SET - A

SAMAGRA SHIKSHA, KERALA ANNUAL EVALUATION 2023-24

BASIC SCIENCE

Class: VIII

Time: 2 h Score : 60

E - 806

Instructions

- The total cool off time for Physics, Chemistry and Biology is 15 minutes. Read the questions carefully and understand them during this time.
- Answers are to be written in the order, Physics, Chemistry and Biology. The time for each section is 40 minutes. The answer books must be returned to the teacher after writing each subject.

	Physics	Time: 40 min Score : 20
Ans	swer any <u>Three questions</u> from 1 to 4 . One score each.	(3 x 1 = 3)
1)	Identify the relation from the first pair and complete the second pair	. (1)
	Capacitance :: farad ; Electric charge ::	

The figure shows the lines of force between the poles of two bar magnets. Identify the poles represented by A and B.
 (1)



3.	Which is the unit of loudness?	(1)
	(m/s, dB, Hz, N)	
4.	From the following, identify the material that cannot be electrified by rubbing	
	(Plastic Pipe, Glass rod, Hacksaw blade, PVC pipe)	

Answer any Four questions from 5 to 9. Two score each.

- When an object is placed at a distance of 20 cm from a concave mirror, a real image of the same size is formed. What is the focal length of the mirror? (2)
- 6. Write down any two charecteristics of the magnetic lines of force around a bar magnet.
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(2)

 $(4 \times 2 = 8)$

7. A negatively charged rod is brought near an electroscope as shown in the figure.

Copy down the diagram and mark the distribution of electrtic charge formed at A and B.

- 8. Why do the astronauts use radio devices to communicate with one another? (2)
- Classify the physical quantities given in the box as fundamental quantities and derived quantities. (2)

 Index
 Index

 Fundamental quantities
 Derived quantities.

Answer any Three questions from 10 to 13. Three score each.

10. Observe the figure.



 a) Complete the ray diagram showing the image formation by drawing the path of reflected rays.
 (2)

b) Write down any two features of the image formed. (1)

- 11. Bats can travel in darkness. Do you agree with this statement? Justify your answer.(3)
- 12. Write down three precautions to be taken for protecting ourselves from lightning. (3)

13) Classify the following statements with respect to concave mirror and convex mirror.

(3)

- a) Used as make up mirror.
- b) Used as shaving mirror.
- c) Used as rear view mirror in vehicles.
- d) Used as reflectors in street lights.
- e) Used in solar concentrators.
- f) Placed on the side of curved roads.

Concave mirror	Convex mirror	

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 $(3 \times 3 = 9)$

(2)

SE	CHEMISTRY	E 806
Cla	ass: 8 Score : 20 Time : 40	Minutos
An		x 1 = 3)
1.	Choose the appropriate statement applicable to solid substances from the following.	(1)
1.	i) Energy of constituent particles is very high	(1)
	ii) Constituent particles have little freedom of movement	
	iii) Distance between constituent particles is very high	
2.	Identify the polymer from the following.	(1)
	(Glucose, Amino acid, Protein)	(-)
3.	Water drops assume spherical shape due to	(1)
4.	Plastic is used to store chemical substances. Which property of plastic is used here?	(1)
	Answer any 4 questions from 5 to 9. 2 Scores each (4	x 2 = 8)
5.	$Mg + O_2 \rightarrow MgO$	
	a) What are the reactants and products of this reaction?	(1)
	b) Balance the above chemical equation.	(1)
6.	Natural fibres and Synthetic fibres are used for the manufacture of clothes.	
	a) Give the name of a natural fibre.	(1)
	b) Write one merit of synthetic fibres.	(1)
7.	Water pollution is a burning issue now-a-days.	
	a) The deposition of biowastes in water resources results in the destruction of aquation	
	Why?	(1)
	b) Write a possible remedial measure to prevent water pollution.	• (1)
8.	Some chemical reactions are given. Choose the correct type of reaction to which the from the bracket.	y belong
	(Endothermic reaction, Photochemical reaction, Exothermic reaction)	
	a) Neutralisation reaction between sodium hydroxide and hydrochloric acid.	(1)
	b) Decomposition of potassium permanganate.	(1)
9.	a) Which one of the given metals reacts most vigorously with dil.HCl?	(1)
	(Zinc, Copper, Magnesium, Iron)	
	b) Which is the gas produced here?	(1)

Answer any 3 questions from 10 to 13. 3 Scores each.	(3 x 3 = 9)
 Equal quantity of water and coconut oil are taken in two separate beakers, heat th a water bath. 	em on
a) In which of the two substances temperature rises slowly in a specified time? Give reason.	(2)
b) Write one situation in which this property is made use of	(1)
11. The components of a mixture of chalkpowder and water can be separated using fi	ilter paper.
a) To Which type does this mixture belong?	(1)
(True solution, Colloid, Suspension)	
b) Write any two other characteristics of mixtures belonging to this type.	(2)
12. Three samples are given below.	
A - Water in which calcium sulphate is dissolved	
B - Distilled water	
C - Water in which magnesium bicarbonate is dissolved	
a) In which sample does soap lather readily?	(1)
b) Identify the sample in which soap lathers readily only on heating? Give reason	n. (2)
13. Poly vinyl chloride (PVC) is used for plumbing, production of rain coats, bottles e	tc.
a) Which type of plastic is this?	(1)
b) Write any one peculiarity of this type of plastic.	(1)
c) Write any one method that can reduce pollution due to plastic.	(1)

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SAMAGRA SHIKSHA, KERALA ANNUAL EVALUATION 2023-24 BIOLOGY

Standard: VIII

Time :40 minute Total Score: 20

Instructions:

- First 15 minutes is cool off time. This time is to be used for reading and understanding the questions.
- 2. Read the instructions carefully before writing the answers.
- 3. While writing the answers, score and time should be considered.

Answer any 3 from questions 1 to 4. 1 score each.

1. Name the cell organelle given below. Write its function.



- 2. Find out the odd one and write the common feature of others.
 - Endometrium
 Testis
 Prostate gland
 Vas deferens
- 3. Answer the questions related to the given food chain.

 $Grass \rightarrow Grasshopper \rightarrow Frog \rightarrow Snake$

- a) Which is the primary consumer of this?
- b) In which trophic level does snake belong to?
- 4. Identify the word relation and fill in the blanks.
 - a) Female sex hormone : Estrogen Male sex hormone : b) Bacteria : Binary fission Hydra :

Α

(1x 3 = 3)

Answer any 4 from questions 5 to 9. (2 Score each).

5. Complete the illustration related to biodiversity- services by using the given hints.



6. Observe the given figure and answer the questions.



- a) Identify and name the figure.
- b) Which cell organelle is found inside the part marked as 'X'? What is its importance?
- "It is not essential to protect indigenous varieties, when plenty of high quality hybrids are available."

Do you agree with this statement? Justify your opinion.

8. The relevant part of a science journal is given below. Analyse it and answer the questions.

A decrease in the level of haemoglobin in the blood of adolescent children can cause a loss of memory and concentration.

- a) Which disease condition is mentioned here? Deficiency of which element causes this condition?
- b) What are the changes to be made in the food habit of adolescents to prevent this disease condition?

2

1

9. Analyse the illustration and fill in the blanks.



Answer any 3 from questions 10 to 13. (3 score each.)

10. Complete the table related to ecological interactions in the ecosystem.

Interactions	Peculiarities	Example
Parasitism	a)	b)
c)	Beneficial to one and is neither beneficial nor harmful to the other.	d)
e)	f)	Flower and butterfly

11. Analyse the statement related to five kingdom classification and answer the questions.

Some bacteria belonging to kingdom monera are different from other bacteria in cell structure and physiological functions.

- a) Which bacteria is indicated here?
- b) What modification was made in the five kingdom classification to include this bacteria?
- c) Name the scientist who proposed this modification? Which level of classification above the kingdom was proposed by him?

12. Answer the given questions related to biodiversity conservation.

- a) In which conservation method, organisms are protected in their natural habitats?
- b) Choose examples related to this conservation method, from the given list.
 - National park
 Ecological hotspot
 - Botanical garden
 Gene bank

c) Name two organisations with the objective of protecting biodiversity.

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 $[3x \ 3=9]$

3

1

1

13. Observe the figure and answer the questions.



1

1

- a) Identify the parts labelled as 'X', 'Y' in the given figure.
- b) What is the function of part 'X'?
- c) What are the peculiarities of the cell produced from part 'Y'?