पुऊना International School
Shree Swaminarayan Gurukul, Zundal

HALF YEARLY (2020 - 21)					
Student's Name:		**Grade**	**X**	**Roll No.**	
Date:	**07/09/2020 (Monday)**	**Time**	**3 hrs.**	**Subject**	**Science**
Teacher's Sign.				**Total Marks**	**80**

GENERAL INSTRUCTION:

The question paper contains 5 sections

Section A : One marks questions
Section B : Two marks questions
Section C : Three marks questions
Section D : Five marks questions
Section E : Practical based skills ,two marks question

SECTION A :

1 Break down of pyruvate to give carbon-di-oxide water and energy takes place in _____ .
2 Name the male gamete in human beings

SECTION B :

3 A solution of a substance 'X' is used for white washing

a) Name the substance 'X' and writes its formula.
b) Write the reaction of the substance 'X' named in (i) above with water

4 Name a device that helps to maintain a potential difference across a conductor
5 The radius of curvature of a spherical mirror is 20 cm. What is its focal length?

SECTION C :

6 (a) Write two points of difference between electric energy and electric power.
(b) What is the commercial unit of electric energy? Convert it into joules.

7 What is a neutralization reaction? Give two examples.

8 Explain the following in terms of gain and loss of oxygen with two examples each?
a) Oxidation
b) Reduction

9 Which gas is usually liberated when an acid reacts with a metal? Illustrate with an example. How will you test for the presence of this gas?

10 A convex lens forms a real and inverted image of a needle at a distance of 50cm from it. Where is the needle placed in front of the convex lens if the image is equal to the size of the object? Also, find the power of the lens.

11 What is the importance of DNA copying in reproduction?.

12 a) What is meant by electric current? Name and define its SI unit
b) Which instrument is used for measuring electric current ?

13a)What is the common name of the compound $CaOCl_2$?
b) Write an equation to show the reaction between plaster of Paris and water.

14 Why is vegetative propagation practiced for growing some types of plants ?.
15 How does the embryo get nourishment inside the mother's body ?.

SECTION D :

16 Draw a labeled diagram of longitudinal section of a flower.
17 .Write the balanced chemical equation for the following and identify the type of reaction in each case.

a) Potassium bromide (s) + Barium iodide (aq) $\rightarrow$ Potassium iodide (aq) + Barium bromide(s)

b) Zinc carbonate (s) $\rightarrow$ Zinc oxide (s) + Carbon dioxide (g)

c) Hydrogen (g) + Chlorine (g) $\rightarrow$ Hydrogen chloride (g)

d) Magnesium (s) + Hydrochloric acid (aq) $\rightarrow$ Magnesium chloride (aq) + Hydrogen (g)

18 a) How are fats digested in our bodies ? Where does this processes takes place?.
b) What is the role of saliva in the digestion of food?.

OR

Explain binary fission in amoeba . Draw and label the diagram.

19 State Ohm's law. Write the necessary conditions for its validity. How is this law verified experimentally? What will be the nature of graph between potential difference and current for a conductor?

20 A concave mirror produces three times magnified(enlarged) real image of object placed at 10 cm in front of it. Where is the image located?

21a) What are the components of transport system in highly organized plants ?
b) What are the components of transport system in human beings ?

SECTION E

22 You have been provided with three test tubes. One of them contains distilled water and the other two contain an acidic solution and a basic solution, respectively. If you are given only red litmus solution, how will you identify the contents of each test tube?.

23 A compound X of sodium is commonly used in kitchen for making crispy pakoras. It is also used for curing acidity in the stomach. Identify 'X'. What is its chemical formula? State the reaction that takes places when it is heated during cooking?

24Observe the following chart carefully

a) Identify the organism
b) Which method of asexual reproduction is observed by you?

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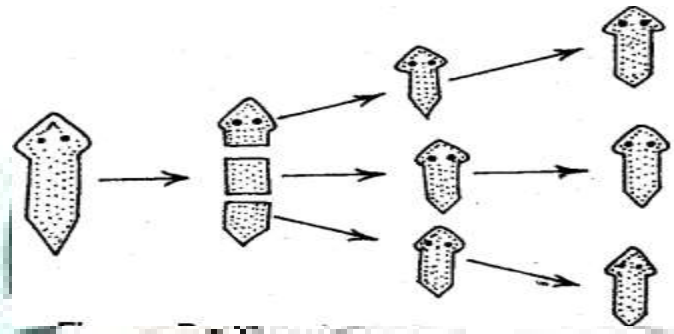

25A student took 2-3 g of a substance X in a glass beaker & poured water over it slowly. He observed bubbles along with hissing noise. The beaker becomes quite hot. Identify X. What type of reaction is it?

26 Suppose the ammeter or voltmeter you are using in the Ohm's law experiment does not have +ve and –ve terminal markings. How will you use such ammeter or voltmeter in the circuit?

27While performing an experiment to study the dependence of current on the potential difference across two ends of the resistor, a student keeps the circuit closed for a long time to measure the current and potential difference. State how the resistance of the resistor will be affected?