

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 02 FOR PERIODIC TEST-II (2017-18)

SUBJECT: SCIENCE (086)

BLUE PRINT FOR PERIODIC TEST-II: CLASS X

Chapter	VSA (1 mark)	SA – I (2 marks)	SA – II (3 marks)	LA (5 marks)	Practical Based Questions	Total
Chemical Reactions and Equations	--	--	--	5(1)	--	5(1)
Acids, Bases and Salts	--	--	3(1)	--	--	3(1)
Metals and Non-metals	--	--	--	--	2(1)	2(1)
Carbon and its compounds	1(1)	--	3(1)	--	--	4(2)
Life Process	--	--	--	5(1)	--	5(1)
Control and Coordination	--	--	3(1)	--	2(1)	5(2)
How do organisms reproduce?	1(1)	2(1)	--	--	--	3(2)
Light - Reflection and Refraction	--	--	3(1)	--	2(1)	5(2)
Electricity	--	--	3(1)	--	--	3(1)
Magnetic Effects of Electric Current	--	--	--	5(1)	--	5(1)
Total	2(2)	2(1)	15(5)	15(3)	6(3)	40(14)

MARKING SCHEME FOR PERIODIC TEST-II

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
VSA	1	2	02
SA – I	2	1	02
SA – II	3	5	15
LA	5	3	15
Pract Based Quest.	2	3	06
GRAND TOTAL			40

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SUBJECT: SCIENCE

MAX. MARKS : 40

CLASS : X

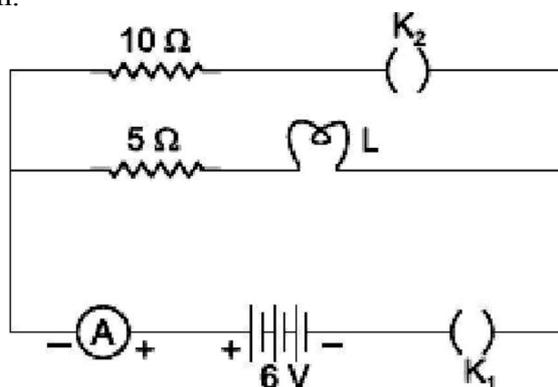
DURATION : 1½HRS

General Instructions:

1. All questions are compulsory.
2. The question paper comprises of **two Sections, A and B**. You are to attempt both the sections.
3. All questions of **Section-A** and **Section-B** are to be attempted separately.
4. Question number **1 to 2** in **Section-A** are **one mark** question. These are to be answered in **one word** or in **one sentence**.
5. Question numbers **3** in **Section-A** is **two marks** questions. These are to be answered in about **30 words** each.
6. Question numbers **4 to 8** in **Section-A** are **three marks** questions. These are to be answered in about **50 words** each.
7. Question numbers **9 to 11** in **Section-A** are **five marks** questions. These are to be answered in about **70 words** each.
8. Question numbers **12 to 14** in **Section-B** are questions based on practical skills and are **two marks** questions.

SECTION – A

1. Write the electron dot structure of ethane molecule (C₂H₆).
2. Name the method by which Hydra reproduces. Is this method sexual or asexual?
3. With the help of a diagram show the different stages of binary fission in Amoeba.
4. What are isomers? Why can't we have isomers of first three members of alkane series? Draw the possible structures of isomers of butane, C₄H₁₀.
5. Explain the action of dilute hydrochloric acid on the following with chemical equations: (a) Magnesium ribbon (b) Sodium hydroxide (c) Crushed egg shells
6. Study the circuit shown:



A current of 0.6 A is shown by ammeter in the circuit when the key K₁ is closed. Find the resistance of the lamp L. What change in current flowing through the 5 Ω resistor and potential difference across the lamp will take place, if the key K₂ is also closed. Give reason for your answer.

7. (a) What are isomers? Draw the structures of two isomers of butane, C₄H₁₀.
(b) Differentiate between alkenes and alkynes.

8. Smita's father has been advised by a doctor to reduce his sugar intake.
- Name the disease he is suffering from and name the hormone whose deficiency causes it.
 - Identify the gland that secretes it and mention the function of this hormone.
 - Explain how the time and amount of secretion of this hormone is regulated in human system.
9. (a) Define a balanced chemical equation. Why should an equation be balanced?
- (b) Write the balanced chemical equation for the following reaction:
- phosphorus burns in presence of chlorine to form phosphorus pentachloride.
 - burning of natural gas.
 - the process of respiration.
10. (a) Draw a sectional view of the human heart and label on it – Aorta, Right ventricle and Pulmonary veins.
- (b) State the functions of the following components of transport system: (i) Blood (ii) Lymph
11. Draw the pattern of magnetic field lines through and around a current carrying loop of wire. Mark the direction of (i) electric current in the loop (ii) magnetic field lines. How would the strength of magnetic field due to current, carrying loop be affected if- (a) radius of the loop is reduced to half its original value? (b) strength of current through the loop is doubled?

SECTION – B

12. When a metal X is treated with cold water, it gives a base Y with molecular formula XOH (Molecular mass = 40) and liberates a gas Z which easily catches fire. Identify X, Y and Z.
13. A child reads words of a book with the help of a convex lens keeping it close to book. He find words enlarged and erect when he gradually withdraws the lens away from the book. At one position, the words again become distinctly visible but this time, these are enlarged and inverted. Explain this difference with the help of ray diagram for both cases.
14. Classify the following movements as tropic or nastic :
- Opening of flower.
 - Roots moving downwards.
 - Shoots moving towards light.
 - Twirling of a tendril.