



SCIENCE

Grade 8

National Level Examination
NLE 2024

Subject Code:

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Total Questions: 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 Pen** only.
- You **MUST** record your answers on the **ANSWER SHEET** only.
- There are **40 MULTIPLE CHOICE QUESTIONS**.
Use the information provided to choose the **BEST** answer among the four possible options.
On your **ANSWER SHEET** fill in the circle that matches your answer.
- **$\frac{1}{2}$ MARK** will be deducted for every **WRONG ANSWER**.
- 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.

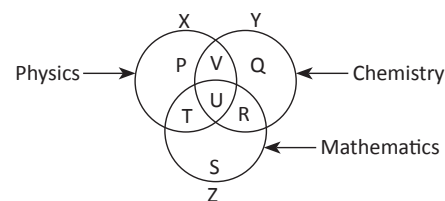


This question paper contains a total of 40 questions divided into three sections—A, B and C.

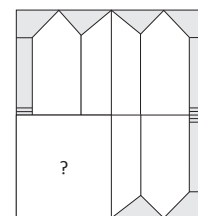
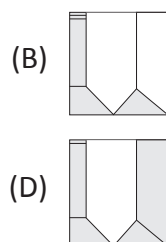
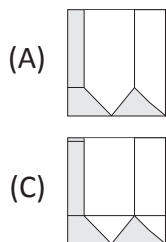
Read the instructions carefully before attempting these questions.

Section–A (Logical Reasoning)

- In a class among the passed students, Rahul is 22nd from the top. Kalpana, who is 5 ranks below Rahul, is 34th from the bottom among the passed students. All the students from the class appeared for an examination. If the ratio of the students who passed in the examination to those who failed is 4:1 for the class, then how many students were there in the class?
(A) 66 (B) 60
(C) 75 (D) 90
- CAACCAC is to 3113313 as CACAACAC is to _____.
(A) 13133113 (B) 13133313
(C) 31311131 (D) 31311313
- In a certain code language,
(i) 'pit dar na' means 'you are good'. (ii) 'dar tok pa' means 'good and bad'.
(iii) 'time na tok' means 'they are bad'.
What does 'they' stand for?
(A) na (B) time
(C) tok (D) pit
- Amita, Babita, Chinki, Deepa, Priya and Fatima are standing in a row. Babita is between Fatima and Deepa. Priya is between Amita and Chinki. Amita stands next to neither Fatima nor Deepa. Chinki does not stand next to Deepa. Between which of the following pairs of persons is Fatima?
(A) Amita and Chinki (B) Chinki and Deepa
(C) Babita and Chinki (D) Amita and Babita
- The given Venn diagram represents the students who study Physics, Chemistry and Mathematics. Identify the region which represents the students who study Physics or Mathematics or both but not Chemistry.
(A) T
(B) P + T + S
(C) V
(D) P + T + S + R + U + V
- The positions of how many letters will remain unchanged if each of the letters in the word WALKING is arranged in alphabetical order from left to right?
(A) None (B) One
(C) Two (D) Four
- Identify the mirror image of the given object.
1 9 6 5 I N D O P A K
(A) K A P O D N I 2 9 6 I (B) 9 A X I N D O I 2 9 2
(C) K A P O D N I 2 9 2 I (D) 2 9 2 I N D O P A K



8. Select a figure from the options which will complete the pattern in figure.

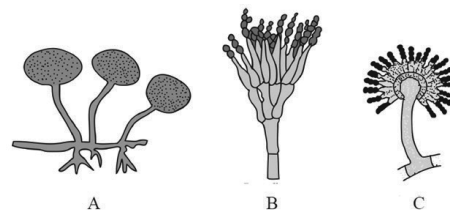


Section-B (Subject Specific)

9. The milk is heated to about 70°C for 15 to 30 seconds and then suddenly chilled and stored. By doing so, it prevents the growth of microbes. This process is called _____.
- (A) pasteurization (B) preservation
(C) protection (D) conservation
10. Which statement among the following is INCORRECT regarding the fertilisers?
- (A) Fertilisers are rich in plant nutrients. (B) Fertilisers are produced in factories.
(C) Fertilisers are natural substance. (D) Fertilisers do not provide any humus to soil.
11. Once a fire broke out near Raman's house. He saw fireman wearing some kind of uniform to protect themselves from heat. Which of the following helps the uniform of fireman to make them flame resistant?
- (A) Teflon coating (B) Zinc coating
(C) Melamine plastic coating (D) Synthetic fibre
12. Match the items given in column I with correct option in column II.

	Column I		Column II
(p)	Agriculture	(i)	Cultivation of garden plants
(q)	Pisciculture	(ii)	Raising of silkworms
(r)	Sericulture	(iii)	Cultivation of crops for food
(s)	Horticulture	(iv)	Rearing of fishes

- (A) (p) – (i), (q) – (ii), (r) – (iii), (s) – (iv) (B) (p) – (iii), (q) – (iv), (r) – (ii), (s) – (i)
(C) (p) – (ii), (q) – (iii), (r) – (iv), (s) – (i) (D) (p) – (iii), (q) – (ii), (r) – (i), (s) – (iv)
13. How can you control the spread of malaria?
- (A) By consuming boiled water (B) By using contraceptives
(C) By using mosquito nets and mosquito repellents (D) All of these
14. On a humid summer day, the bread had green-brown spots on it. When seen under microscope, they appear as _____.
- (A) A (B) B (C) C (D) None of these





15. Which of the following use of non-metal is NOT correct?
- (A) Non-metals are used in fertilisers to enhance the growth of plants.
 - (B) Non-metals are used in water purification process.
 - (C) Non-metals are used in making wires for electrical conduction.
 - (D) Non-metals are used in crackers.
16. Petroleum Conservation Research Association advises and gives tips to save petrol/diesel while driving. The tips are:
- (i) Drive your vehicle at constant and moderate speed.
 - (ii) Switch off the engines at red lights.
 - (iii) Get regular checkup of vehicle and tyre pressure.
- (A) (i) and (iii) only
 - (B) (i) and (ii) only
 - (C) (ii) and (iii) only
 - (D) All of these
17. Read the following differences between fertiliser and manure and select the correct ones.

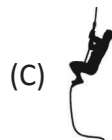
	Fertiliser	Manure
(i)	It is man-made inorganic salt.	It is obtained naturally.
(ii)	It is prepared in factories.	It is prepared in fields.
(iii)	It provides lot of humus to soil.	It does not provide any humus to the soil.
(iv)	It is less rich in NPK.	It is very rich in NPK.

- (A) (iii) only
 - (B) (i) and (iv) only
 - (C) (i) and (ii) only
 - (D) (iii) and (iv) only
18. Goldsmith blows the outermost zone of flame with a blow pipe for melting gold and silver because it is the _____.
- (A) zone of incomplete combustion and is moderate hot
 - (B) zone of complete combustion and least hot
 - (C) zone of complete combustion and the hottest zone
 - (D) zone of incomplete combustion and is the hottest zone
19. Read the following statements and select the correct option.
- Statement-I:** If cutting of trees continues, rainfall and the fertility of the soil will decrease.
- Statement-II:** Chances of natural calamities like floods and droughts will get lowered.
- (A) Statement-I is correct and statement-II is incorrect.
 - (B) Statement-I is incorrect and statement-II is correct.
 - (C) Both the statements are correct and statement-II is the correct explanation of statement-I.
 - (D) Both the statements are correct and statement-II is not the correct explanation of statement-I.

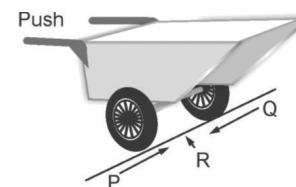
20. Which of the following statements is TRUE about biosphere reserve?
- (A) It is protected area for endemic species only.
 (B) It is meant to conserve both biodiversity and culture of that area.
 (C) It is meant to conserve only flora and fauna of that area.
 (D) It protects only wildlife.
21. Raj accidentally placed his hand over a burning candle on Diwali but immediately pulled his hand back. He felt the sensation of heat due to _____.
- (A) Skin (B) Nerve cells
 (C) Genes (D) Blood cells
22. Which of the following diagrams shows the most common orientation of the foetus inside the uterus at the time of delivery?



23. The hormones of various glands in the human body are given below. Which among the following pairs is INCORRECTLY matched?
- (A) Thyroid gland – Testosterone (B) Pancreas – Insulin
 (C) Adrenal gland – Adrenaline (D) Pituitary gland – Growth hormone
24. When forces F and $3F$ are exerted on similar area, then the ratio of pressure will be _____.
- (A) 1 : 1 (B) 1 : 3
 (C) 3 : 1 (D) 6 : 1
25. Which of the following actions involves a push?



26. Read the given statements and select the correct one.
- (A) Endemic species are those species of plants and animals which are found everywhere.
 (B) Deforestation leads to a decrease in the water-holding capacity of the soil.
 (C) The plants and animals found in a particular area are termed as flora and fauna respectively of that area.
 (D) Both (B) and (C)
27. Rita is pushing a trolley in a market. Which arrow shows the frictional force acting on the wheels?
- (A) P (B) Q
 (C) R (D) None of these





28. What happens when dilute sulphuric acid is poured on a copper plate?
- (A) Copper does not react with dilute sulphuric acid.
 - (B) Copper is more reactive than hydrogen.
 - (C) Copper displaces hydrogen from sulphuric acid.
 - (D) Copper reacts with sulphuric acid and liberates hydrogen gas.

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. Who among the following are likely to have the more frequency of sound than a woman?
- (A) Baby girl
 - (B) Baby boy
 - (C) A man
 - (D) None of these
30. Select the correct statement regarding solar system.
- (A) The Pole star lies close to the axis of rotation of the Earth.
 - (B) The size of the illuminated part of the moon visible from the Earth decreases each day after the new moon day.
 - (C) The distance of Alpha Centauri is about 2.3 light years.
 - (D) The stars are millions of times farther away than the Sun.
31. Which of the following constellations are visible during winter season?
- (A) Ursa Major
 - (B) Orion
 - (C) Big Dipper
 - (D) Cassiopeia
32. Which among the following instruments is beaten or struck to produce sound?
- (A) Drum
 - (B) Flute
 - (C) Tabla
 - (D) Cymbal
33. Select the correct examples that increase friction.
- (A) Soles of shoes
 - (B) Powder is sprinkled on the carom board
 - (C) Gymnasts apply some coarse substance on their hands
 - (D) Lubricants used in machines

Section–C (Competency Enhancement)

34. While playing in the park, Harry observed that water from the leaking pipe forms fountains. He asked his elder brother about this and told him to explain him about this. From the given options choose the best explanation that would have been given by Harry's elder brother.
- (A) Water exerts pressure on wall
 - (B) Water stopped flowing due to leakage
 - (C) No pressure was exerted by water due to leakage
 - (D) Water is at resting state
35. We can hear the sound of an approaching train by pressing our ear to a railway track but cannot hear its sound through air. Which of the following could be the best reason for this?
- (A) Hearing ability is good.
 - (B) Sound travels about 15 times faster in iron than air.
 - (C) Railway track is hottest during afternoon.
 - (D) All of these



36. Read the following statements and select the correct option.

Statement 1: Stars appear to twinkle.

Statement 2: The faint light coming from stars is refracted by the layers of air in the atmosphere.

- (A) Both statements are correct and statement-2 is the correct explanation of statement-1.
- (B) Both statements are correct, but statement-2 is not the correct explanation of statement-1.
- (C) Statement-1 is correct and statement-2 is incorrect.
- (D) Both statements are incorrect.

37. Choose the odd one out from each group and pick the correct option.

- (i) Pesticides, fertilisers, rodenticides, insecticides
 - (ii) Drip irrigation, furrow irrigation, flood, basin irrigation
 - (iii) Bacteria, compost, green manure, farmyard manure
 - (iv) Maize, wheat, mustard, gram
- (A) Pesticides, furrow irrigation, manure, wheat (B) Fertilisers, flood, bacteria, maize
(C) Rodenticides, basin irrigation, compost, gram (D) Insecticides, flood, compost, wheat

38. Swati picked up a utensil at home. She saw that the utensil had acquired a dull green coating on its outer surface. What is the possible reaction that might have happened?

- (A) $\text{Cu} + \text{H}_2 + \text{CO}_2 \longrightarrow \text{Cu}(\text{OH})_2$ (B) $\text{Cu} + \text{H}_2\text{O} + \text{CO}_2 \longrightarrow \text{Cu}(\text{OH})_2 + \text{CuCO}_3$
(C) $\text{Cu} + \text{H}_2\text{O} + \text{CO}_2 + \text{O}_2 \longrightarrow \text{Cu}(\text{OH})_2 + \text{CuCO}_3$ (D) $\text{Cu} + \text{H}_2\text{O} + \text{CO}_2 + \text{O}_2 \longrightarrow \text{CuCO}_3$

39. Which statement(s) describe both renewable and non-renewable sources correctly?

	Renewable sources	Non-renewable sources
Statement 1	Once used up cannot be replaced	Will never run out
Statement 2	Resources present in unlimited quantity in nature	Amount of these resources in nature is limited
Statement 3	Cannot be exhausted by human activities	Can be exhausted by human activities
Statement 4	Examples: Minerals, coal, petroleum, natural gas etc.	Examples: Sunlight, air

- (A) Statement 1 and 4 only (B) Statements 2 and 3 only
(C) Statement 3 only (D) Statements 1,2,3 and 4

40. Which of the following statements are correct?

- (i) Sound is produced by vibrations.
 - (ii) Sound requires a medium for propagation.
 - (iii) Light and sound both require a medium for propagation.
 - (iv) Sound travels slower than light.
- (A) (i) and (ii) only (B) (i), (ii) and (iii) only
(C) (i) and (iv) only (D) (i), (ii) and (iv) only



