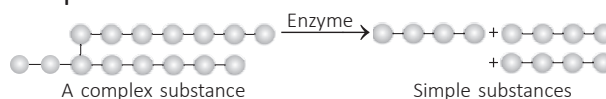
- (A) Solution A (B) Solution B  
(C) Solution C (D) Solution D
28. Which of the following is responsible for controlling opening and closing of stomata?
- (A) Roots (B) Midribs  
(C) Guard cells (D) Flowers

**Instruction: Q. 29 to 33 are two-key based questions having four options A, B, C and D out of which TWO are correct.**

29. Which of the following is not secreted in the stomach?
- (A) Saliva (B) Hydrochloric acid  
(C) Digestive juice (D) Trypsin
30. What happens to milk when it is converted into curd?
- (A) Its state changes from liquid to semi-solid. (B) It changes colour.  
(C) It changes taste. (D) Milk can be reobtained from the curd.
31. What are the essential components of a simple electrical circuit?
- (A) Battery (B) Electric bulb  
(C) Insulator (D) Wood
32. Which of the following statements about respiration in organisms are correct?
- (A) Respiration involves taking in oxygen.  
(B) Respiration is the process of releasing oxygen.  
(C) Respiration occurs only in animals.  
(D) Respiration releases energy stored in food.
33. Which of the following adaptations helps animals survive in hot desert climate?
- (A) Thick fur (B) Nocturnal behaviour  
(C) Large ears for heat dissipation (D) Hibernation during the day

### Section C (Competency Enhancement)

34. What does the given diagram represents?

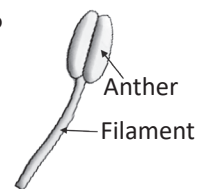


- (A) Nutrition (B) Respiration  
(C) Digestion (D) Excretion

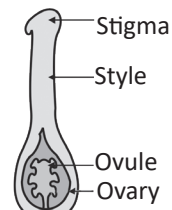
35. When a light ray is reflected repeatedly by a set of parallel plane mirrors, the intensity of the light ray decreases after some reflections. This is because of
- Absorption of some amount of light by mirrors
  - Dispersion of light when the rays travel through the atmosphere
  - Scattering of light by the mirrors
  - None of these.

36. Which of the following statements is correct for the given diagrams?

- Both are reproductive parts of a flower.
- 'P' is stamen, the male reproductive part of a flower.
- 'Q' is pistil, the female reproductive part of a flower.
- All of these



(P)



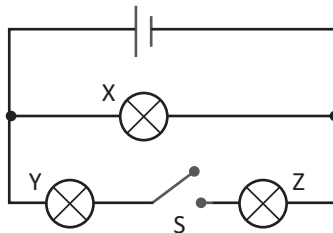
(Q)

37. Read the given statements and select the correct option:

**Statement 1:** Synthetic fibres are obtained from plants and animals.

**Statement 2:** Silk and wool are examples of synthetic fibres.

- Both statements 1 and 2 are correct.
  - Both statements 1 and 2 are incorrect.
  - Statement 1 is correct but statement 2 is incorrect.
  - Statement 1 is incorrect but statement 2 is correct.
38. What will happen to the given identical bulbs X, Y and Z if the switch S is closed?



- Bulb Z becomes brighter.
  - All bulbs stop emitting light.
  - Bulb X is having fluctuating voltage.
  - Bulb Y and Z start glowing.
39. A student sets up an experiment to investigate the effect of light on photosynthesis. He places a potted plant first in light and then in a dark room for 24 hours and measures the amount of oxygen produced. Which of the following predictions is most likely correct?
- The plant will produce more oxygen in the dark.
  - The plant will produce less oxygen in the light.
  - The plant will produce oxygen at the same rate in the dark as in the light.
  - The plant will stop producing oxygen in the dark.
40. A cyclist travels a distance of 180 km in 6 h. If the cyclist continues at the same speed, how far will he travel in next 4 h?
- 90 km
  - 120 km
  - 150 km
  - 180 km



