GREENLAWNS SCHOOL, WORLI

FINAL EXAMINATION: 2023-24

SCIENCE

Std: VII Marks: 80

Date: 12/02/2024 Time: 2 hrs

Carefully read this paper in the first ten minutes. Your answers should be concise and contain scientific terms. All answers have to be written on the answer script.

Q.I) Select the correct answers to the questions from the given options. [10]

(Do not copy the question. Write the correct answer only):

1) The electrons present in the outermost shell of an atom are known as:

(a) Balance electrons (c) Nuclear electrons

(b) Valence electrons (d) Atomic electrons

2) When barium chloride is added to sulphuric acid, the colour of the precipitate formed is:

(a) Red (c) Yellow

(b) Blue (d) White

3) The form of Carbon used in making pencil lead is:

(a) Coal (c) Graphite

(b) Diamond (d) Charcoal

4) The displacement of an object in unit time is called:

(a) Velocity (c) Motion

(b) Speed (d) Distance

5) The reverse process of sublimation is:

(a) Distillation (c) Deposition

(b) Solidification (d) Liquefaction

6) An echo is heard only if the reflected sound reaches our ears after a gap of:

(a) One-fifth of a second (c) One second

(b) One-tenth of a second (d) Five seconds

7) In older woody stems, stomata are replaced by:

(a) Xylem (c) Parenchyma

(b) Phloem (d) Lenticels

8) The junction between two neurons i.e. between dendrite of one neuron and the axon terminal of the immediately next neuron, is called a:

(a) Cyton (c) Dendrites

(b) Synapse (d) Axon terminal

9) Dodder plants possess special sucking roots known as:

(a) Suckers (b) Nodules (c) Haustoria (d) Rhizoids

10) The function of kidneys is to remove urea, excess water, soluble salts and other dissolved wastes by filtering:

(a) Blood
(b) Urine
(c) Sweat
(d) Sebum

Q.II A) State whether the following statements are true or false. If false, rewrite the correct statement by changing the underlined word / words: [5]

1) Tin is used in filaments of incandescent light bulbs, X-ray tubes.
2) $2KClO_3 \longrightarrow 2KCl + 3O_2$. This reaction is an example of Combination reaction.
3) Black surface absorbs more radiation than a whiter surface.
4) The dark pigment melanin, which determines the skin colour, is produced in the dermis.
5) On the inside of tympanum lies an air-filled space that contains three tiny bones collectively called ear ossicles.

B) Match the items in Column A with the most appropriate ones in Column B: [5]

Column A	Column B
1) Copper	(a) Bad conductor of heat
2) Glass	(b) Detect odour and get stimulated
3) Silicon	(c) Good conductor of heat
4) Olfactory receptors	(d) Control and regulate the flow of urine
5) Sphincter muscles	(e) Metalloid

C) Fill in the blanks with the correct choice given in brackets: [5]

1) _____ (Metals / Non-metals) have high melting and boiling points.
2) Loudness depends on _____ (timbre / amplitude).
3) When sodium carbonate reacts with hydrochloric acid _____ (acetic / carbonic) acid is formed.
4) The end of each semi-circular canal is swollen and contains sensory cells for maintaining _____. (static balance/dynamic balance).
5) A microorganism that respires anaerobically is _____ (yeast/virus).

D) Define the following terms: [5]

1) Catalyst
2) Vector quantity
3) Malleability
4) Nerve
5) Osmoregulation

E) Give one difference between the following pairs on the basis of what is indicated in the bracket. Answer only in tabular form. [5]

1) Sulphate and Carbonate (valency)
2) Heat and temperature (SI unit)
3) Mass and weight (instrument which measures)
4) Stroma and grana (structure)
5) Urinary tract infection and kidney stone (cause)

F) Give scientific reasons for the following: [5]

1) Railway tracks are laid with some space between them.
2) Mass is a scalar quantity.
3) Galvanized iron is not used in the containers of food materials.
4) Insectivorous plants grow in nitrogen deficit soil.
5) The rate of photosynthesis decreases at very high intensity of light.

Q.III A) Solve the following numericals:

1) A cyclist travels a distance of 1 km in the first hour, 0.5 km in the second hour and 0.3 km in the third hour. Find the average speed of the cyclist in kmh^{-1} and ms^{-1}. [3]
2) Convert 40^0C to the Fahrenheit scale and Kelvin scale. [3]

B) Write word equations for the following reactions: [2]

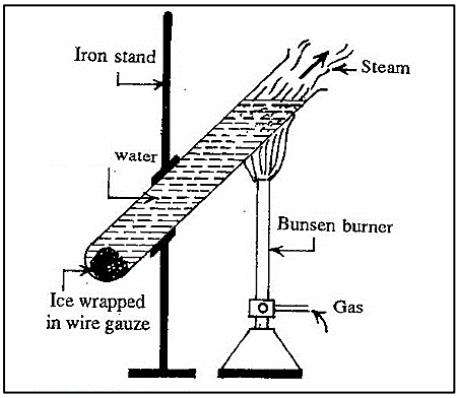
1) Formation of Calcium oxide by heating calcium in air.
2) Decomposition of Water.

C) Complete the table by writing the chemical formula of the following compounds: [2]

Name	Chemical formula
Sodium carbonate	
Zinc sulphide	

Q.IV) Answer the following diagram-based questions:

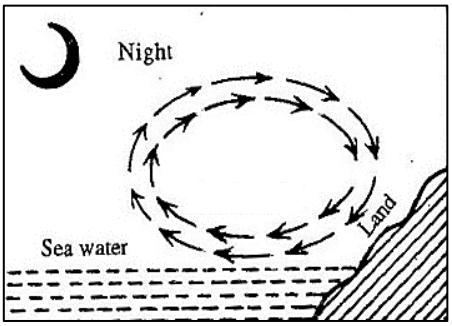
1) Observe the experiment given below and answer the questions: [2]



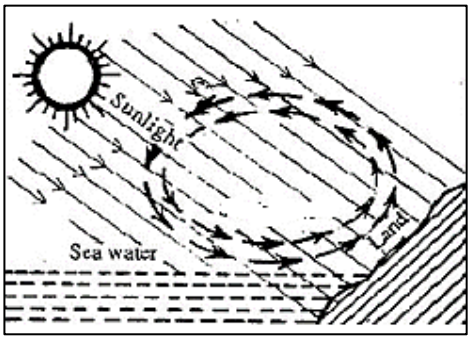
(a) What will you observe in this experiment?

(b) What do you conclude from this experiment?

2) The figures below represent convection currents in nature:



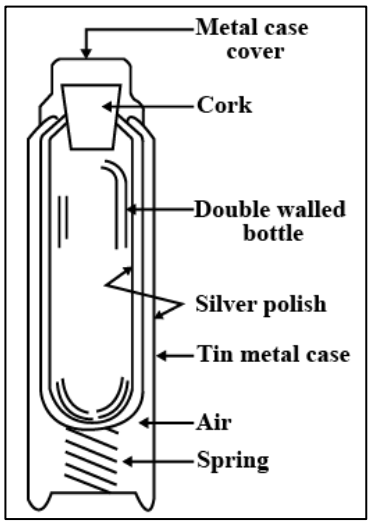
(i)



(ii)

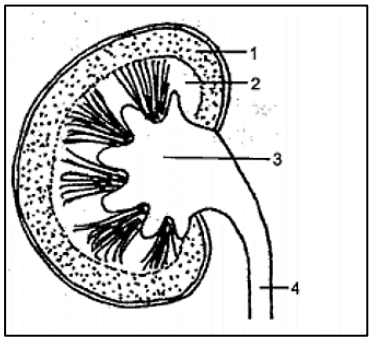
(a) Identify the convection currents (i) and (ii). [1]
(b) Explain the phenomenon (i) and (ii). [3]
(c) Define Convection. [1]

3) The picture given below is of a thermos flask. Give reasons for the following: [4]



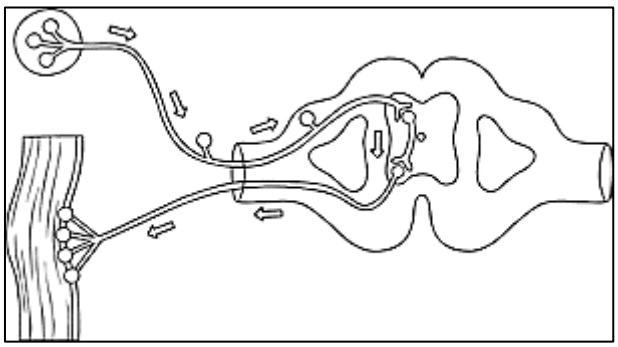
(a) A vacuum is created between the two walls of the flask.
(b) The two walls of the glass bottle are silver coated.
(c) The glass bottle is covered with a cork stopper.
(d) The glass bottle is placed on a cork pad.

4) Observe the figure given below and answer the questions that follow:



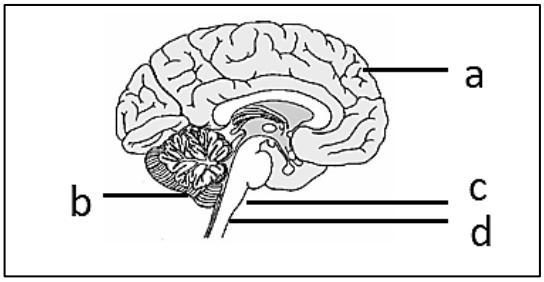
(a) Name the organ and the organ system with which it is associated in the human body. [1]
(b) Where is this organ exactly located? [1]
(c) Label all the parts as shown in the figure. [2]
(d) Give the function of part 4. [1]

5) The figure given below shows a response of Spinal cord. Observe and answer the questions that follow:



(a) Define the process as shown in the above picture. [1]
(b) What are the two types of this process? Give one example for each type. [3]

6) Given below is the figure of a human brain. Observe and answer the following questions:



(a) Label the parts a to d. [2]
(b) State functions of parts b and c. [2]
(c) Describe the internal structure of the largest part of this organ in brief. [2]
(d) How is the brain protected? [1]

Q.V) Draw a neat labelled diagram of the human eye. [3]
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