



परमाणु ऊर्जा शिक्षण संस्था

Atomic Energy Education Society

आवधिक परीक्षण-II अभ्यास पत्र / PT-II Practice Paper (2025-26)

कक्षा / Class: VII विषय / Subject: Science माह / Month: January अंक / Marks: 40
उत्तर कुंजी / ANSWER KEY

SECTION A

Multiple Choice Questions

Choose the correct option.

(1x10=10M)

1. b) Increase in oily secretions from the skin

The development of pimples, commonly known as acne, is primarily due to an increase in oily secretions from the skin during adolescence, which can clog pores and lead to infections. Other factors like lack of sleep or excessive washing do not directly cause pimples.

2. c) Conduction

Conduction is the process of heat transfer through direct contact in solids, where particles vibrate and pass heat to neighbouring particles.

3. b) Sundial

A sundial uses the Sun's shadow to show the time of day as the Sun moves across the sky.

4. a) Time to swing once

The time period is the time a pendulum takes to complete one full swing, from one side to the other and back.

5. b) Peristalsis

Peristalsis is the wave-like muscle contractions that push food through the food pipe,

6. b) Alveoli

Alveoli are tiny air sacs in the lungs where oxygen and carbon dioxide are exchanged.

7. b) Speedometer

A speedometer shows a vehicle's speed in km/h, like how fast a car is moving

8. c) Evaporation

Evaporation is the process where water turns into vapor due to the Sun's heat, a key part of the water cycle.

9. b) Menstruation

Menstruation is the phase of the menstrual cycle where blood is discharged, signalling reproductive maturity in girls.

10. b) Fish

Fish use gills to extract oxygen from water, as mentioned in the notes about respiration in other animals.

SECTION B

Assertion Reason Questions.

(1x4=4M)

11. (c) A is true, but R is false.

Explanation: Adolescence brings not just physical changes, but also emotional and behavioural transformations.

12. (a) Both Assertion and Reason are true, and Reason is the correct explanation for the Assertion.

13. (c) A is true, but R is false.

Explanation: The time period of a pendulum depends on its length, not the mass of the bob.

14. (a) Both A and R are true, and R is the correct explanation of A.

Explanation: The enzyme amylase in saliva starts breaking down starch into sugars in the mouth.

SECTION C

15. Case based questions.

(1x4=4M)

i) (c) Presence of starch

Explanation: Iodine reacts with starch to give a blue-black colour.

ii) (b) Saliva converted starch to sugar

Explanation: Enzymes in saliva converted the starch to sugar, which does not react with iodine.

iii) (c) Amylase

Explanation: Amylase breaks down starch into simpler sugars in the mouth.

iv) (c) Saliva begins digestion of starch

Explanation: The experiment confirms that starch digestion starts in the mouth due to saliva.

SECTION D

Short Answer Type – I

(2X5=10M)

Answer the following questions.

1. Secondary sexual characteristics are features that distinguish males from females and mark the onset of puberty, such as voice changes in boys and breast development in girls.

2. There is a lot of concern over the use of mercury in thermometers. Mercury is a toxic substance and is very difficult to dispose of if a thermometer breaks.

3. An object that moves in a straight line at a constant speed is described as being in uniform motion. This means: The speed does not change over time. The distance covered is proportional to the time taken. The motion can be represented by a straight line on a distance-time graph.

4. The pancreatic juice plays a crucial role in digestion by acting on:

Carbohydrates - breaking them down into simpler sugars.

Fats - converting them into fatty acids and glycerol.

Proteins - transforming them into amino acids.

Overall, pancreatic juice helps in simplifying these food components for better absorption in the body.

5. The voice box (larynx) grows larger, and the vocal cords lengthen, leading to a deeper, hoarser voice, which is one of the secondary sexual characteristics in boys.

Short Answer Type – II

(3X4=12M)

1. Puberty is a critical stage in adolescence where the body undergoes both external and internal changes that prepare it for reproduction. It marks the transition from childhood to adulthood. In girls, puberty is associated with the start of menstruation, which is a key indicator of reproductive capability. In boys, puberty involves the development of secondary sexual characteristics like facial hair and a deeper voice, signalling the body's readiness for reproduction. Puberty involves hormonal changes that drive these physical transformations, preparing individuals for adulthood.

2. Heat from the sun reaches us by radiation, which does not require a medium to transfer heat. Unlike conduction (which occurs in solids) and convection (which occurs in liquids and gases), radiation can transfer heat even through the vacuum of space.

3. Motion of an object in a circular path is called circular motion eg. the Motion of the hands of a clock. But when an object repeats its motion after some time. This type of motion is called periodic motion. E.g. Motion of a pendulum, motion of a child on a swing, motion of the strings of a guitar.

4. There are different types of enzymes which are used for the digestion of different food materials like carbohydrates, fats, protein etc. The process of digestion involves the association of several catalytic organic compounds such as amylase, pepsin, lipase, trypsin etc. These organic compounds are known as digestive enzymes.