

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 01 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	--	--	3(1)	--	--	3(1)
Acids, Bases and Salts	1(1)	--	--	--	2(1)	3(2)
Metals and Non-metals	--	--	3(1)	--	--	3(1)
Carbon and its compounds		--		5(1)	--	5(1)
Life Process	--		--	--	2(1)	2(1)
Control and Coordination	--	--	--	5(1)	--	5(1)
How do organisms reproduce?	--	2(1)	3(1)	--	--	5(2)
Light - Reflection and Refraction	--	--	--	5(1)	--	5(1)
Electricity	1(1)	--	3(1)	--	--	4(2)
Magnetic Effects of Electric Current	--	--	3(1)	--	2(1)	5(2)
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

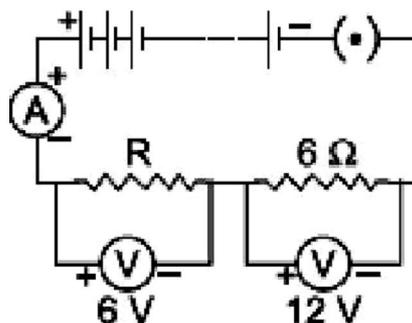
DURATION : 1½HRS

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

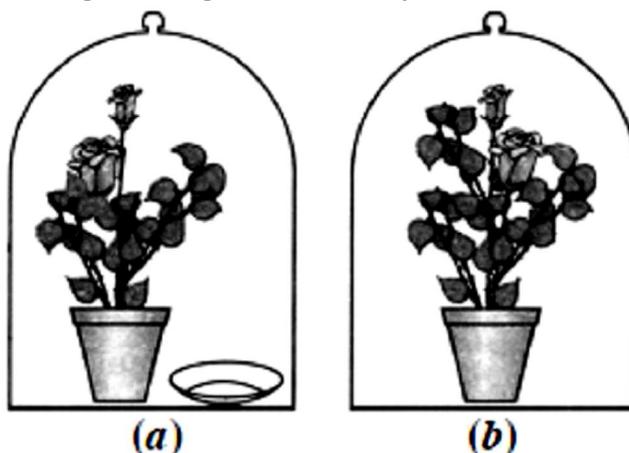
1. Which acid and base are used in formation of following salts (a) CuSO_4 (b) NaNO_3 ?
2. What happens to resistance of a conductor when its area of cross-section is increased?
3. What is regeneration? State a reason why a more complex organism cannot give rise to new individuals through this method.
4. (a) Why is respiration considered an exothermic reaction?
(b) Define the terms-oxidation and reduction.
(c) Identify the substance that is oxidised and reduced in the reaction:
$$\text{CuO(s)} + \text{Zn(s)} \rightarrow \text{Cu(s)} + \text{ZnO(s)}$$
5. (a) Write the electron dot structures for potassium and chlorine.
(b) Show the formation of KCl by the transfer of electrons.
(c) Name the ions present in this compound, KCl .
6. Write the full form of DNA. Name the part of the cell where it is located. Explain its role in the process of reproduction of the cell.
7. A circuit is shown in the diagram given below.
 - (a) Find the value of R .
 - (b) Find the reading of the ammeter.
 - (c) Find the potential difference across the terminals of the battery.



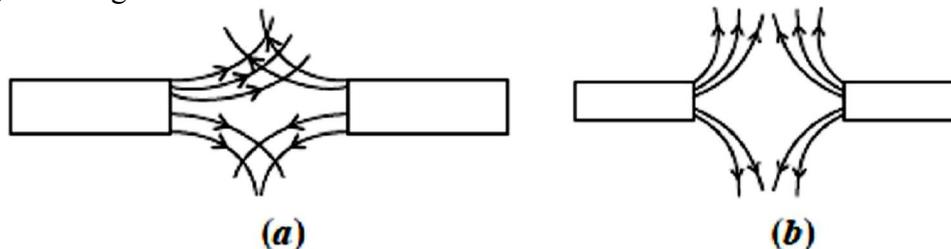
8. What is meant by solenoid? How does a current carrying solenoid behave? Give its main use.
9. (a) Define the term 'isomers'.
 (b) Draw two possible isomers of the compound with molecular formula C_3H_6O and write their names.
 (c) Give the electron dot structures of the above two compounds.
10. What is meant by reflex-action? With the help of a labelled diagram trace the sequence of events which occur when we touch a hot object.
11. (a) Draw a ray diagram to show the formation of image by a convex lens when an object is placed in front of the lens between its optical centre and principal focus.
 (b) In the above ray diagram mark the object-distance (u) and the image-distance (v) with their proper signs (+ve or -ve as per the new Cartesian sign convention) and state how these distances are related to the focal length (f) of the convex lens in this case.
 (c) Find power of a convex lens which forms a real, and inverted image of magnification -1 of an object placed at a distance of 20 cm from its optical centre.

SECTION – B

12. Given below is the experimental set-up to establish that one of the atmospheric gases is essential for photosynthesis in plants.
 (a) Name the atmospheric gas which is essential for photosynthesis.
 (b) What is kept in watch-glass in figure 'a' and why?



13. Magnetic field lines of two magnets are shown in fig. (a) and (b). Select the figure that represent the correct pattern of field lines. Give reason for your answer. Also name the poles of the magnet facing each other.



14. Given below are the pH values of four different liquids :
 7.0, 14.0, 4.0, 2.0
 Which of these could be that of (a) lemon juice, (b) distilled water, (c) 1 M sodium hydroxide solution, (d) tomato juice?