

SUMMATIVE ASSESSMENT - II**CLASS - X 2014****SUBJECT SCIENCE (086)**

Types of questions	Marks per question	Total no of questions	Total marks
MCQ	1	18	18
VSA	1	3	3
SA-I	2	4	8
SA-II	3	12	36
LA	5	5	25
Total		42	90

The question paper will include value based question(s) to the extent of 3-5 marks.

WEIGHTAGE

S. No.	Name of the unit	Weightage
1.	Chemical substances Nature and Behaviour	23
2.	World of Living	30
3.	Natural Phenomena	29
4.	Natural resources	8
TOTAL		90

SUMMATIVE ASSESSMENT - II**CLASS - X 2014****SUBJECT SCIENCE (086)****Very Short Answer type (1 mark) questions**

1	What are oxidizing agents? Give one example.
2	State two advantages of vegetative propagation.
3	A green plant receives 50,000J of energy from the sun in the form of sunlight. How much energy will it capture and convert to food energy?

Short Answer-I type (2 mark) questions

1	Why do we need to look for alternatives sources of energy other than fossil fuels? Give two reasons.
2	Give reasons for the following- (a) Sky appears dark instead of blue to an astronaut in space. (b) Planets do not twinkle.
3	What is placenta? Write its two functions.

Short Answer-II type (3 mark) questions

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| 1 | Define addition reaction. Write its one industrial application. Which of the following hydrocarbons undergo addition reaction? C_3H_4 , C_4H_{10} , CH_4 , C_2H_4 . |
| 2 | (a) Mention the fundamental property of element which formed the basis of Modern periodic table and state Modern periodic law.
(b) Mention the period to which Na, Mg and Al belong to. Justify their position in the periodic table. |
| 3 | Draw the longitudinal section of a flower and label the part which
(a) develops into fruit
(b) produces pollens
(c) is sticky and receives the pollens
(d) is colourful and attracts the insects |
| 4 | A Mendelian experiment consisted a cross of round and yellow seed plant with wrinkled and green seed plant. The progeny had all round seeds but almost half of them had green seeds.
Write the genetic make up (genotype) of the following-
(a) parent plant with round and yellow seeds
(b) parent plant with wrinkled and green seeds
(c) progeny with round and green seeds |

5	How can the age of fossils be estimated?
6	An object 3cm in length is held 25cm away from a converging lens of focal length 15cm. Find (i) the position (ii) size (iii) nature of the image formed.
7	Ramesh is not able to see distant objects clearly. Name the eye defect he is suffering from? How can this defect be corrected? Draw the ray diagram to show image formation (i) by the eye with defect (ii) by the corrected eye.
8	(a) Seema is a student of class X. She read in her textbook that certain compounds used as refrigerants and in the deodorants are harmful to the ozone layer. She got concerned as she (b) knew about the importance of the ozone layer in the atmosphere. She also talked to her (c) teacher about her interest in spreading awareness about ozone depletion. Now answer the following questions: Write the full form of the compounds which harm the ozone layer. Mention the function of the ozone layer. How can Seema spread awareness about the ozone layer in her school? Mention any two activities that may help her in doing it.
Long Answer -II type (5 mark) questions	
1	(a) Explain the mechanisms of the cleansing action of soaps. (b) Detergents are effective in hard water but soaps are not. Why?

2	<p>(a) Draw the ray diagrams for the image formation by a concave mirror when the object is at (i) infinity (ii) between F and C (iii) between P and F (b) Explain why we prefer to use a convex mirror as a rear view mirror in vehicles? (c) Write any two uses of a concave mirror.</p>
3	<p>An object is placed at a distance of 15cm from a convex mirror of focal length 20cm. Find (a) the position and nature of the image. (b) Define refractive index. Light enters from air to diamond having refractive index 2.42. Find the speed of light in the diamond. The speed of light in vacuum is 3×10^8m/s.</p>