Ei CARES

Science

QUESTION PAPER

Maximum Marks:40

PERIODIC TEST

CLASS	SECTION	EXAM CODE
7	ROSE	4200141
7	TULIP	4200131

SCHOOL

Him Academy Public School - Hira Nagar

1. There are 28 questions in this paper. 20 of these are with options and 8 are without options. All are compulsory.
2. The questions with options carry 1 mark each. The marks for questions without options have been mentioned beside it.
3. Please check your answers carefully before submitting the test. Once submitted, the answers cannot be changed.

SECTION A

Q: 1 **What is the role of chlorophyll in photosynthesis?**

1. It helps the leaves to release oxygen.
2. It helps the leaves to capture carbon dioxide.
3. It helps the leaves to capture the energy of sunlight.
4. It helps in the transport of water and minerals to the leaves.

Q: 2 **The presence of which of these in leaves is DEFINITE proof that photosynthesis has taken place?**

1. water
2. chlorophyll
3. carbon dioxide
4. starch

Q: 3 **Which one of the following is a parasite?**

1. Lichen
2. *Cuscuta*
3. Pitcher plant
4. *Rhizobium*

Q: 4 **Which of the following provides the energy required by a plant to make its food?**

P - water
Q - oxygen
R - sunlight
S - carbon dioxide

1. only R
2. only P and R
3. only Q and S
4. only Q, R and S

Q: 5 **The 24 hours of a day has been divided into three parts as shown below.**

Part P: 12 AM to 5 AM
Part Q: 5 AM to 8 PM
Part R: 8 PM to 12 AM

During which of the above parts of the day in India would a tomato plant be making its own food?

1. only during Part P
2. only during Part Q
3. only during Parts P and Q
4. during all Parts - P, Q and R

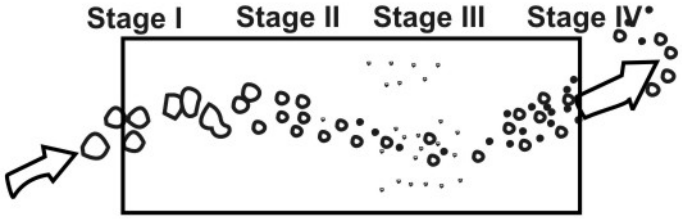
Q: 6 **Which of the following is/are an example/s of saprotrophic mode of nutrition?**

P) Rhizopus, a fungus, growing on bread
Q) stored grains infected with mucor, a fungus
R) mushrooms growing on wet wood

1. only R
2. only Q
3. both P and Q
4. all - P, Q and R

Q: 7 **Shown below is the schematic diagram of the process of digestion and the digestive system. Food particles are shown entering the digestive system and getting digested.**

At which stage in this process are the food particles likely to be absorbed?



1 Stage I **2** Stage II **3** Stage III **4** Stage IV

Q: 8 **Simon was standing on his head and trying to eat. Will the food be able to reach his stomach?**

1 No, because when one is standing on his head, only the windpipe is open and food will go to the lungs.
2 Yes, because the muscles in the food pipe will help the food travel towards the stomach.
3 No, because the gravitational pull of the Earth won't allow food to travel upwards.
4 Yes, because the stomach sucks in all the food that is eaten.

Q: 9 **The tongue is a muscular organ with one end fixed to the base of the mouth.**

Listed below are the possible roles that the tongue can play in digestion. Which of these is/are correct?

P. It moves the food around the mouth so that the food can be broken down by the teeth.
Q. It helps to taste the food.
R. It produces saliva to moisten the food in the mouth.
S. It pushes the food down the throat.

1 only Q **2** only P and S **3** only Q and R **4** only P, Q and S

Q: 10 **The liver and pancreas pour their juices into the small intestine, where they help to break down food.**
Which of the following statements about the food we eat is TRUE?

1 It passes only through our liver.
2 It passes only through our pancreas.
3 It passes through both our liver and pancreas.
4 It will not pass through either our liver or pancreas.

Q: 11 **Most of the water from the undigested food is absorbed by _____.**

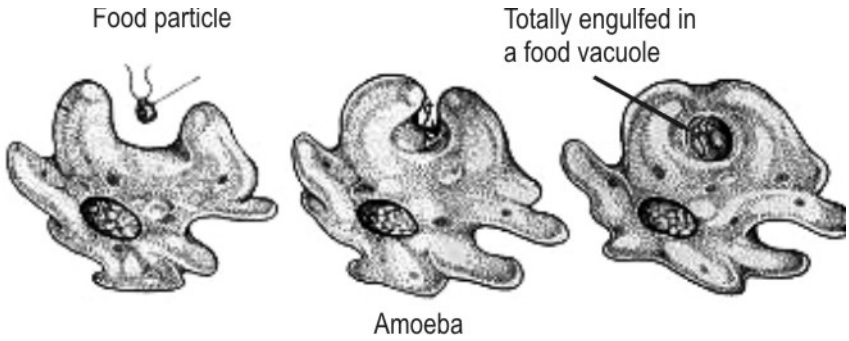
1 small intestine **2** large intestine **3** stomach **4** liver

Q: 12 **Two statements are given below. One is labelled Assertion (A) and the other is labelled Reason (R). Read the statements carefully and choose the option that correctly describes statements A and R.**

Assertion (A): In cud chewing animals, food is sent back to the mouth to absorb nutrients from the partially digested food.
Reason (R): Digestion of food begins in the mouth in ruminants.

1. Both A and R are true, and R is the correct explanation of A.
2. Both A and R are true, and R is NOT the correct explanation of A.
3. A is true, but R is false.
4. A is false, but R is true.

Q: 13 **The diagram below shows how amoeba captures and digests food.**



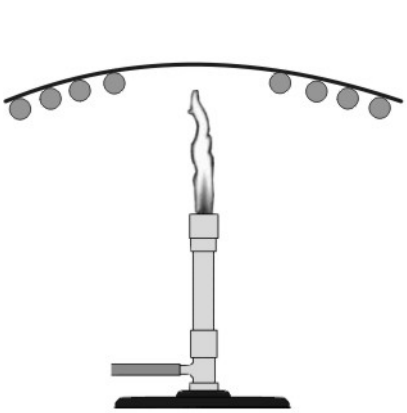
The amoeba captures food in a food vacuole. The food gets digested and absorbed in the food vacuole.

In humans, which of the following organ(s) perform(s) a similar function as the food vacuole?

P) liver
Q) stomach
R) pancreas
S) small intestine

1. only S
2. only Q and S
3. only P and R
4. all - P, Q, R and S

Q: 14 **A student conducted an experiment as shown below. On a steel plate he stuck wax pieces in four rows as shown in the diagram. He labelled the rows P,Q,R and S. He then heated the plate using a bunsen burner at the centre of the plate at point O.**



Side view

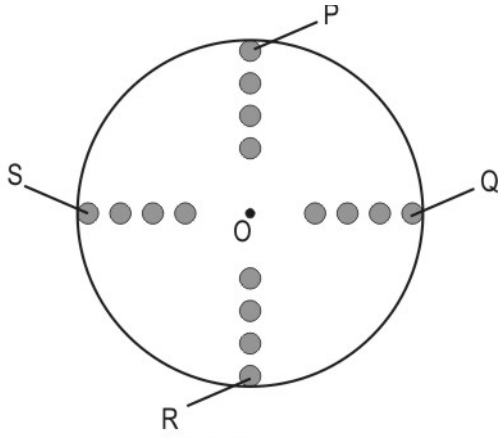


Plate bottom view

What is the student likely to observe after some time?

1 any one of the rows of wax will melt and fall off the plate
2 either rows P and R or S and Q will melt and fall of the plate
3 all four rows of wax will melt and fall of the plate at the same time
4 none of the rows of wax will melt as the plate is heated at the centre

Q: 15 **Neha was heating a vessel of water, when she noticed some dust particles in the water. She saw the particles rising and falling in a slightly circular pattern in the water. The movement of particles occurs due to _____.**

1 radiation **2** convection **3** conduction **4** evaporation

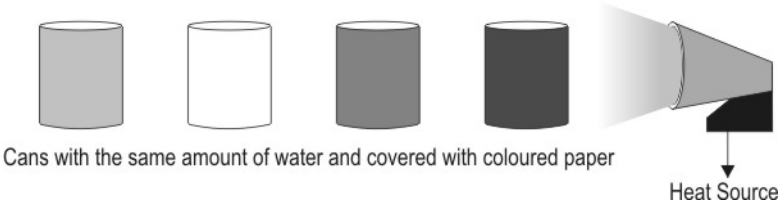
Q: 16 **There are two cups containing hot water at different temperatures. The BEST way to find out which of these two cups of water is hotter is to _____.**

1 see which one gives out more steam
2 dip fingers in the two cups and feel their temperature
3 dip thermometers in the cups to find their temperature
4 drop an ice cube in each cup and check in which it melts faster

Q: 17 **On cold nights, some people light fire in their fireplaces. How would that help to keep warm?**

1 Cold air is pushed away by the smoke arising from burning wood.
2 The fire brings down the hot air from upper layers of the atmosphere.
3 The fire heats up the surrounding air molecules thus keeping people warm.
4 The energy of the light does not have heat but it helps us keep warm .

Q: 18 **Kamlesh conducts the following activity to check if colour has any effect on heat absorption.**
He takes four identical cans with the same amount of water but covered with different coloured papers and places them near a heat source as shown in the figure. The temperature of the water in the cans is measured at regular intervals.



The MISTAKE in Kamlesh's experiment relates to_____.

1. the amount of water being the same in each can
2. the position of the cans with respect to the heat source
3. the use of paper of different colours to cover all the cans
4. taking temperature readings at the same time in all the cans

Q: 19 **Which of the following objects can radiate heat?**

- a lighted candle
- a cup of hot tea
- an ice cube

1. only a lighted candle
2. only a hot cup of tea
3. only a lighted candle and a hot cup of tea
4. all - a lighted candle, a hot cup of tea and an ice cube

Q: 20 **Two statements are given - one labelled Assertion (A) and the other labelled Reason (R). Read the statements carefully and choose the option that correctly describes statements A and R.**

Assertion (A): Heat energy is transferred between two bodies due to a temperature difference between them.
Reason (R): When we heat a substance, its temperature rises.

1. Both A and R are true and R is not the correct explanation for A.
2. Both A and R are true and R is the correct explanation for A.
3. A is true, R is false.
4. A is false, R is true.

SECTION B

Q: 21 **Plant leaves make food only in the presence of sunlight.** **[2]**

If an animal eats a plant during the night when it is dark, will the animal get nutrition from the plant? Support your answer with reason.

Q: 22 **The image below shows a pitcher plant.** **[2]**

(a) Which part of the plant is modified to form the 'pitcher'?
(b) What nutrient do these plants mainly obtain through the pitcher?

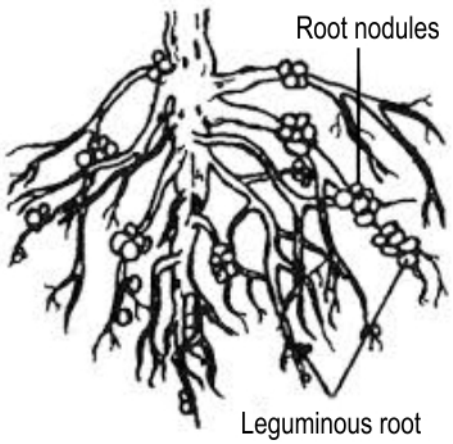
Q: 23 **The small intestine has a number of finger-like projections.** **[2]**

(a) What are these structures called?
(b) Describe how these structures are structurally adapted to perform their function.

Q: 24 **Prakash dropped a piece of bread in a dry test tube A. He then chewed another piece of bread and dropped it in another test tube B. He added iodine solution to both the test tubes. Write the most probable observation that can be seen in:** **[2]**
(a) test tube A
(b) test tube B

SECTION C

Q: 25 **Look at the image given below of a leguminous root with root nodules on it and answer the following questions.** **[3]**



(a) Explain how the bacteria in the root nodules help the plant to obtain nutrition.

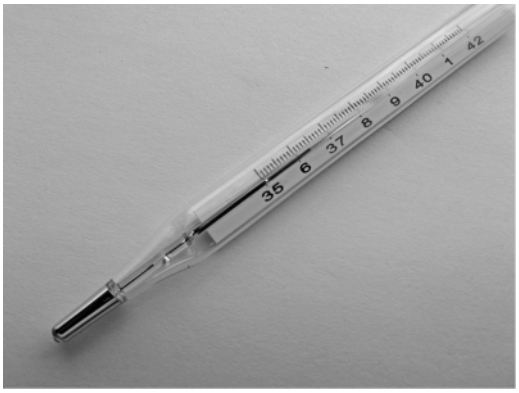
(b) Name the bacteria that helps in the process mentioned in (a).

(c) What is the term used to describe this relationship between the bacterium and the plant?

Q: 26 **Prasad had a liver-related health problem and was not able to digest a particular nutrient well. His doctor, therefore, advised him to have more of boiled food till his liver regained health.** **[3]**

(a) What nutrient is he most likely having a problem digesting?
(b) What is the secretion of the liver known as?
(c) The secretion of the liver is sometimes temporarily stored in the human body. Where is it stored?

Q: 27 **Answer the questions about the clinical thermometer shown below.** **[3]**



(a) Identify the scale of temperature marked on the thermometer.

(b) State the range of temperature measured by the thermometer.

(c) State the normal temperature of the human body.

(d) Can this thermometer be used to measure the room temperature? Give one reason for your answer.

Q: 28 **Air rising from the sea is replaced by air from the land.** **[3]**

Identify the following based on the statement given above:

(a) time of day
(b) type of breeze
(c) reason for the breeze to occur

End of Questions in Paper

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