PT-2/HALF YEARLY EXAMINATION, 2022-23

SCIENCE

Time - 07:15 AM to 10:20 PM **Class - VII** **M.M. : 80**

Date – 07.09.2022 (Wednesday)

Name of the student _____ Section _____

General Instructions :

- All the questions are compulsory.
- There are two sections in this question paper – Section A - Objective section and Section B - Subjective section.
- Section A contains 24 questions of 1 mark (Q.1 to 18) and 2 marks (Q. 19 to 24)
- Section B contains 14 questions of 3 mark (Q25 to Q32), 4 marks (Q33 to Q36) and 5 marks (Q37 and Q38).

SECTION - A

Multiple Choice Questions:

Q.1 The plant which traps and feeds on insects is:

(a) Cuscuta (b) Rose (c) Pitcher plant (d) Sunflower

Q.2 The raw materials of photosynthesis are:

(a) Carbohydrates and oxygen (b) Carbon dioxide and hydrogen

(c) Carbon dioxide and water (d) Carbon dioxide and oxygen

Q.3 The tiny pores present on the leaves for exchange of gases are called as:

(a) Chloroplast (b) Petiole (c) Stomata (d) Pedicel

Q.4 In buccal cavity, starch is broken down into sugar by the action of:

(a) Saliva (salivary amylase) (b) Bile juice (c) Hydrochloric acid (d) All of these

Q.5 Read carefully the terms given below. Which of the following set is the correct combination of organs that do not carry out any digestive functions?

(a) Oesophagus, large intestine, rectum (b) Buccal cavity, oesophagus, rectum

(c) Buccal cavity, oesophagus, large intestine (d) Small intestine, large intestine, rectum

Q.6 What is the range of the temperature scale of a laboratory thermometer?

(a) –10°C to 110°C (b) 35°C to 42°C (c) –20°C to 100°C (d) –10°C to 150°C

Q.7 Which among the following is NOT a chemical change?

(a) Cutting a log of wood in small pieces (b) Burning of wood

(c) Ripening of fruit (d) Cooking of food

Q.8 A simple pendulum takes 42 seconds to complete 20 oscillations. What is its time period?

(a) 2.1 s (b) 4.2 s (c) 21 s (d) 8.40 s

Q.9 Choose the correct option to complete the chemical equation.

Carbon dioxide (CO_2) + Lime water [$Ca(OH)_2$] → _____ + Water (H_2O)

(a) Calcium Carbonate ($CaCO_3$) (b) Magnesium carbonate ($MgCO_3$)

(c) Sodium carbonate (Na_2CO_3) (d) Zinc carbonate ($ZnCO_3$)

Q.10 Heat energy will flow from body 'P' to body 'Q' if:

(a) Q is at higher temperature than P. (b) P is at higher temperature than Q.

(c) Both are at same temperature. (d) Heat energy does not flow.

Q.11 If the chemical properties of a substance remain unchanged and only its appearance or shape changes, it is called a

(a) Chemical change (b) Physical change

(c) Both physical and chemical changes (d) Neither physical nor chemical change

Q.12 Tartaric acid is found in:

(a) Vinegar (b) Tamarind (c) Spinach (d) Curd

Q.13 When the soil is too basic, plants do not grow well in it. To improve its quality what must be added to the soil?

(a) Organic matter (b) Quick lime (c) Slaked lime (d) Calamine solution

Q.14 A bus travels 54 km in 90 minutes. The speed of the bus in m/s is:

(a) 0.6 m/s (b) 10 m/s (c) 5.4 m/s (d) 3.6 m/s

Q.15 The false feet of Amoeba are used for:

(a) Movement only (b) Capture of food only

(c) Capture of food and movement (d) Exchange of gases only

Q.16 Ammonium hydroxide that turns red litmus to blue is:

(a) Acidic (b) Basic (c) Neutral (d) None of these

Q.17 Galvanization is a process used to prevent the rusting of which of the following?

(a) Iron (b) Zinc (c) Sodium (d) Gold

Q.18 A beggar wrapped himself with a few layers of newspaper on a cold winter night. This helped him to keep himself warm because:

(a) Friction between the layers of newspaper produces heat.

(b) Air trapped between the layers of newspaper is a bad conductor of heat.

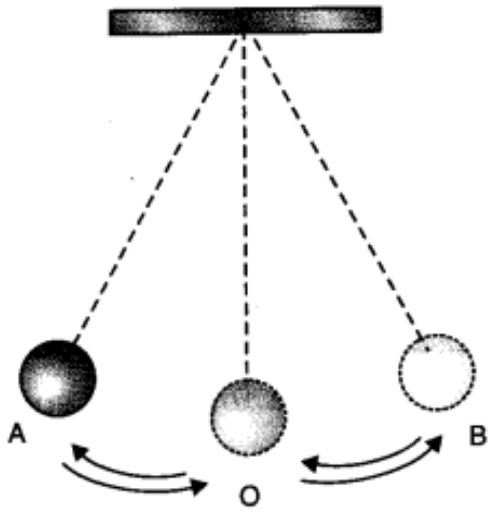
(c) Newspaper is a conductor of heat.

(d) Newspaper is at a higher temperature than the temperature of the surrounding.

Q.19 On adding phenolphthalein indicator to a colorless solution, no change is observed. The nature of the solution may be: (2)

(a) Both acidic & basic (b) Basic (c) Acidic or neutral (d) None of these

Q.20 Observe the figure given below: (2)



The time period of a simple pendulum is the time taken by it to travel from:

(a) A to B and back to A (b) O to A, A to B and B to A

(c) B to A, A to B and B to O (d) A to B

Q.21 Fill in the blanks with the appropriate word. (1x2=2)

(a) Lichens has a _____ colour in distilled water.

(b) A brown layer formed when an iron article is left exposed in an open area is called ___.

Q.22 Give one word answer for the questions given below. (1x2=2)

a) An indicator that turns acidic solutions to dark pink (magenta) and basic solutions to green.

b) The process in which crystals of pure substances can be obtained from their solutions.

Q.23 Tick the statements as true or false (T/F). (0.5 x 4=2)

a) The bodies of living organisms are made of tiny units called as cell.

b) Digestion of starch starts in the stomach.

c) Sun is the ultimate source of energy for all living organisms.

d) Nitric acid turns red litmus blue.

Q.24 Match the following: (0.5 x 4=2)

Column I		**Column II**	
a.	Odometer	i.	Sugar products
b.	Speed	ii.	Heterotrophs
c.	Animals	iii.	Distance moved
d.	Tooth decay	iv.	distance/time

SECTION - B

Q.25 Describe a symbiotic relationship which is beneficial for farmers. (3)

Q.26 Why do organisms need to take food? (3)

Q.27 Discuss the various associated glands of digestive system and their role in digestion. (3)

Q.28 Define the term Nutrition and write the steps (processes) involved in nutrition in human beings? (3)

Q.29 What is the normal human body temperature in Celsius scale? Convert it into Fahrenheit scale by using conversion formula. (3)

Q.30 What is radiation? Write two properties of an object on which radiation depends. (3)

Q.31 Describe the process of neutralization reaction with the help of an example. (3)

Q.32 What are indicators? Give two examples of natural indicator. (3)

Q.33 Write any 4 differences between acids and bases. (4)

Q.34 Write two similarities and two differences between clinical and laboratory thermometer. (4)

Q.35 a) Identify physical and chemical changes in a burning candle. (2)

b) Write two characteristics of chemical changes. (2)

Q.36 a) Define one oscillation for simple pendulum. (1)

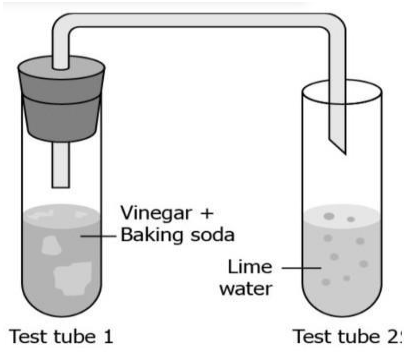
b) The odometer of a car reads 57321.0 km when the clock shows the time 08:30 AM. What is the distance moved by the car, if at 08:50 AM, the odometer reading has changed to 57336.0 km? Calculate the speed of the car in km/min during this time. (3)

Q.37 Draw a well labeled diagram of land breeze and sea breeze. (5)

OR

Draw a well labeled diagram of clinical thermometer. (any 4 labels)

Q.38 Observe the given setup and answer the following questions -



a) Name the gas evolved during the demonstrated chemical reaction from test tube 1. (1)

b) Write down observation when the evolved gas mixes with lime water in test tube 2. (1)

c) Identify and write the type of change seen in the given figure. (1)

d) Write the reaction in the form of word/chemical equation for the changes seen in both test tube 1 and test tube 2. (2)