SECOND TERM EXAM

SAMPLE PAPER

STD – X Subject Code : S - 1031 Sub : Science (E)

Max. Marks : 30 Time:75 min

Instructions: (i) The question paper comprises of questions of 10 marks each.
(ii) All questions are compulsory.
(iii) There is no overall choice. However internal choice has been provided in one question of 3 marks and one question of 4 marks category. You have to attempt only one option in such questions.
(ii) Begin each new question on a fresh page.
(iv) Figures to the right indicates full marks.

Q1. A Select the most correct alternative given below each statement and write the completed statement: 1

i) Complex carbohydrate is converted into _____in our small intestine.
a) Lactose
b) Maltose
c) Glucose
d) Sucrose

ii) Food materials are broken down outside the body and absorbed in organisms like _____

a) Amoeba, Paramoecium, Lice
b) Amoeba, Mushrooms, Green Plants
c) Cuscuta, Leeches, Tapeworm
d) Mushrooms, Yeast, bread Moulds

B. i) Name the following: 2
a) The scientist who classified the elements on the basis of their atomic numbers.
b) The element that was discovered later and had properties similar to Eka-boron.
ii) What is biological magnification ?

C. Answer the following: **3**

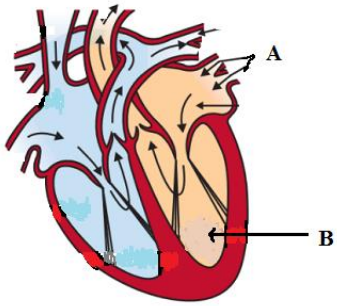
i) How is the valency of an element determined?

ii) Why does the atomic size increase down a group?

iii) The atomic number of an element is 15. State its electronic configuration and the period to which it belongs.

D. Attempt the following **4**

i)The heart has different chambers to prevent the oxygen rich blood from mixing with the blood containing carbon dioxide.



a) Name the parts labeled 'A' and 'B'.

b) Why is blood circulation in the human heart termed as Double circulation?

c)What is the purpose of sending blood to the kidney for filtration?

ii) State two functions of bile juice in the digestion of food .

Q2 A. Match the examples of what happens in the nature from column 'A'with the phenomena of light from column 'B' 1

Column'A'	**Column 'B'**
i) Twinkling of stars	- dispersion of light
ii) Rainbow formation	- scattering of light
	- refraction of light

B.i) **Name the following:** **1**

a) The trees for which Amrita Devi Bishnoi and others sacrificed their lives.

b) Ancient water harvesting structures found in Himachal Pradesh.

ii) Why should we conserve forests and wildlife? **1**

C. A student sitting at the back bench in a classroom has difficulty in Reading from the blackboard. **3**

i) What could be his defect of vision?

ii) State two possible causes of this defect.

iii) Explain the method of correcting this defect with the help of ray diagram.

OR

C. 25 years old Raja is unable to see distinctly the words printed on a newspaper.

i) Name the defect of vision he is suffering from.

ii) List its two possible causes.

iii) Explain the method of correcting this defect with the help of ray diagram.

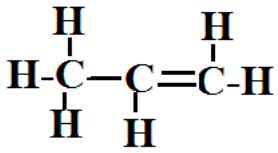
D. Attempt the following **4**

i) What is Catenation?

ii) State one point of difference between Ethane and Ethyne with reference to its bonding between the carbon atoms.

iii) Why are Vegetable oils considered a healthier option than animal fats for cooking?

iv) Observe the structural formula given below and answer the following question.



Is it a saturated or unsaturated hydrocarbon. Justify your answer.

Q3 A. Observe the correlation in the first pair and complete the second pair. **1**

i) Carboxylic acid : COOH :: Alcohol : _____

ii) C_nH_{2n+2} : alkane :: C_nH_{2n-2} : _____

B. Answer the following: 2

i) A ray of light while travelling from water to air medium, the direction of propagation of light in the air medium changes.

a)State the term used to express the ratio of speed of light in one medium to that in another medium.

b)Why does a ray of light changes its direction when it travels from one medium to another? Give one reason.

ii) Arrange the following so as to make a three step food chain.

a) Tiger, Grass, Deer.

b) Name the secondary consumer.

C. Answer the following: **3**

i) How is acquired trait different from inherited trait? Mention any one point of difference.

ii) The wing of a bat and wing of a bird is considered as analogous characteristic and not a homologous characteristic: Justify.

iii) If we cross breed tall (dominant) pea plant with pure -bred dwarf (recessive)pea plant, we will get plants of F_1 generation. If we now self - cross the pea plants of F_1 generation ,we obtain pea plants of F_2 generation.

i) what do the plants of F_1 generation look like?

ii) state the ratio of tall plants to dwarf plants in F_2 generation.

D. Do as directed. **4**

i)Draw a neat diagram to show the formation of image in a concave mirror when an object is placed between pole and the focus of the mirror.

ii) State the size and nature of the image

iii) A concave mirror of focal length 15 cm forms an image of a candle light kept at a distance of 10 cm from the mirror. Find the position of the candle.

OR

D. Do as directed **4**

i)Draw a neat diagram to show the formation of image in a convex lens when an object is placed beyond $2F_1$.

ii) State the size and nature of the image.

iii) A lighted candle is placed at 0.05 m from a convex lens of focal length 10 cm. Find the position of the image formed by the lighted candle.
