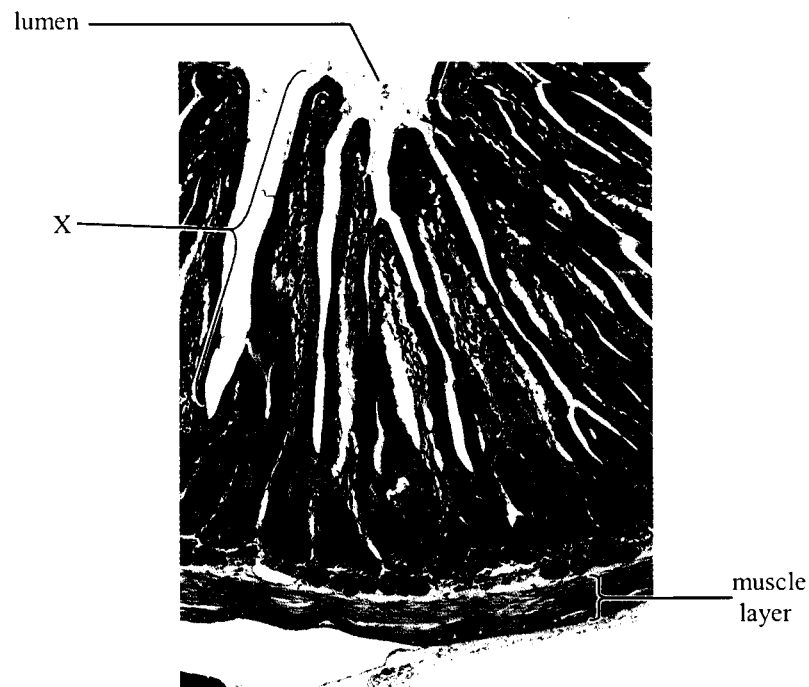
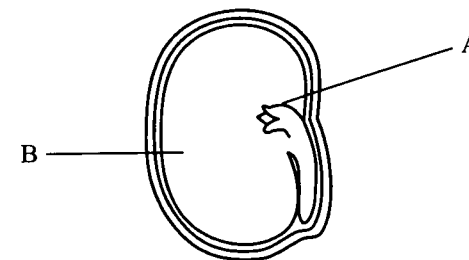


1. (a) The photomicrograph below shows a cross section of the small intestine of a mammal :



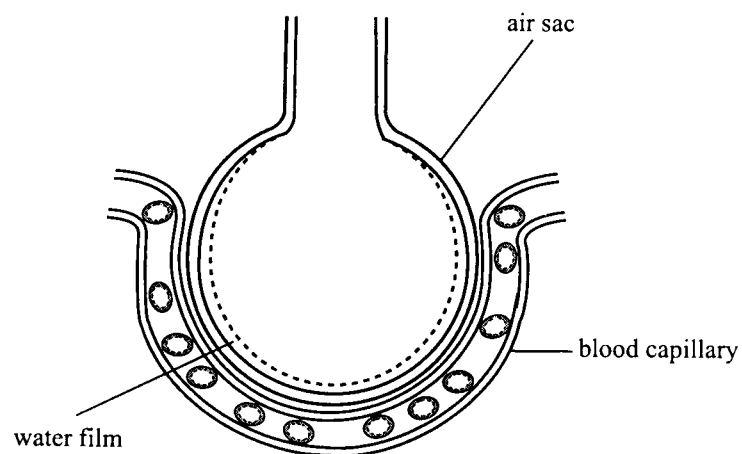
- (i) With reference to *two* features of X observable from the photomicrograph, explain how these features facilitate the absorption of digested food substances. (4 marks)
- (ii) Use a flowchart to show how amino acids are transported to the heart after entering X. Indicate the major organs and blood vessels along the pathway. (2 marks)
- (iii) Describe how the muscle layer helps the movement and digestion of food inside the small intestine. (3 marks)

1. (b) The diagram below shows a section of a seed :



- (i) (1) Name structure A. (1 mark)
- (2) What organs will A develop into during seed germination? (2 marks)
- (ii) During germination, amylase activity is detected in region B. Explain the importance of amylase activity to the growth of the seedling. (4 marks)
- (iii) The dry mass of the seedling decreases in the initial stage of germination but starts to increase after one week. Explain the increase in dry mass of the seedling in the later stage. (3 marks)

1. (c) The diagram below shows an air sac of the lung and its blood supply :



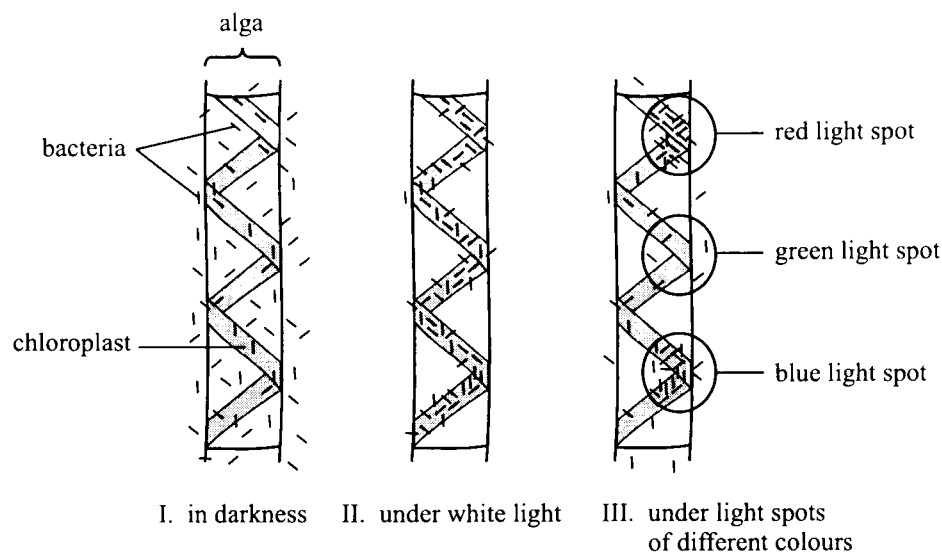
- (i) Explain the importance of the water film in gaseous exchange. (2 marks)
- (ii) SARS patients may have fluid accumulated in the air sacs. Explain how the accumulation of fluid may affect the oxygen content of the blood of the patients. (3 marks)
- (iii) One method to confirm whether a patient is infected with the SARS virus is to test for the presence of antibodies against this virus in the patient's blood.
Explain why these antibodies will be produced by a SARS patient. (2 marks)
- (iv) Suggest a method that can help the body develop immunity against SARS. Explain how the immunity is developed. (4 marks)

2. (a) The table below shows the average number of pregnancies for women adopting different contraceptive methods :

Contraceptive method	Pregnancies per 100 women in 12 months
Condom	15
Diaphragm	13
Intra-uterine device (IUD)	2
Rhythm method	25

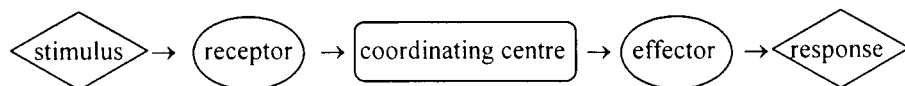
- (i) The use of condoms and diaphragms are based on the same principle in bringing about contraception. What is this principle ? (1 mark)
- (ii) How can an IUD prevent pregnancy to occur ? (1 mark)
- (iii) (1) Explain the biological basis of the rhythm method. (3 marks)
(2) Why does this contraceptive method have a high rate of failure ? (1 mark)
- (iv) Even though some couples do not use any contraceptive methods and have regular intercourse, the wives fail to become pregnant. Suggest **two** reasons for this. (2 marks)
- (v) A man received an operation for contraception and had his sperm ducts tied and cut. Explain why his secondary sexual characteristics will not be affected after this operation. (3 marks)

2. (b) In 1883, a German scientist, Engelmann, used a green alga to study the effect of light on photosynthesis. This alga has long ribbon-like chloroplasts. He placed the alga on a slide with a suspension of bacteria which would migrate to regions with high oxygen concentration. He observed the distribution of the bacteria under different light conditions. The results are shown in the diagram below :



- (i) Describe the distribution of bacteria in I and II. (2 marks)
- (ii) How would you account for the bacteria distribution in II ? (2 marks)
- (iii) What did Engelmann wish to find out by setting up the experiment in III ? (1 mark)
- (iv) What conclusions can you draw from the results in III ? (2 marks)
- (v) (1) Draw a labelled diagram to show an experimental set-up used to test whether the conclusions in (iv) is correct or not. You are provided with a waterweed, a table lamp, colour filters and materials that you can get in the laboratory. (3 marks)
- (2) What data would you collect with this set-up ? (1 mark)

2. (c) Irritability is the ability of an organism to respond to an external stimulus. Most cases of irritability work in the following pattern :



Below are three examples of irritability in humans :

- (I) Secretion of saliva when food is ingested
- (II) Constriction of pupil under bright light
- (III) Running out of the classroom upon hearing the fire alarm

- (i) For case I, state the receptor and effector involved. (2 marks)
- (ii) Based on the above pattern, use a flowchart to show the nervous pathway for case II, including the types of neurones involved. (3 marks)
- (iii) (1) Name the region of the brain where the coordinating centre for case III is located. (1 mark)
- (2) State *two* features of the responses controlled by this region. (2 marks)

3. (a) The following pictures show two plants of the same species. Plant A has green leaves. Plant B is a new form recently discovered by a scientist; it has variegated leaves.



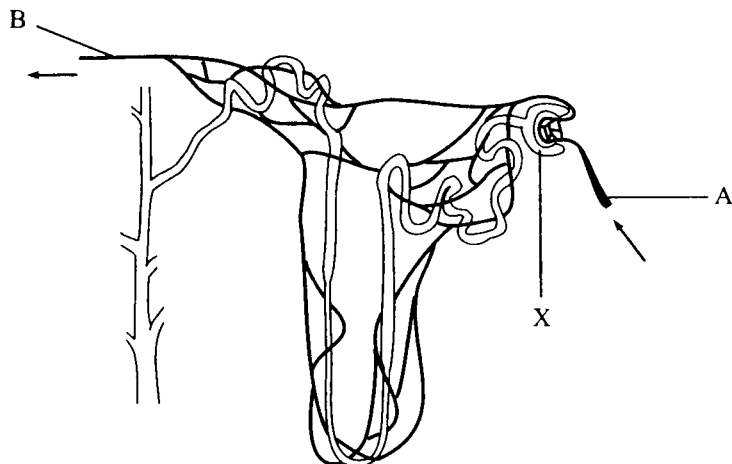
Plant A

Plant B

The scientist performed an experiment by self-crossing plant A. A large number of offspring were obtained and they all produced green leaves. He then repeated the same procedure with plant B and all the offspring produced variegated leaves.

- (i) Assuming that the colour pattern of the leaves is controlled by a pair of alleles, what deductions can be made from the above results regarding the genotypes of plants A and B ? Explain how you arrive at your deductions. (3 marks)
(Marks will *not* be awarded for genetic diagrams.)
- (ii) In order to find out which colour pattern is dominant, the scientist performed another experiment by crossing plant A with plant B. Explain how the results of this cross would enable him to determine the dominant phenotype. (3 marks)
- (iii) The white patches on the leaves of plant B might be caused by mineral deficiency instead of genetic changes. If this is the case, what mineral is likely to be deficient ? What is the function of this mineral in plants ? (2 marks)

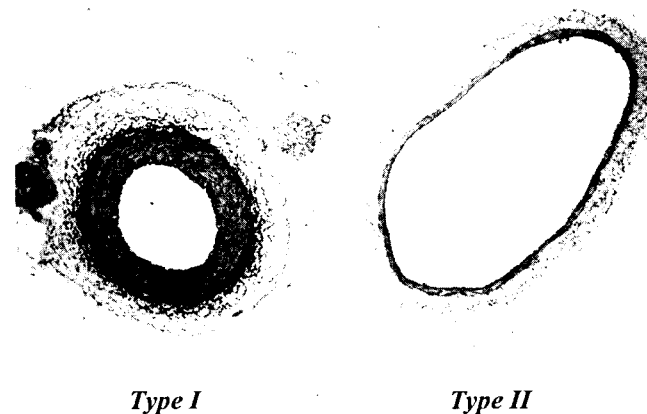
3. (b) The diagram below shows the structure of a nephron and its associated blood vessels :



Key : ← direction of blood flow

- Name the fluid found in X. Explain how this fluid is formed. (4 marks)
- Describe *two* ways in which glucose in vessel A may reach vessel B. Your answer should include the routes and the mechanisms involved. (4 marks)
- Coffee contains a chemical called caffeine which causes dilation of vessel A. Explain how the presence of caffeine in the blood may increase the rate of urine production. (3 marks)

3. (c) The photomicrograph below shows the sections of two types of blood vessels in the human body :



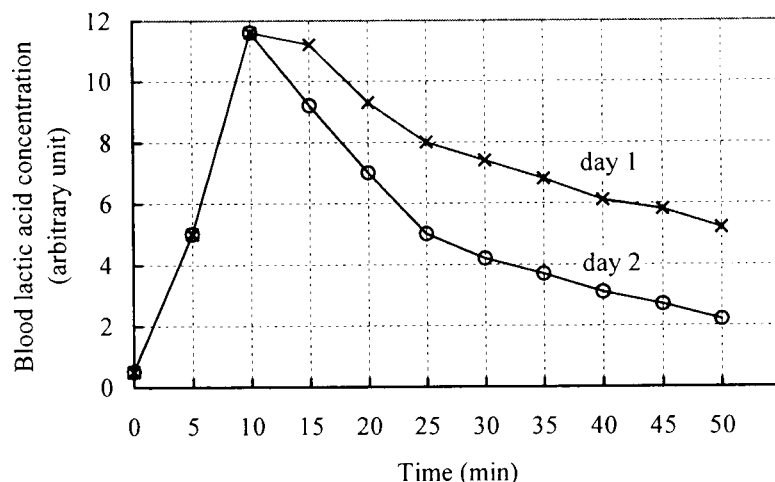
- State *two* functions of the thick muscular wall of vessel type I. (2 marks)
- Vessel type II has a larger lumen than vessel type I. Explain the importance of this. (2 marks)

The table below shows the gas content of the blood in the two types of vessels transporting blood between the heart and an organ A :

	Gas content (arbitrary unit)	
	Vessel type I	Vessel type II
Carbon dioxide	44	40
Oxygen	40	100

- Identify organ A. (1 mark)
- With reference to organ A,
 - account for the difference in carbon dioxide content between the blood in vessel types I and II. (3 marks)
 - explain the low oxygen content of the blood in vessel type I. (3 marks)

4. (a) An experiment was carried out to study the changes in blood lactic acid concentration of an athlete during and after exercise. On day 1, the athlete ran for 10 minutes and then sat down to rest for 40 minutes. On day 2, she performed the same exercise, followed by slow jogging for 40 minutes. The results of the experiment are shown in the graph below :



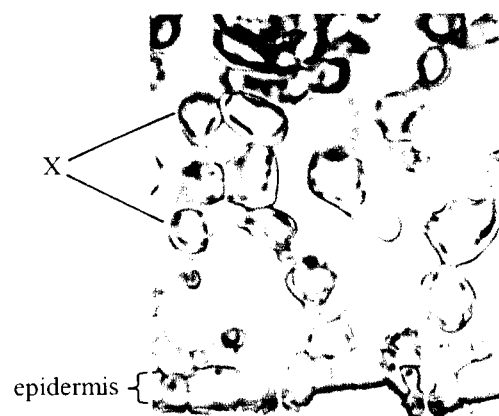
- Account for the increase in blood lactic acid concentration in the first 10 minutes. (3 marks)
- The rate of carbon dioxide production also increased in the first 10 minutes. Write a word equation to show how carbon dioxide is produced. (2 marks)
- Why is it harmful to the body cells if the blood contains a high level of lactic acid ? (1 mark)
- Referring to the graph, which method, sitting down or slow jogging, is more effective in removing lactic acid from the blood after exercise ? Based on your biological knowledge, explain why this method is more effective. (4 marks)

4. (b) Some industries produce mercury-containing wastes which may be discharged into the sea. The table below shows the mercury levels in the seawater and the marine organisms around the area of discharge :

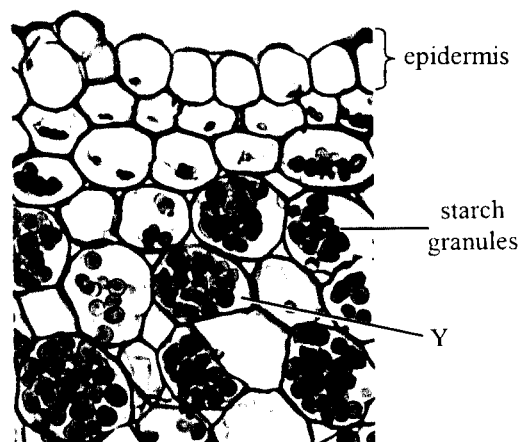
	Mercury level (ppb)
Normal seawater	0.1
Seawater containing industrial wastes	2
Squid	400
Shrimp	50
Tuna fish	12 000
Microscopic algae	8

- With reference to the mercury level in various marine organisms, construct a probable food chain using these organisms. (1 mark)
- Explain why tuna fish contains a much higher mercury level than shrimp. (3 marks)
- After consuming seafood harvested in this area for years, people may develop the symptom of shaky hands. This is a sign of mercury poisoning. Suggest which body system is likely to have been affected. (1 mark)
- Describe how the nitrogen in the shrimp can be made available to the microscopic algae after the death of the shrimp. (4 marks)

4. (c) The photomicrographs below show the sections of a leaf and a root :



Leaf



Root

- (i) What is the significance of the following features ?
- (1) the presence of cuticle on the leaf epidermis (1 mark)
 - (2) the absence of cuticle on the root epidermis (1 mark)
- (ii) With reference to **one** feature shown in the photomicrograph, explain how gaseous exchange can occur at the leaf epidermis. (2 marks)
- (iii) Describe how the activity of cell type X leads to the storage of starch granules in cell type Y. (4 marks)
- (iv) The table below shows the concentration of certain minerals in the soil water and the cell sap of the root epidermal cells :

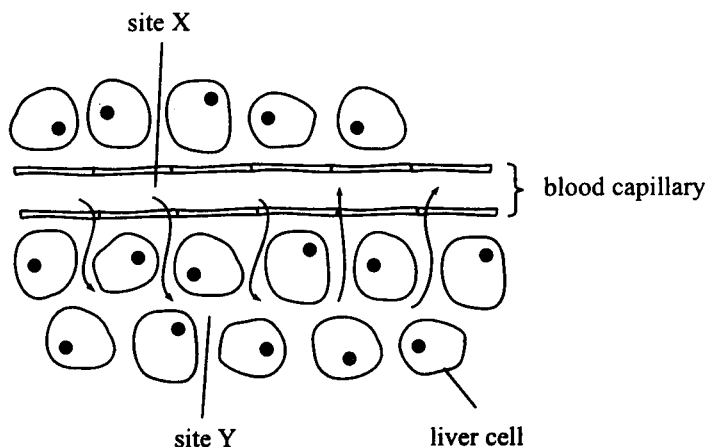
	Concentration (mmol dm^{-3})		
	Potassium	Sodium	Chloride
Soil water	0.1	1.1	1.3
Cell sap of root epidermal cells	93.0	51.0	58.0

According to these data, what mechanism is probably used by the root to absorb minerals from the soil water ? Explain your answer based on the information provided. (3 marks)

END OF PAPER

There are 60 questions in this paper.
The diagrams in this paper are NOT necessarily drawn to scale.

Directions: Questions 1 and 2 refer to the diagram below, which shows the movement of fluid in and out of a capillary in the liver tissue:



Key: → direction of fluid flow

1. Which of the following is a correct comparison of the fluid in X and that in Y when a person has not eaten for 12 hours?

	<i>Fluid in X</i>	<i>Fluid in Y</i>
A.	urea absent	urea present
B.	white blood cells present	white blood cells absent
C.	higher glucose content	lower glucose content
D.	lower carbon dioxide content	higher carbon dioxide content

2. The movement of fluid back into the capillary is mainly caused by

- A. active transport.
- B. osmosis.
- C. secretion.
- D. ultra-filtration.

3. A student defines osmosis as 'the movement of water molecules from a dilute solution to a concentrated solution across a selectively permeable membrane'. This definition is inaccurate because

- A. solute molecules can also move along the concentration gradient.
- B. water molecules can also move from the concentrated solution to the dilute solution.
- C. it should state clearly that the membrane is not permeable to the solute molecules.
- D. movement of water molecules can still occur without a selectively permeable membrane.

4. A student examined the distribution of stomata in the leaves of three different plants: a land plant with broad leaves, a water plant with floating leaves and a water plant with submerged leaves. The results are shown below:

Plant	Stomatal density (number per mm ²)	
	Upper epidermis	Lower epidermis
P	30	0
Q	0	0
R	12	35

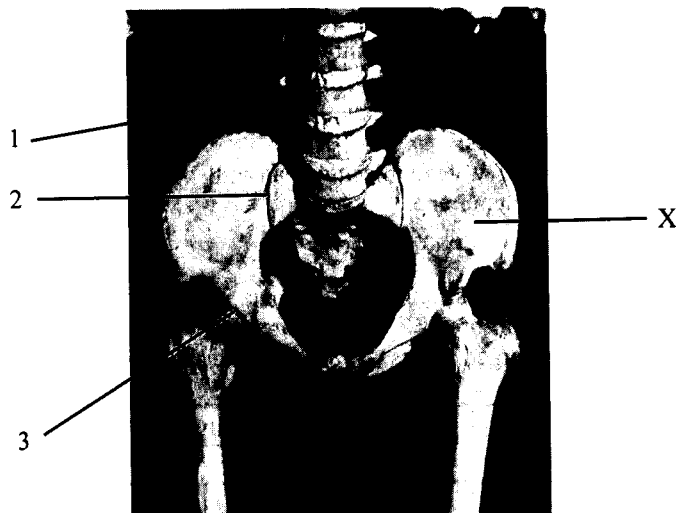
Which of the following correctly identifies the three plants?

	<i>Land plant</i>	<i>Water plant with floating leaves</i>	<i>Water plant with submerged leaves</i>
A.	P	R	Q
B.	Q	P	R
C.	R	Q	P
D.	R	P	Q

5. The fluid inside the lacteals of the intestinal villi becomes milky after a meal. This is due to the presence of

- A. fatty acids.
- B. amino acids.
- C. fats.
- D. proteins.

Directions: Questions 6 and 7 refer to the photograph below, which shows part of the human skeleton:



Source: Mackean, D.G., *Introduction to Biology 4th ed.*, London: John Murray (Publishers) Ltd., 1969.

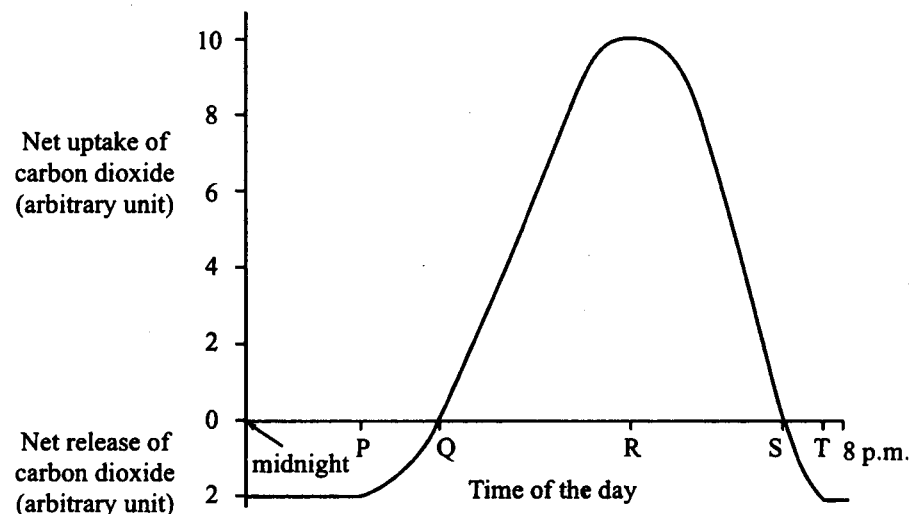
6. Which joints allow movement between the bones ?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

7. Which of the following is a function of structure X ?

- A. storing iron
- B. protecting the spinal cord
- C. destroying red blood cells
- D. producing white blood cells

Directions: Questions 8 and 9 refer to the graph below, which shows the gaseous exchange of a green leaf from midnight to 8 p.m.:



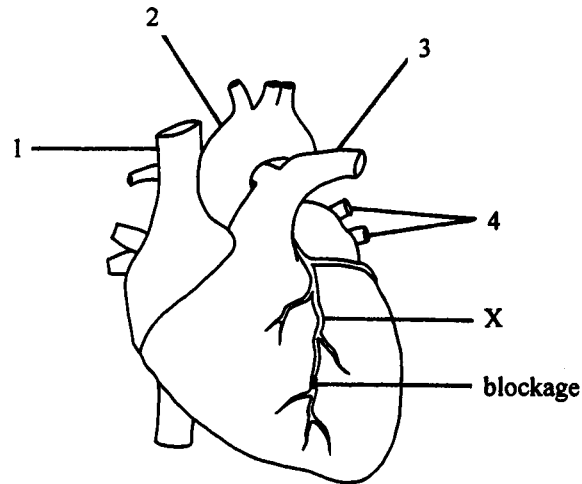
8. The leaf carried out photosynthesis during the period

- A. P to S only.
- B. P to T only.
- C. Q to R only.
- D. Q to S only.

9. What is the highest rate of photosynthesis of the leaf ?

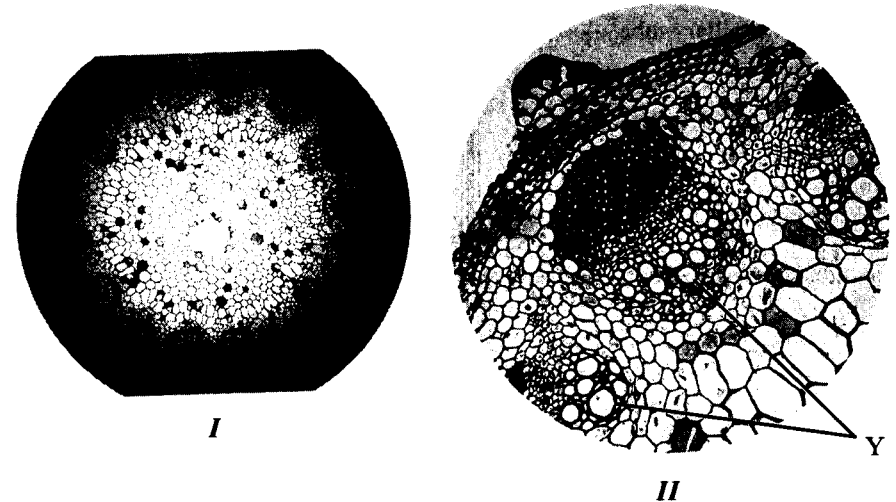
- A. 6 arbitrary units
- B. 8 arbitrary units
- C. 10 arbitrary units
- D. 12 arbitrary units

Directions: Questions 10 and 11 refer to the diagram below, which shows the ventral view of the human heart:



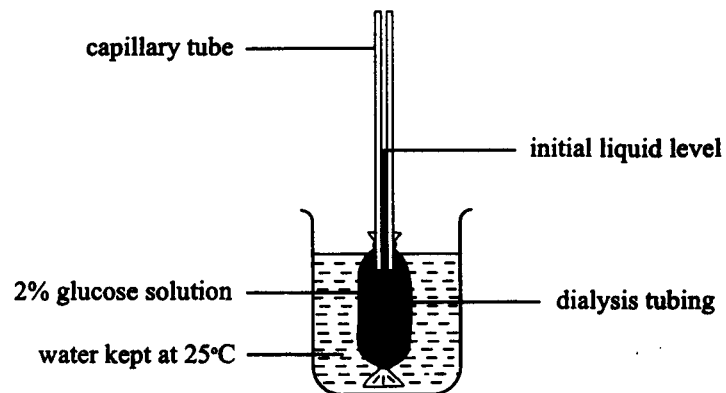
10. Vessel X is responsible for supplying blood to the heart muscle. It receives blood directly from
- vessel 1.
 - vessel 2.
 - vessel 3.
 - vessel 4.
11. Which of the following will occur if vessel X is blocked as shown in the diagram?
- Some heart muscles will die.
 - The heart will pump out more blood in each beat.
 - The blood pressure in the arteries will become higher.
 - The carbon dioxide content of the blood in the veins will become lower.
12. The diet of many children contains only a small amount of fruit and vegetables. This may lead to
- anaemia.
 - constipation.
 - night-blindness.
 - rickets.

Directions: Questions 13 and 14 refer to the photomicrographs below, which show the cross section of a stem under different magnifications:

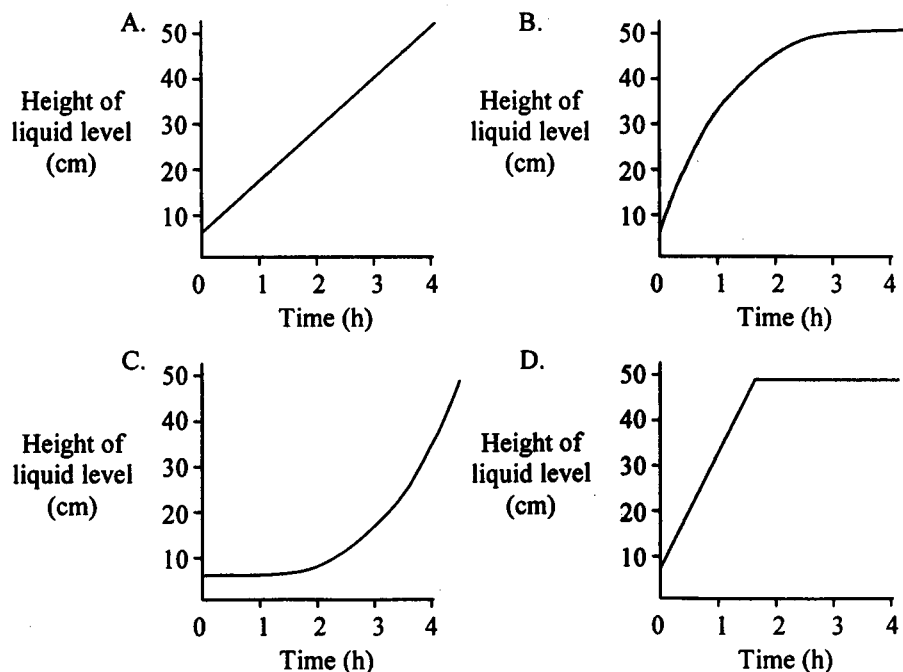


13. A student first focused on the section under the microscope and saw the section as shown in I. In order to see the section as shown in II, the following steps are required. Arrange them in the correct sequence.
- Turn the nosepiece for an objective of higher magnification.
 - Turn the coarse adjustment knob / fine adjustment knob.
 - Adjust the position of the section on the stage.
- (2), (1), (3)
 - (2), (3), (1)
 - (3), (1), (2)
 - (3), (2), (1)
14. What is the function of cell type Y?
- to conduct sugar away from the leaves
 - to maintain turgidity of the stem
 - to transport mineral salts
 - to store starch

Directions: Questions 15 and 16 refer to the diagram below, which shows a set-up used by Eric to study osmosis:



15. If Eric carries out the investigation for four hours, what would be the change in the liquid level in the capillary tube with time?



16. Which of the following can increase the rate of rise of the liquid level in the capillary tube?

- (1) Raise the water temperature to 30°C.
- (2) Use a larger beaker with more water inside.
- (3) Use a capillary tube with a smaller internal diameter.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

17. On a hot summer afternoon, the shoot of a herbaceous plant may become wilted for several hours and most stomata of its leaves are closed. What is the advantage of the stomatal closure to the wilted plant?

- A. to reduce the transpiration rate
- B. to reduce the rate of gaseous exchange
- C. to cut down water absorption from the root
- D. to avoid further increase in leaf temperature

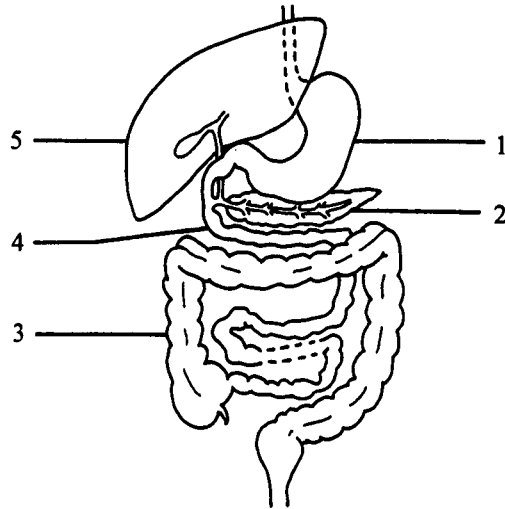
18. Referring to question 17, the wilted plant usually restores its upright appearance in the late afternoon. This is because

- A. the stomata become opened.
- B. the photosynthetic rate drops.
- C. the transpiration rate decreases.
- D. the respiratory rate increases.

19. Which of the following processes does *not* require metabolic energy?

- A. movement of the ovum in the oviduct
- B. movement of undigested food along the colon
- C. movement of oxygen from the air sacs of the lung into the blood
- D. movement of amino acids from the glomerular filtrate to blood capillaries

Directions: Questions 20 to 22 refer to the diagram below, which shows part of the human digestive system:



20. Which structures produce enzymes for digesting proteins in the alimentary canal ?

- A. 1, 2 and 4
- B. 1, 2 and 5
- C. 1, 3 and 5
- D. 2, 4 and 5

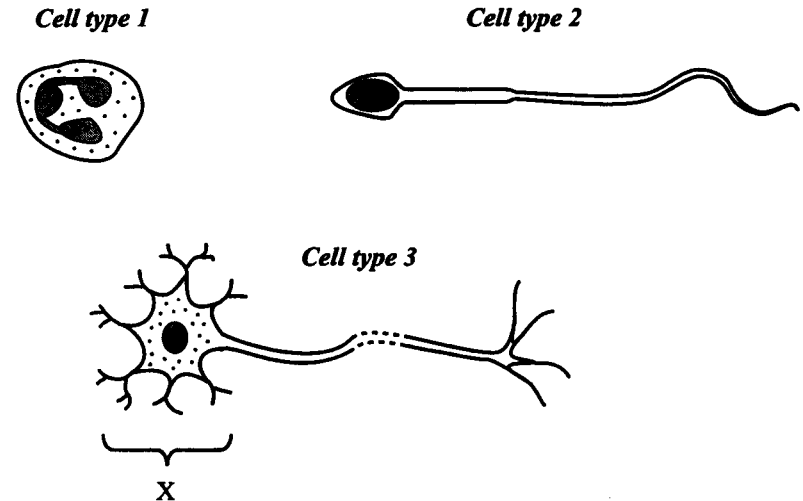
21. Which structures are responsible for the regulation of blood glucose level ?

- A. 2 and 4 only
- B. 2 and 5 only
- C. 4 and 5 only
- D. 2, 4 and 5

22. In a healthy person, structure 3 normally contains a large number of bacteria. What is the ecological relationship between the human and the bacteria ?

- A. predation
- B. parasitism
- C. mutualism
- D. competition

Directions: Questions 23 and 24 refer to the diagram below, which shows three different cell types found in the adult human body:



23. All three cell types

- A. possess a nucleus.
- B. can move from place to place.
- C. are able to undergo cell division.
- D. contain a diploid set of chromosomes.

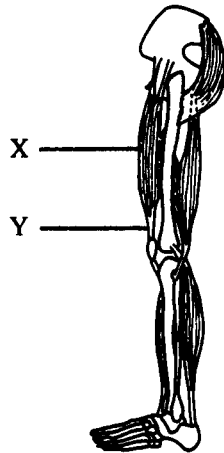
24. Structure X of cell type 3 is present abundantly in

- A. the spinal nerves.
- B. the skeletal muscles.
- C. the grey matter of the spinal cord.
- D. the white matter of the cerebrum.

25. Which of the following farming practices would lead to a rapid growth of algae in nearby ponds ?

- A. spraying the crops with insecticides frequently
- B. growing a large number of crops within a small area
- C. adding a large amount of organic matters to the farmland
- D. applying a large amount of inorganic fertilizers to the farmland

Directions: Questions 26 and 27 refer to the diagram below, which shows the muscles associated with the leg of a person:

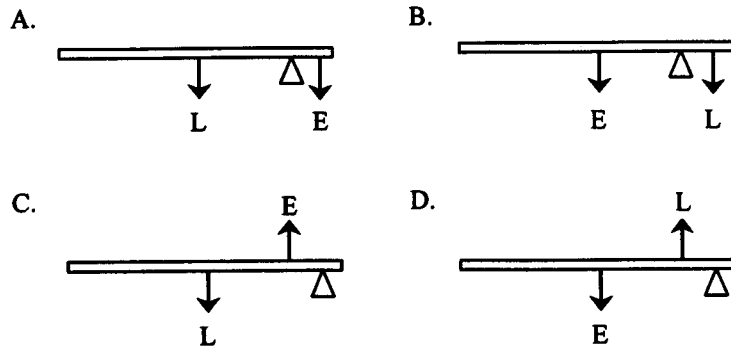


26. When X contracts, Y will

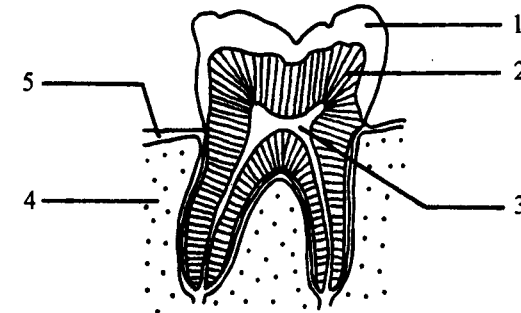
- (1) become shorter.
- (2) become thicker.
- (3) increase in tension.

- A. (1) only
- B. (3) only
- C. (1) and (2) only
- D. (2) and (3) only

27. Which of the following correctly represents the lever system involved in the straightening of the leg at the knee joint? (Key: E = effort; L = load)



Directions: Questions 28 and 29 refer to the diagram below, which shows the vertical section of a human tooth:



28. Which structures are hard and rigid?

- A. 1, 2 and 3
- B. 1, 2 and 4
- C. 1, 3 and 5
- D. 2, 4 and 5

29. Which structures receive a continuous supply of nutrients?

- A. 1, 2 and 3 only
- B. 3, 4 and 5 only
- C. 1, 2, 4 and 5 only
- D. 2, 3, 4 and 5 only

30. Which of the following is a correct statement about meiosis occurring in the human testis?

- A. DNA replicates before the start of meiosis I.
- B. The pair of chromatids separates in meiosis I.
- C. Homologous chromosomes pair up in meiosis II.
- D. All daughter cells contain the Y chromosome.

31. Man and woman differ in their dietary requirement of iron. This is because

- A. man needs more red blood cells.
- B. man can store more iron in his liver.
- C. woman loses blood in the menstrual flow.
- D. the red blood cells of woman have a shorter life span.

32. A woman's dietary requirement of calcium increases

- A. during menstruation.
- B. in the first week of pregnancy.
- C. at the onset of labour.
- D. during the breast-feeding period.

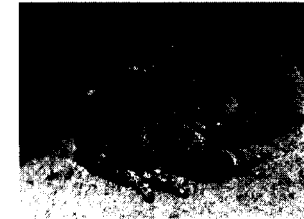
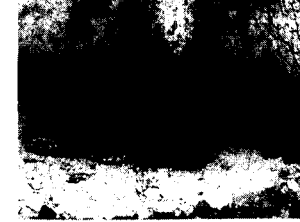
33. Compared to the resting condition, when a person does vigorous exercise, there will be a great decrease in the amount of water lost through

- A. exhalation.
- B. sweating.
- C. egestion.
- D. urination.

34. Planting trees can help to prevent global warming because

- A. evaporation of water from trees cools the air.
- B. trees reduce the amount of sunlight reaching the ground.
- C. the carbon dioxide level in air is reduced during photosynthesis.
- D. oxygen produced during photosynthesis forms an ozone layer in the atmosphere.

35. What is the common feature possessed by the three animals shown in the photographs ?



Source: Physical Sciences Section, E.D., Kadoorie Farm & Botanic Garden, and Ocean Park, 綜合科學教材套——親親大自然, HK: Education Department, 1998.

- A. laying eggs
- B. breathing with lungs
- C. presence of scales on the skin
- D. living both in water and on land

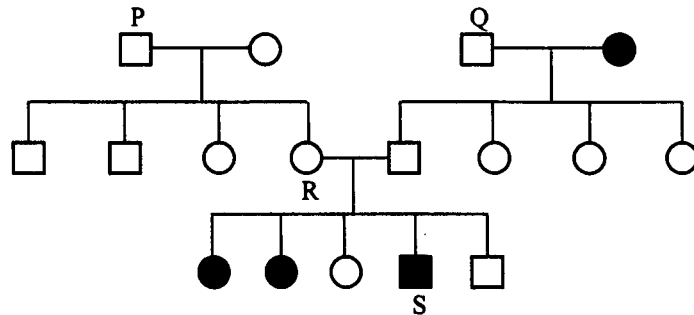
36. When a person is watching a bus moving away from him, the suspensory ligaments of his eyes will

- A. contract.
- B. relax.
- C. increase in tension.
- D. decrease in tension.

37. Aerobic bacteria are important in the process of sewage treatment because they help to

- A. break down the organic substances in the sewage.
- B. release energy from the sewage in a usable form.
- C. remove the excess mineral salts in the sewage.
- D. break down the detergent in the sewage.

Directions: Questions 38 and 39 refer to the pedigree below, which shows the inheritance of albinism in a family. Albinism is a condition characterized by the lack of a dark brown pigment in the body. The ability to produce this pigment is controlled by a pair of alleles.



Key: normal male normal female
 albino male albino female

38. The information in the pedigree allows us to deduce the genotype of

- A. P and Q.
- B. P and R.
- C. Q and S.
- D. R and S.

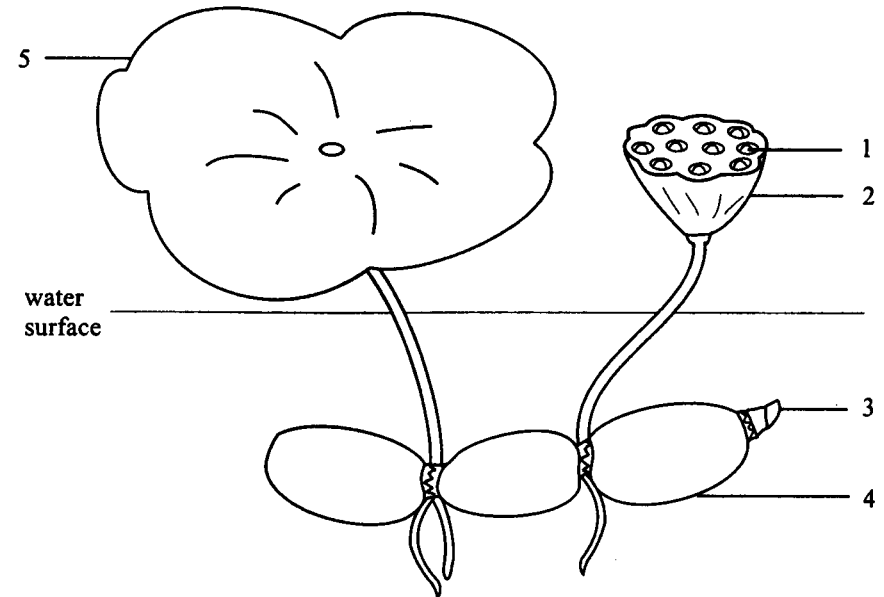
39. What is the chance of R giving birth to another albino child ?

- A. $\frac{1}{4}$
- B. $\frac{1}{2}$
- C. $\frac{3}{5}$
- D. $\frac{3}{4}$

40. Which of the following food preservation methods has the least effect on the flavour of the food ?

- A. heating
- B. salting
- C. dehydration
- D. refrigeration

Directions: Questions 41 and 42 refer to the following diagram of a lotus plant:



41. Among the following structures, which has a different genotype ?

- A. 1
- B. 2
- C. 3
- D. 4

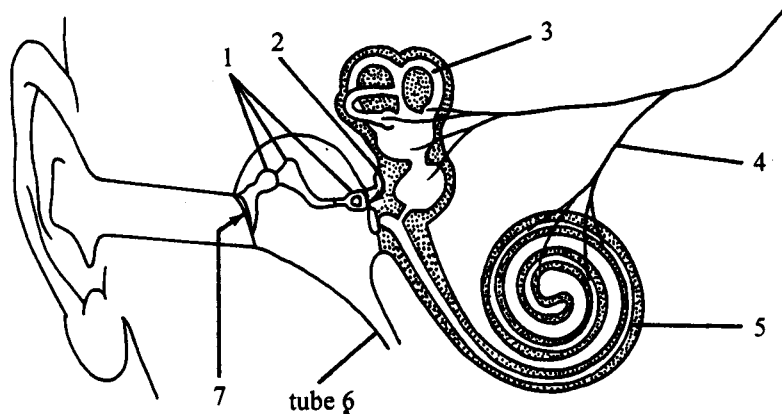
42. Which part of this plant produces food for the development of 3 ?

- A. 1
- B. 2
- C. 4
- D. 5

43. Compared with growing different kinds of crops in a field, monoculture would lead to

- A. better adaptability of the crop.
- B. an increase in the pest population.
- C. decreased pollution of the environment.
- D. full utilization of different minerals in the soil.

Directions: Questions 44 and 45 refer to the diagram below, which shows the structure of the ear:



44. Which of the following is *not* involved in hearing ?

- A. 3
- B. 4
- C. 5
- D. 7

45. If tube 6 is blocked, a person will not be able to hear clearly. This is because

- A. 1 exerts a higher pressure on 2.
- B. 7 cannot vibrate freely.
- C. there is less air in the middle ear.
- D. the endolymph exerts a higher pressure on the sensory hair cells.

46. Which of the following correctly compares the transport of substances in the xylem and phloem ?

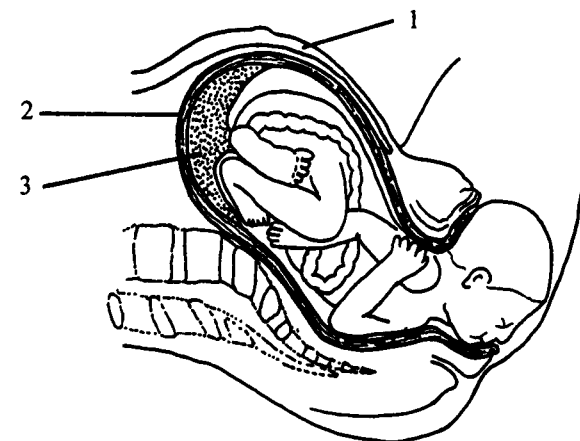
Transport in xylem

- A. occurs in dead cells
- B. transports sugars
- C. occurs both day and night
- D. transports substances in two directions

Transport in phloem

- occurs in living cells
- transports amino acids
- occurs only at night
- transports substances in one direction only

Directions: Questions 47 and 48 refer to the diagram below, which shows a fetus in the mother's body:



47. Which of the following help(s) to expel the foetus from the mother's body during birth ?

- A. 1 only
- B. 2 only
- C. 1 and 2 only
- D. 1, 2 and 3

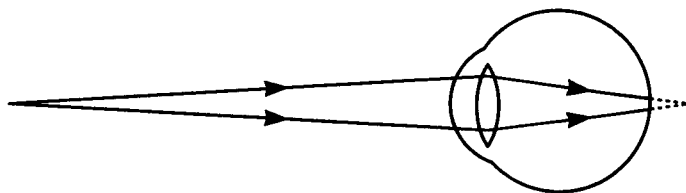
48. Which of the following *cannot* pass through 3 from the mother's blood to the foetus ?

- A. alcohol
- B. antibodies
- C. haemoglobin
- D. urea

49. Soil fertility may be reduced by the activity of

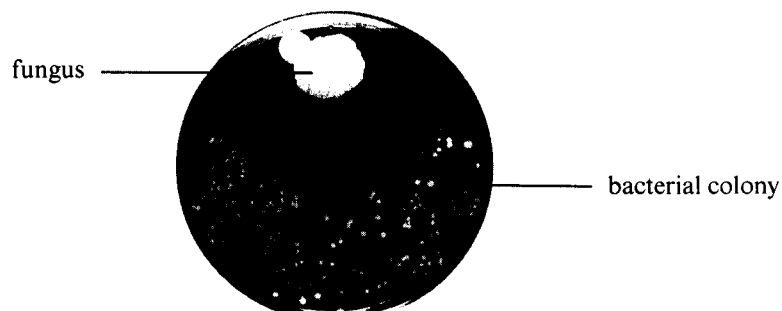
- A. nitrogen-fixing bacteria.
- B. denitrifying bacteria.
- C. putrefying bacteria.
- D. nitrifying bacteria.

50. What condition is shown by the ray diagram below ?



- A. a short-sighted person looking at a distant object
- B. a long-sighted person looking at a distant object
- C. a short-sighted person looking at a nearby object
- D. a long-sighted person looking at a nearby object

51. The photograph below shows a bacterial culture growing on nutrient agar. The culture is contaminated by a fungus.

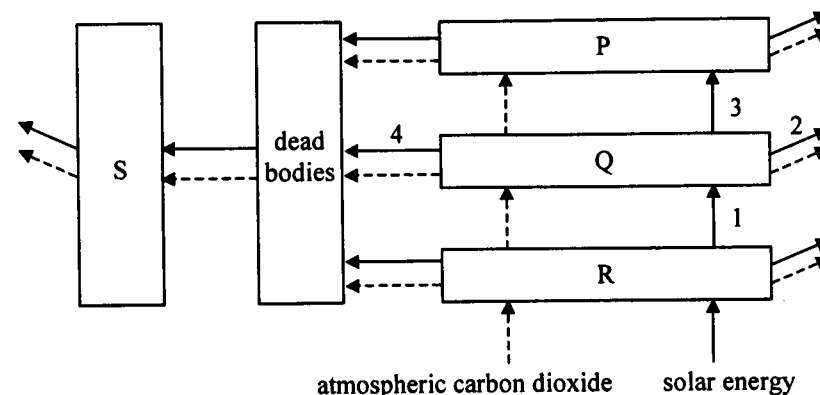


Source: Tortora, G.J., Funke, B.R., & Case, C.L., *Microbiology — An Introduction 4th ed.*, Redwood City: The Benjamin/Cummings Publishing Company, Inc., 1992.

Which of the following correctly explains the absence of bacterial colonies around the fungus ?

- A. The fungus digests the bacteria as food.
- B. The fungus competes with the bacteria for the nutrients.
- C. The fungus needs more space to grow than the bacteria.
- D. The fungus produces a substance that inhibits the growth of the bacteria.

Directions: Questions 52 to 54 refer to the diagram below, which shows the flow of energy and carbon in an ecosystem. P, Q and R represent different trophic levels and S represents another group of organisms in the ecosystem.



Key: ———> direction of energy flow
-----> direction of carbon flow

52. Organisms in S are

- A. predators.
- B. pathogens.
- C. parasites.
- D. saprophytes.

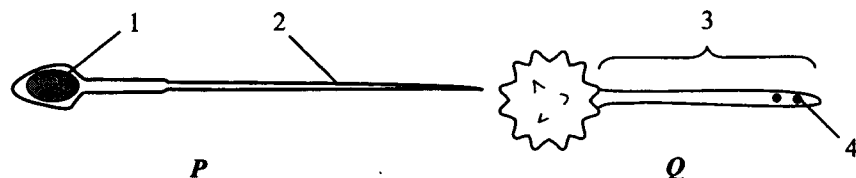
53. Energy is lost from the ecosystem through process 2. What is this process ?

- A. decomposition
- B. transpiration
- C. respiration
- D. excretion

54. With reference to trophic level Q, the largest amount of energy flow occurs in

- A. 1.
- B. 2.
- C. 3.
- D. 4.

55. P and Q in the diagram below are the reproductive structures of a mammal and a flowering plant respectively.



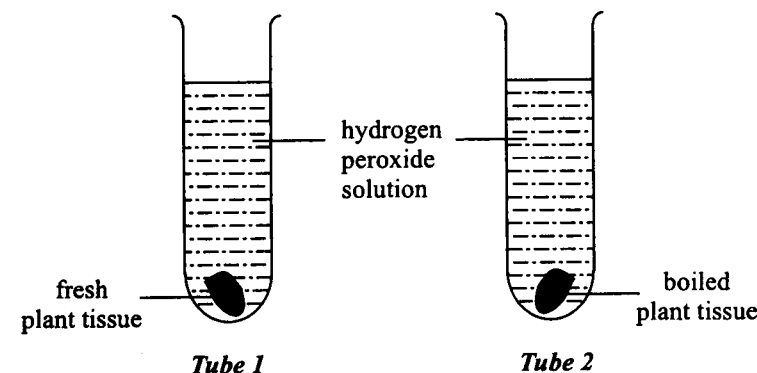
Which of the following comparisons between P and Q is correct ?

- A. Both P and Q are male gametes.
 B. Both structures 1 and 4 carry the Y chromosome.
 C. Both structures 1 and 4 contain the same number of chromosomes.
 D. Both structures 2 and 3 enable the male gamete to meet the female gamete.
56. Which of the following statements about antibodies is correct ?
- A. Injection of antibodies can provide immunity against certain infectious diseases.
 B. Antibodies against a particular antigen can act on a wide range of pathogens.
 C. Antibodies can develop a memory for pathogens.
 D. Antibodies can be reused.
57. Joe and Jim are twin brothers. Which of the following characteristics of Joe and Jim allows you to determine whether they are identical twins or not ?

	Joe	Jim
A. IQ	110	110
B. pulse rate	70	75
C. blood group	A	A
D. colour vision	normal	colour-blind

58. Which of the following plants does **not** bear flowers but reproduces by seeds ?
- A. fern
 B. grass
 C. a pine tree
 D. an onion plant

Directions: Questions 59 and 60 refer to an investigation on the enzyme catalase, which breaks down hydrogen peroxide and releases oxygen. In order to show whether a certain plant tissue contains catalase or not, Joyce set up the following experiment:



59. Joyce observed that a lot of gas bubbles were released in tube 1 but not in tube 2. In order to conclude that the plant tissue contains catalase, what **additional** steps should be taken by Joyce ?
- (1) Test whether the gas bubbles contain oxygen.
 (2) Set up a tube containing water and the fresh plant tissue.
 (3) Set up a tube containing hydrogen peroxide but no plant tissue.
- A. (1) and (2) only
 B. (1) and (3) only
 C. (2) and (3) only
 D. (1), (2) and (3)
60. When gas bubbles stopped coming out from tube 1, Joyce added more hydrogen peroxide into the tube. She observed that gas bubbles were produced again. What can be implied from this observation about the property of enzymes ?
- A. Enzymes can be reused.
 B. Enzymes are specific in action.
 C. Enzymes are made up of proteins.
 D. Enzymes can speed up chemical reactions.

END OF PAPER