



Summative Assessment

General Science

Class - VIII

Time allowed: 3 hours

Maximum Marks: 90

General Instructions:

- All questions are compulsory.
- There are three Section – A, B and C. First two question of each section is of **1 marks** , 3rd and 4 is of **2 marks**, 5 and 6 is of **3 marks**, 6 and 8 is of **4 marks**, 9 and 10 is of **5 marks** questions.
- Read each question carefully and answer to the point.
- All parts of a question should be attempted together.

Section - A Physics (30 marks)

- Two forces 8N to the right and 3N to the left act on the body. What is the direction and magnitude (value) of the resultant force?
- Why does the atmosphere pressure decrease with altitude?
- A 5kg-wt box has a base area of $1m^2$. Find the pressure exerted by it on the ground. Take 1kg-wt=10N.
- Name and define the force that keeps the moon revolving around the earth. Is it a contact or non-contact force
- Sometimes you have to increase friction. State any three situations where it is necessary to do so?
- To increase loudness of the sound by four times, by how much should the amplitude of vibration be changed?
 - The time period of an oscillating pendulum is 2 seconds. What is its frequency?
- 'Friction is a necessary evil' comment.
- Explain briefly four ways to minimize friction.
- Define noise pollution. Mention its effects and suggest ways to reduce noise pollution.
- Classify the musical instruments into three types and explain how sound is produced in each case.
 - Describe an experiment to show that sound cannot travel through vacuum by means of a neat labeled diagram.

Section - B Chemistry (30 marks)



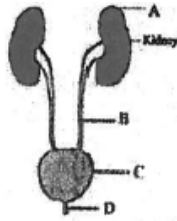
- Why is sodium stored under kerosene?
- X reacts with oxygen to form an oxide x_2O . The oxide is soluble in water turns red litmus blue. Identify whether X is a metal or a non-metal. Support your answer taking a chemical reaction as an example.
- What is meant by atomicity? Give one example each of a monoatomic and a diatomic molecule.
- Magnesium reacts with oxygen only if ignited. It gives a bright dazzling flame and forms a white powder. Write the balanced chemical equation and name the white powder formed.
- Complete the following equation and hence balance it
 $Na + O_2 \rightarrow$ _____
 $Mg + HCl \rightarrow$ _____
 $Al + HCl \rightarrow$ _____
- a) Substitute symbols for names and balance each of the chemical equation
(i) Hydrogen + Chlorine _____ Hydrogen chloride
(ii) Magnesium + Carbon dioxide _____ Magnesium oxide + carbon
b) Why are non-metallic oxide also called acidic oxides? Give an example of acidic oxide
- $CuSO_4 + Zn \rightarrow ZnSO_4 + Cu$
a) What type of reaction is this called? Why is it so called?
Give two more examples of such a reaction.
b) Why do copper vessels turn green with the passage of time
- a) Explain the formation of salts with two chemical reactions
b) $H_2 + O \rightarrow H_2O$ is a balanced chemical equation. It is considered to be incorrect. Why?
- Explain the working of an electrolytic cell with a neat labelled diagram.
- Explain with a neat labeled diagram the electroplating of copper on an iron key.

Section - C
Biology (35 marks)

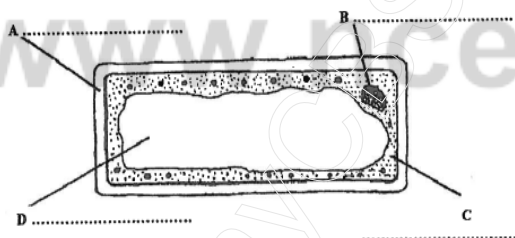
- Function of centriole is
a) Formation of spindle fiber
b) Nucleolus formation
c) Cell wall formation
d) Cell division initiation
- If the ribosomes stop working in a cell, which cellular process would be most directly affected?
a) Photosynthesis
b) Aerobic respiration
c) Protein synthesis
d) Excretion of cellular wastes
- a) "Increased activity of oil and sweat gland causes acne/ pimples in adolescents"

What type of food should be avoided during this age? Make a list of the foodstuff that should be included during this age?

- b) Identify the organ A and state its role in secretion?



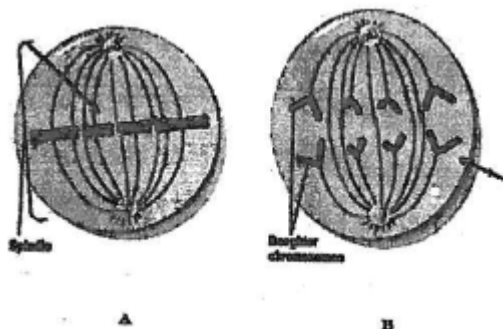
4. a) Asiatic lion and tiger are endangered species. Justify this statement.
b) What is a biosphere reserve? In which zone are no human activities allowed in biosphere reserve?
5. a) Which part of the cell is called as selectively permeable and why?
b) Arun observed two models when he visited biology lab. Model A was on 'heart' and Model B was on 'circulatory system.' To which level Model A and B belongs to in the level of organization in multicellular organisms? Differentiate these two level organizations.
6. a) List the events of G_1 phase of the cell cycle?
b) How is a chromosome in the G_1 phase different from a chromosome in the G_2 phase?
c) If 'you get sunburn' which type of cell division will occur to repair your skin? Explain?
7. a) State the difference between exocrine and endocrine gland? Give one example for each type of gland?
b) What is diabetes mellitus? Name the hormone responsible for this problem?
c) "Aman is eighteen years old. He has no facial hair nor has his voice deepened".
8. The diagram shows a plant cell. Observe the diagram and answer the following questions:



- a) Label A, B, C and D
b) Name two features shown in the diagram which are not normally associated with an animal cell.
c) Name the substance which makes up part A and what would happen if a plant cell lack the part labelled as A?
9. a) Many animals and plants are increasingly threatened due to many reasons. Discuss any two reasons.
b) Why should paper be saved? Give any two ways by which you can save paper.
c) An organization provides information about threatened species of plants and animals in the world in their Red list. In the list species are categorized into different categories depending on the risk of extinction. Name the organization and how this red list differ from a red data book.



10. Observe the diagrams and answer the questions.



- In what steps of cell division are these two cells?
- Write two characteristics for each of the stages?
- Name the stage of cell division which occurs after the steps B and give its one characteristic.
- How does cytokinesis differ in plant cell from an animal cell?

