



# NPET'S ENGLISH MEDIUM SCHOOL

## CLUB ROAD BELGAUM

Formative assessment – II 2024-25

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### PHYSICS:

1. Differentiate between a uniform and non-uniform motion.
2. Give the basic unit of time.
3. What is oscillatory motion?
4. What is motion?
5. The distance between two stations is 240km. A train takes 4 hours to cover this distance. Calculate the speed of the train.
6. A simple pendulum takes 32 s to complete 20 oscillations. What is the time period of the pendulum?
7. What is speed?
8. What is the use of speedometer?
9. State the formula of average speed of an object.
10. Salma takes 15 minutes from her house to reach her school on a bicycle. If the bicycle has a speed of 2 m/min, calculate the distance between her house and the school.
11. Define linear, circular and periodic motion with examples.
12. Fill in the blanks:
  - a. The S.I unit of speed is \_\_\_\_\_
  - b. The resting position of a bob of pendulum is called \_\_\_\_\_ position.
  - c. When a body does not change its position with respect to its surrounding it is said to be at \_\_\_\_\_
  - d. Speed of a motor vehicle is measured by an instrument called \_\_\_\_\_
  - e. Distance travelled by a vehicle is measured by an instrument called \_\_\_\_\_
  - f. Time taken by a pendulum to complete one oscillation is called \_\_\_\_\_

### CHEMISTRY

1. Classify the changes involved in the following processes as physical or chemical changes.
  - (a) Photosynthesis
  - (b) Dissolving sugar in water
  - (c) Burning of coal

- (d) Melting of wax
- (e) Beating aluminum to make aluminum foil
- (f) Digestion of food

2. State whether the following statements are true or false. In case a statement is false, write the corrected statement in your notebook.

- (a) Cutting a log of wood into pieces is a chemical change. (True/False)
- (b) Formation of manure from leaves is a physical change. (True/False)
- (c) Iron pipes coated with zinc do not get rusted easily. (True/False)
- (d) Iron and rust are the same substances. (True/False)
- (e) Condensation of steam is not a chemical change. (True/False)

3. Fill in the blanks in the following statements:

(a) When carbon dioxide is passed through lime water, it turns milky due to the formation of \_\_\_\_\_.

(b) The chemical name of baking soda is \_\_\_\_\_.

(c) Two methods by which rusting of iron can be prevented are \_\_\_\_\_ and \_\_\_\_\_.

(d) Changes in which only \_\_\_\_\_ properties of a substance change are called physical changes.

(e) Changes in which new substances are formed are called \_\_\_\_\_ changes.

4. When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas. What type of change is it? Explain.

5. When a candle burns, both physical and chemical changes take place. Identify these changes. Give another example of a familiar process in which both chemical and physical changes take place.

6. How would you show that the setting of curd is a chemical change?

7. Explain why burning wood and cutting it into small pieces are considered two different types of changes.

8. Describe how crystals of copper sulphate are prepared.

9. Explain how painting an iron gate prevents it from rusting.

10. Explain why rusting of iron objects is faster in coastal areas than in deserts.

11. The gas we use in the kitchen is called liquified petroleum gas (LPG). In the cylinder, it exists as a liquid. When it comes out from the cylinder, it becomes a gas (Change – A) then it burns (Change – B). The following statements pertain to these changes. Choose the correct one.

(i) Process – A is a chemical change.

(ii) Process – B is a chemical change.

- (iii) Both processes A and B are chemical changes.  
 (iv) None of these processes is a chemical change.
12. Anaerobic bacteria digest animal waste and produce biogas (Change – A). The biogas is then burnt as fuel (Change – B). The following statements pertain to these changes. Choose the correct one.
- (i) Process – A is a chemical change.  
 (ii) Process – B is a chemical change  
 (iii) Both processes A and B are chemical changes.  
 (iv) None of these processes is a chemical change.

## **BIOLOGY**

1. Fill in the blanks:
- (a) The main steps of nutrition in humans are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- (b) The largest gland in the human body is \_\_\_\_\_.
- (c) The stomach releases hydrochloric acid and \_\_\_\_\_ juices which act on food.
- (d) The inner wall of the small intestine has many finger-like outgrowths called \_\_\_\_\_.
- (e) Amoeba digests its food in the \_\_\_\_\_.
2. Mark 'T' if the statement is true and 'F' if it is false:
- (a) Digestion of starch starts in the stomach. (T/F)  
 (b) The tongue helps in mixing food with saliva. (T/F)  
 (c) The gall bladder temporarily stores bile. (T/F)  
 (d) The ruminants bring back swallowed grass into their mouth and chew it for some time. (T/F)
3. Tick (✓) mark the correct answer in each of the following:
- (a) Fat is completely digested in the  
     (i) stomach   (ii) mouth   (iii) small intestine                      (iv) large intestine
- (b) Water from the undigested food is absorbed mainly in the  
     (i) stomach   (ii) food pipe (iii) small intestine                      (iv) large intestine
4. Match the items of Column I with those given in Column II:

Column- I	Column- II
Food components	Product(s) of digestion

Carbohydrates	Fatty acids and glycerol
Proteins	Sugar
Fats	Amino acids

5. What are villi? What is their location and function?
6. Where is the bile produced? Which component of the food does it help to digest?
7. Name the type of carbohydrate that can be digested by ruminants but not by humans. Give the reason also.
8. Why do we get instant energy from glucose?
9. Which part of the digestive canal is involved in:
  - (i) absorption of food \_\_\_\_\_.
  - (ii) chewing of food \_\_\_\_\_.
  - (iii) killing of bacteria \_\_\_\_\_.
  - (iv) complete digestion of food \_\_\_\_\_.
  - (v) formation of faeces \_\_\_\_\_.
10. Write one similarity and one difference between nutrition in amoeba and human beings.
11. Match the items of Column I with suitable items in Column II

Column-I	Column-II
a) Salivary gland	(i) Bile juice secretion
b) Stomach	(ii) Storage of undigested food
c) Liver	(iii) Saliva secretion
d) Rectum	(iv) Acid release
e) Small intestine	(v) Digestion is completed
f) Large intestine	(vi) Absorption of water
	(vii) Release of faeces

12. Draw a neat labelled diagram of digestive system.
13. Can we survive only on raw, leafy vegetables/grass? Discuss.