

K.C.P.E. FOURTH TRIAL

STANDARD EIGHT

SCIENCE

Time: 1hr 40mins

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the ANSWER SHEET, not in the question booklet.

HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil.
5. Make sure that you have written on the answer sheet:

YOUR INDEX NUMBER

YOUR NAME

NAME OF YOUR SCHOOL

6. By drawing a dark line inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number) in the grid near the top of the answer sheet.
7. Do not make " " outside the boxes.
8. Keep your answer sheet as possible and do not fold it.
9. For each of the Questions 1 – 50, four answers are given. The answers are lettered A, B, C and D. In each case only ONE of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by drawing a dark line inside the box in which the letter you have chosen is written.

Example

In the Question Booklet:

14. Which of the following is NOT an oil crop?

- A. Sesame
- B. Groundnuts
- C. Turnips
- D. Simsim

The correct answer is C (Turnips)

On the answer sheet:



In the second set, the box with the letter C printed in it is marked.

11. Your dark line MUST be within the box.
12. For each question ONLY ONE box is to be marked in each set of four boxes.

This question paper consists of 7 printed pages

Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing

1. When the arrow head of a windvane points to the south, it shows that the wind is blowing from
- North
 - South
 - East
 - West

2. The following are symptoms of waterborne diseases.

- Pain in the joints*
- Itching in the lower abdomen*
- Blood stained stool*
- Severe diarrhoea and vomiting*

Which pair of the above listed symptoms are for bilharzia?

- (i) and (iv)
- (ii) and (iv)
- (i) and (iii)
- (ii) and (iii)

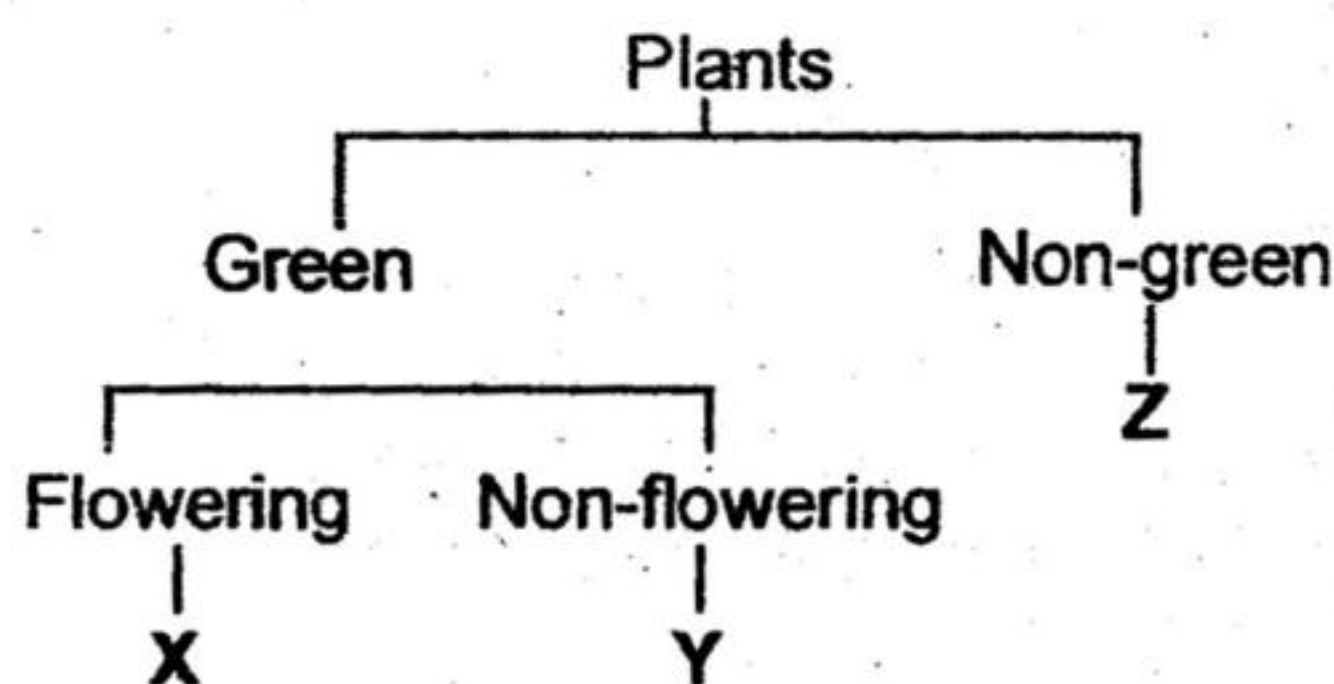
3. Heat from the sun reaches plants through

- conduction
- convection
- radiation
- convection and conduction

4. The type of beak suitable for sucking nectar should be

- long and slender
- short and slightly curved
- short, straight and thick
- flat with serrated edges

5. The illustration below shows classification of plants.



Which one of the following correctly shows examples of each of the groups as shown in the illustration?

X	Y	Z
A. Maize	Fern	Cactus
B. Beans	Algae	Toadstool
C. Cactus	Acacia	Mushroom
D. Banana	Cactus	Puffballs

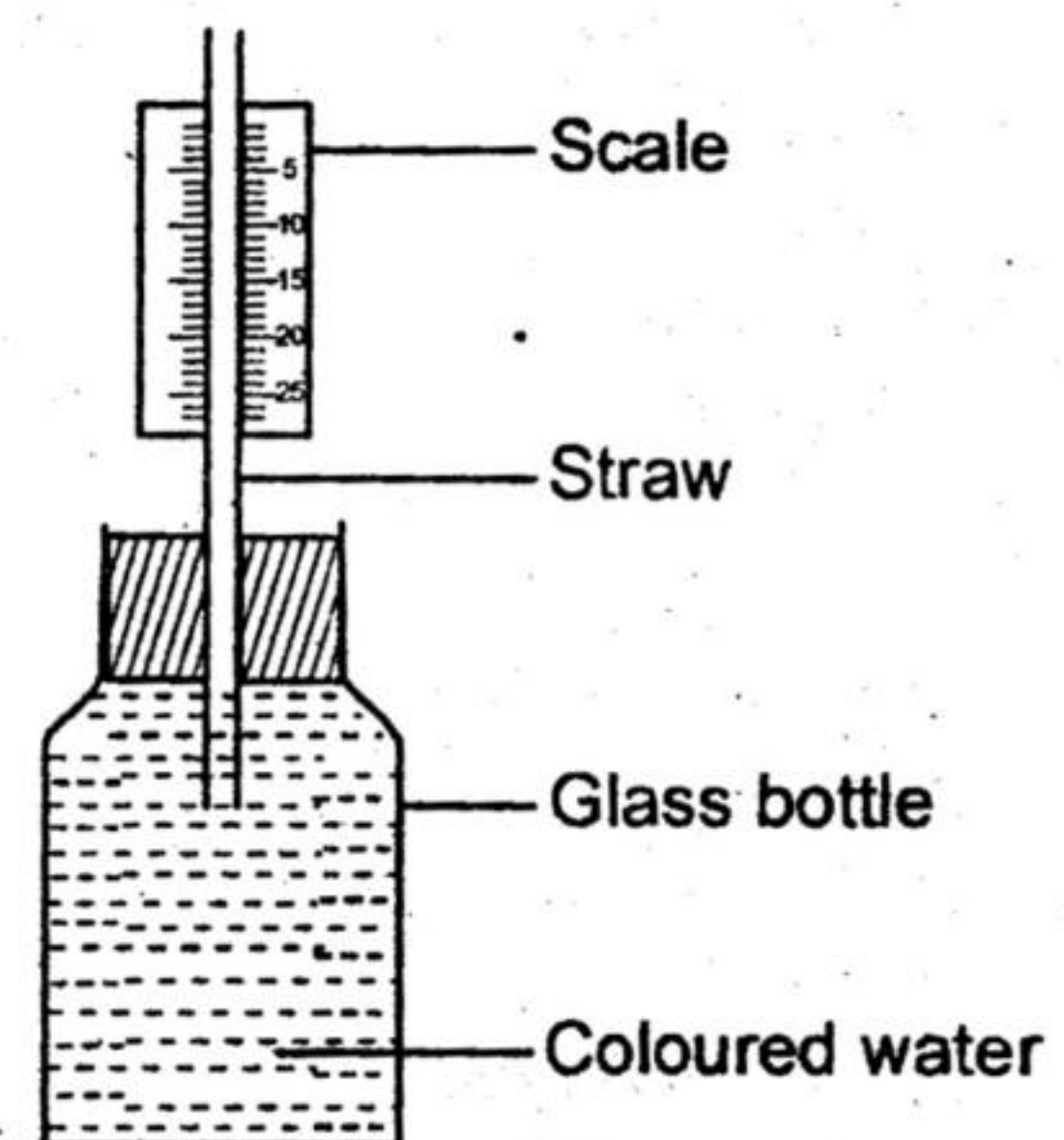
6. When preparing compost manure, wood ash is added to the contents in order to

- ensure even decomposition
- introduce bacteria
- speed up decomposition process
- supply additional nutrients

7. Which one of the following methods of controlling parasites can be effectively used to do away with ticks and liver flukes?

- Spraying
- Deworming
- Rotational grazing
- Dusting

8. The diagram below shows an improvised liquid thermometer. It is used to measure room temperature. In order to make the instrument more effective one should:



- use a better scale
- use a wider straw
- use a plastic bottle
- use clear water

9. Which one of the following shows the **CORRECT** order of foetal development in a human body?

- A. Zygote → Embryo → Foetus
- B. Embryo → Foetus → Zygote
- C. Foetus → Zygote → Embryo
- D. Zygote → Foetus → Embryo

10. The following are functions of the placenta **EXCEPT** one. Which one?

- A. Provides food for the growing embryo
- B. Exchange of oxygen and carbon dioxide
- C. Facilitates transfer of food
- D. Facilitates transfer of waste products

11. Which one of the following processes takes place immediately after the egg has been released from the ovary?

- A. Implantation
- B. Reproduction
- C. Fertilisation
- D. Ovulation

12. Study the food chain below. (the arrow points to the eater)

Maize → *Chicken* → *Mongoose* → *Jackal*

Which one of the above feeding organisms will belong to the same group as the mouse?

- A. Maize
- B. Chicken
- C. Mongoose
- D. Jackal

13. Below is a list of sexually transmitted infections

- (i) *Chancroid*
- (ii) *Syphilis*
- (iii) *Gonorrhoea*
- (iv) *Genital Herpes*
- (v) *HIV and AIDS*

Which one among the list are caused by a virus?

- A. (i) and (iii)
- B. (iii) and (v)
- C. (iv) and (v)
- D. (ii) and (iv)

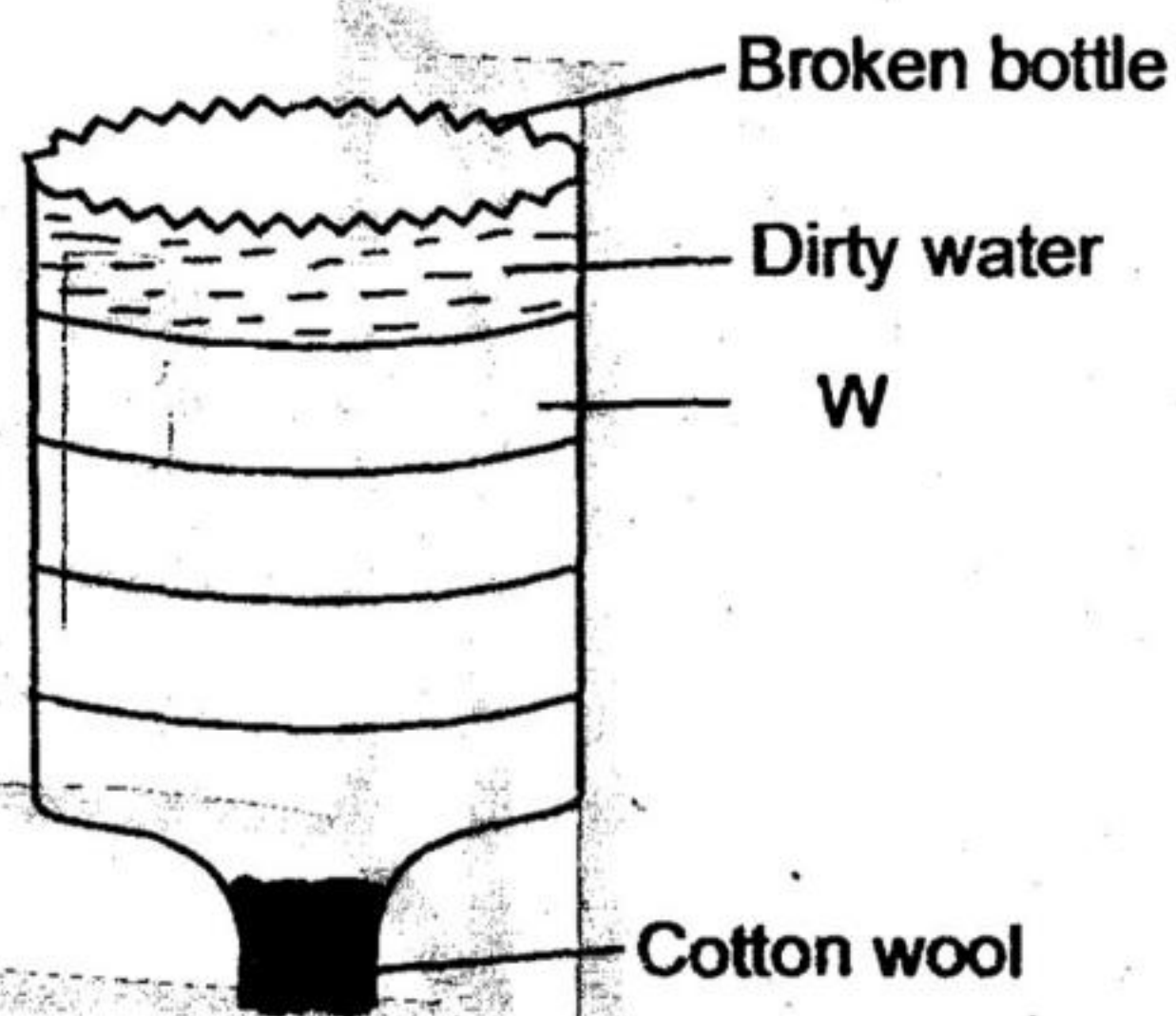
14. Which one of the following excretory products is excreted by the skin, lungs and kidneys?

- A. Excess water
- B. Urea
- C. Salts
- D. Carbon dioxide

15. When setting and carrying out an experiment on soil drainage, which one of the following need **NOT** be the same?

- A. Amount of water
- B. Amount of soil
- C. Type of soil
- D. Size of funnels

16. The illustration below shows a simple homemade water filter.



From the illustration letter, **W** as indicated will represent

- A. fine sand
- B. coarse sand
- C. pebbles
- D. charcoal

17. Which one of the following shows the correct order of flow of urine from the kidneys?

- A. Bladder → ureter → urethra
- B. Urethra → ureter → bladder
- C. Ureter → urethra → bladder
- D. Ureter → bladder → urethra

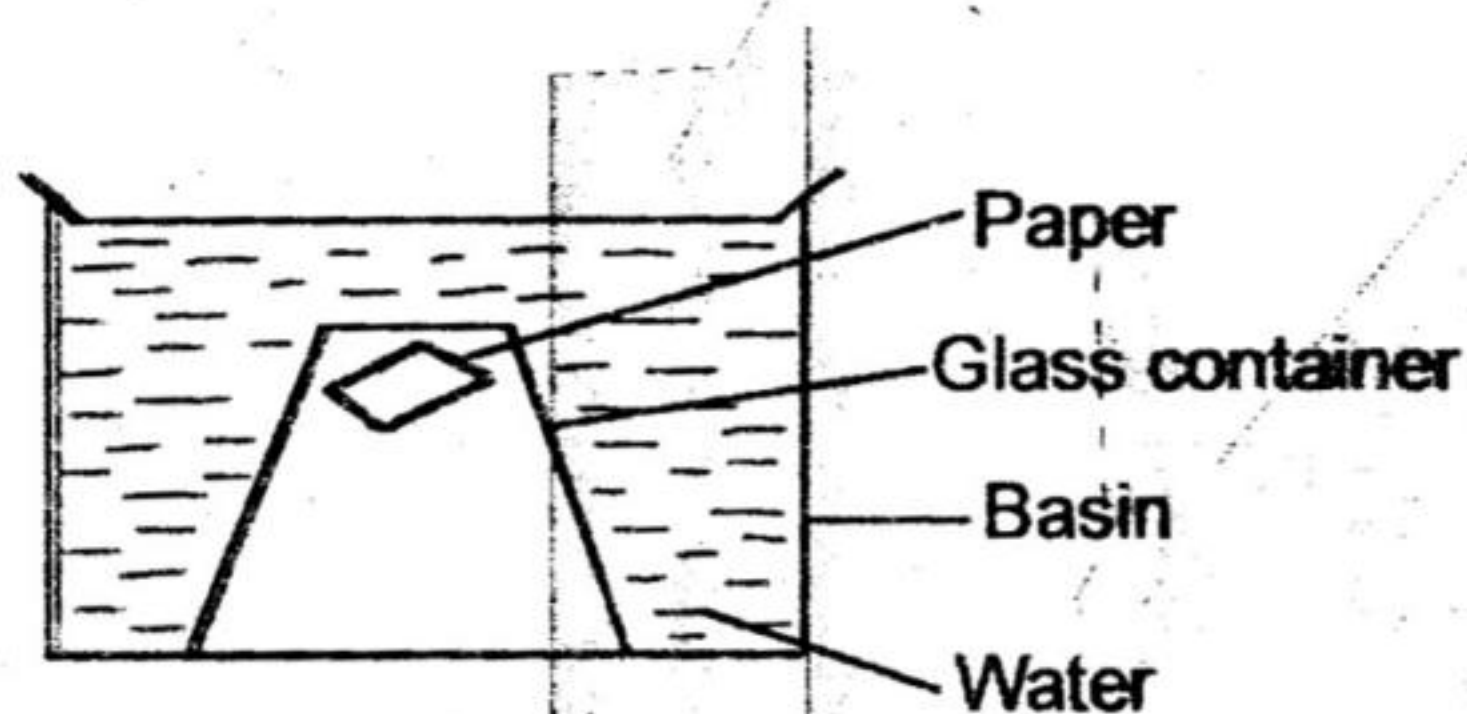
18. When hard water is mixed with soap it forms

- A. lather
- B. scum
- C. scale
- D. fur

19. Which one of the following is the function of fibre in the diet?
- Absorption of digested food
 - Getting rid of undigested food
 - Adding nutrients to the body
 - Helps in digestion of food

20. Lactating mothers need food rich in iron in order to
- protect the young baby against diseases
 - replace blood lost during parturition
 - increase milk production
 - develop strong bones in the baby

21. The illustration below was set by standard five pupils to investigate a certain property of matter.



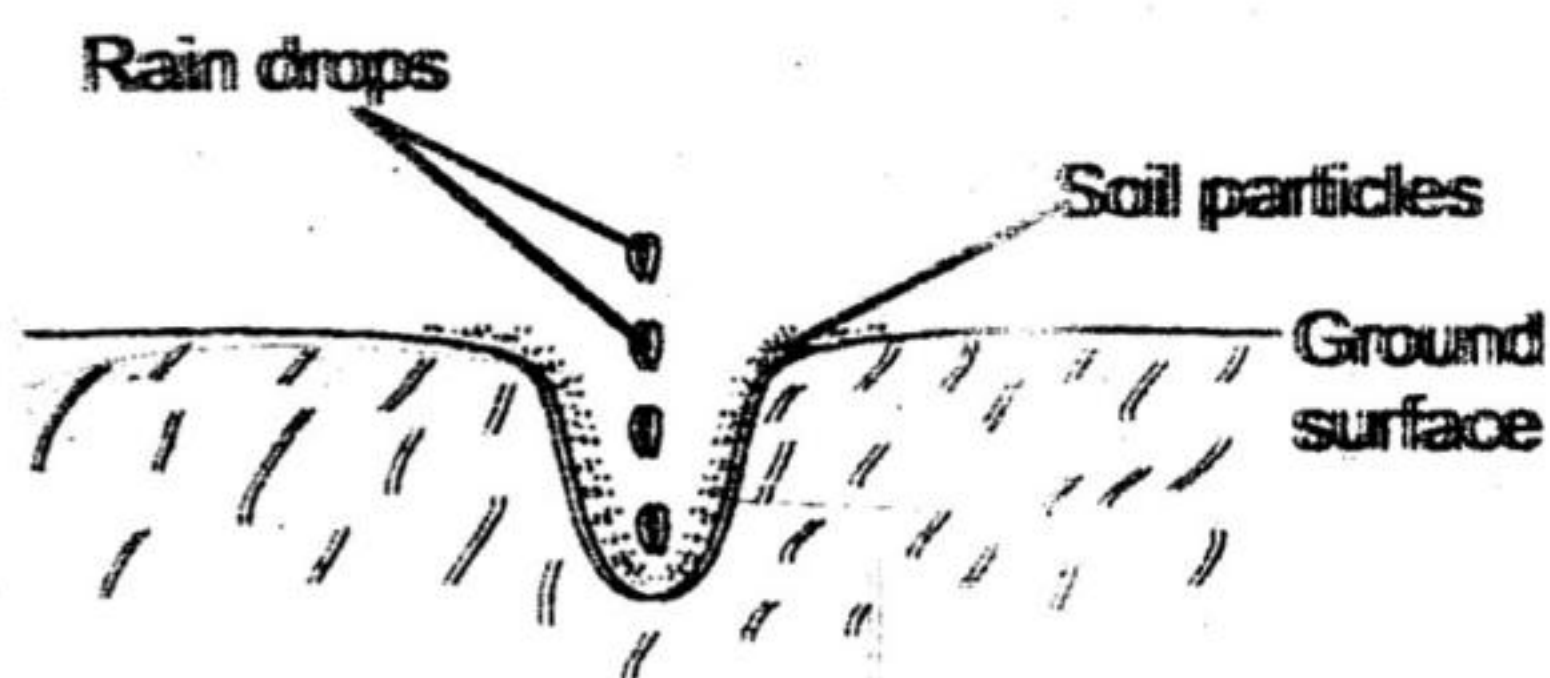
The property being investigated was

- water exerts pressure
 - water occupies space
 - air has mass
 - air occupies space
22. Which one of the following is NOT a sign of ill-health on crops?
- Reduced yields
 - Curled leaves
 - Stunted growth
 - Wilting

23. Farmers keep sheep and goats MAINLY for _____ and _____ respectively.
- meat and mutton
 - dairy milk and mutton
 - mutton and mutton
 - meat and mohair

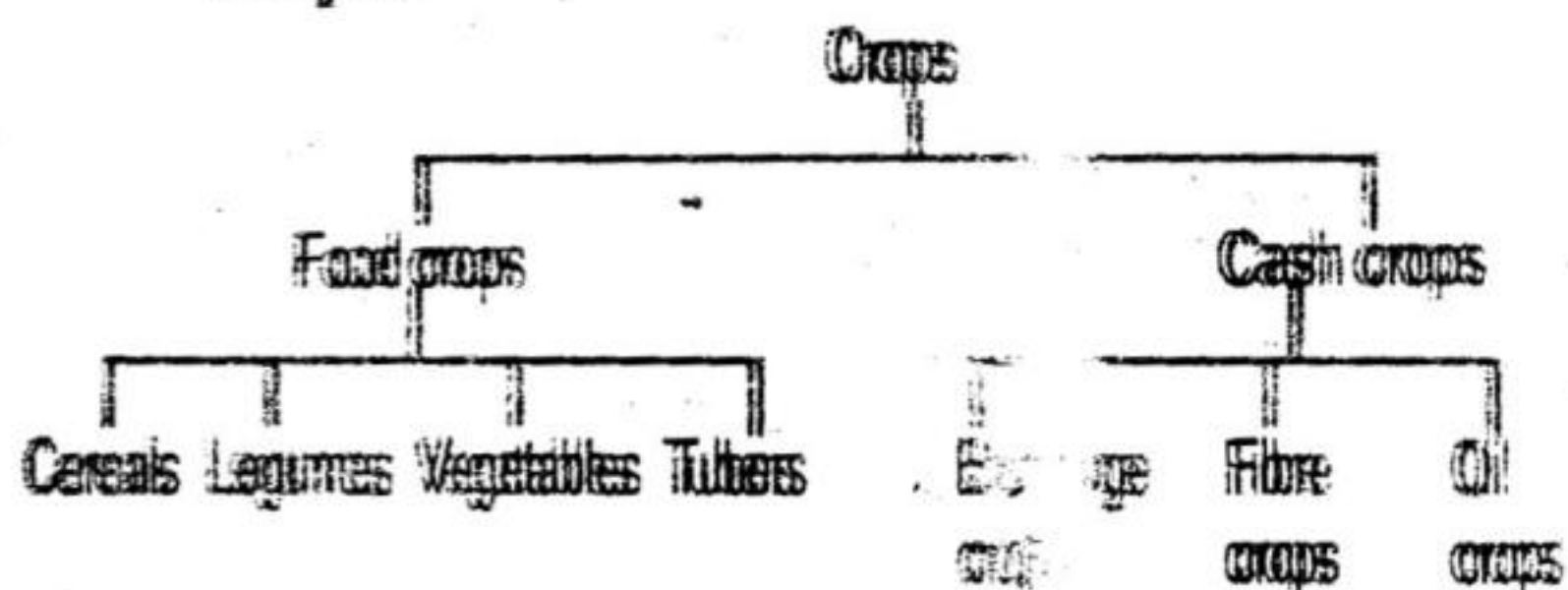
24. Which one of the following shows a pair of substances which CANNOT be separated easily?
- Water and cooking oil
 - Water and salt
 - Sugar and salt
 - Cooking flour and salt

25. Which one of the following methods of soil conservation can be used effectively to control the type of soil erosion shown below?



- Mulching
 - Contour farming
 - Terracing
 - Cover cropping
26. Which one of the following is NOT a method of grazing?
- Zero grazing
 - Herding
 - Rotational grazing
 - Paddock grazing

27. Below is a classification chart on types of crops.

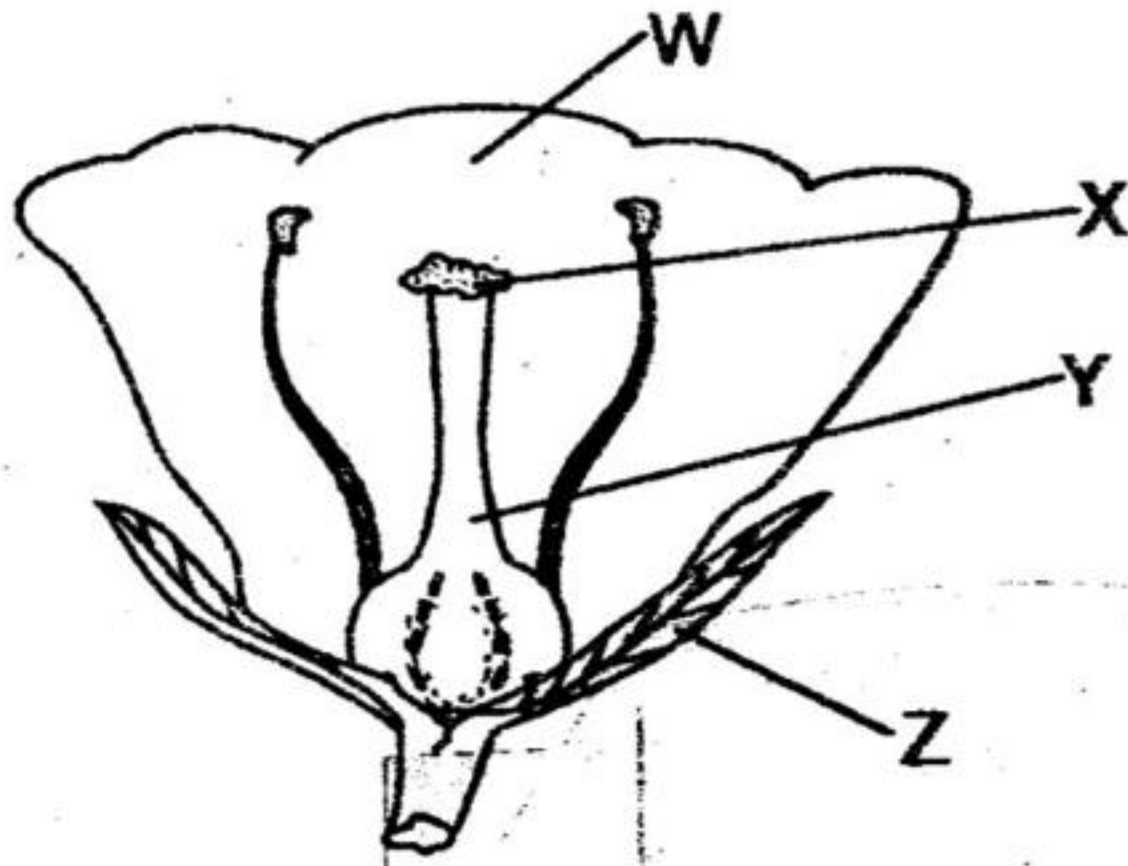


Which pair of the above crops will give the farmer same nutrients when eaten?

- Cereals and oil crops
- Legumes and fibre crops
- Fruits and tubers
- Beverages and fibre crops

28. A boat made of iron will float on water while a pin made of iron too will sink on the same water. This is because of their difference in
- size
 - shape
 - weight
 - material

29. The illustration below shows the reproductive organ of a plant.

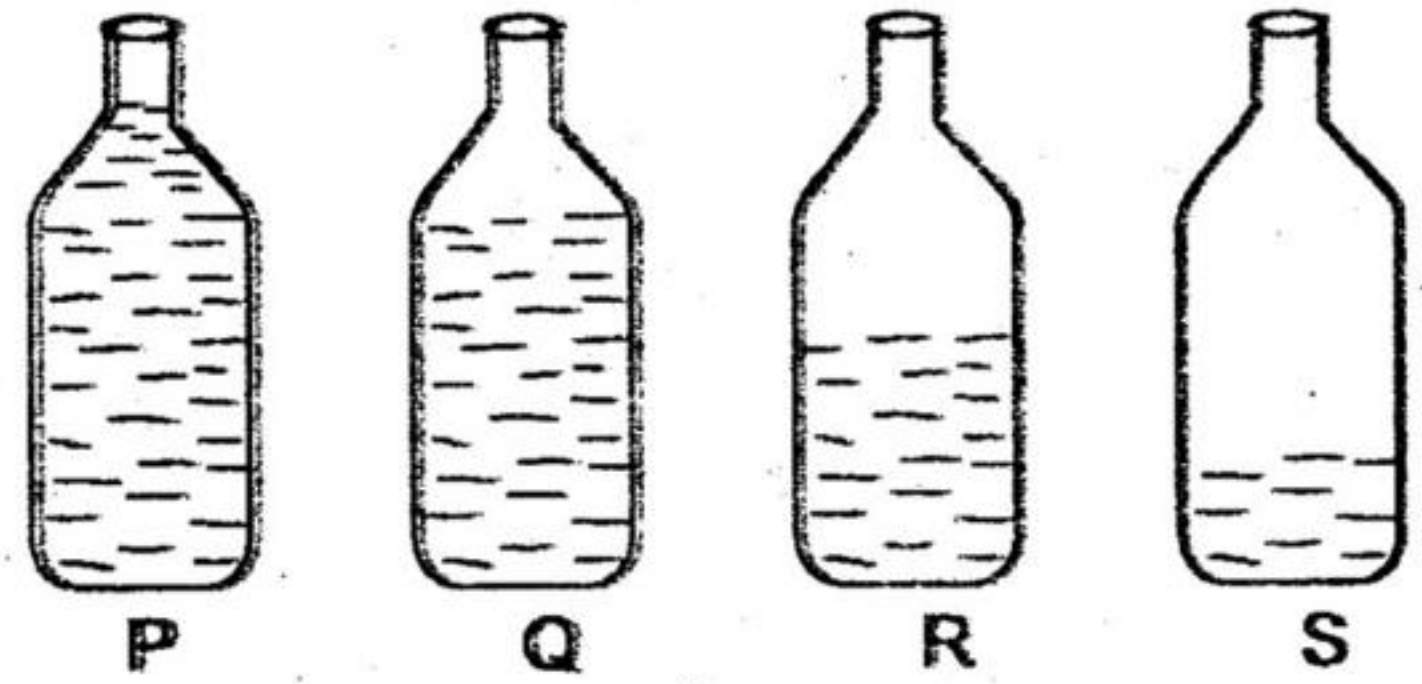


Which one of the above named parts is incorrectly matched with its function?

Part of the flower		Function
A.	W	Attracts insects for fertilisation
B.	X	Receives pollen grains
C.	Y	Fertilization takes place
D.	Z	Protects the young flower at bud stage

30. Digestion of food does **NOT** take place in the
- mouth
 - stomach
 - small intestines
 - large intestines
31. Which of the following does **NOT** have mammary glands?
- Whale
 - Shark
 - Bat
 - Spiny anteater

32. Which one of the following bottles will produce the highest sound when hit with a metal object?



- Q
- S
- P
- R

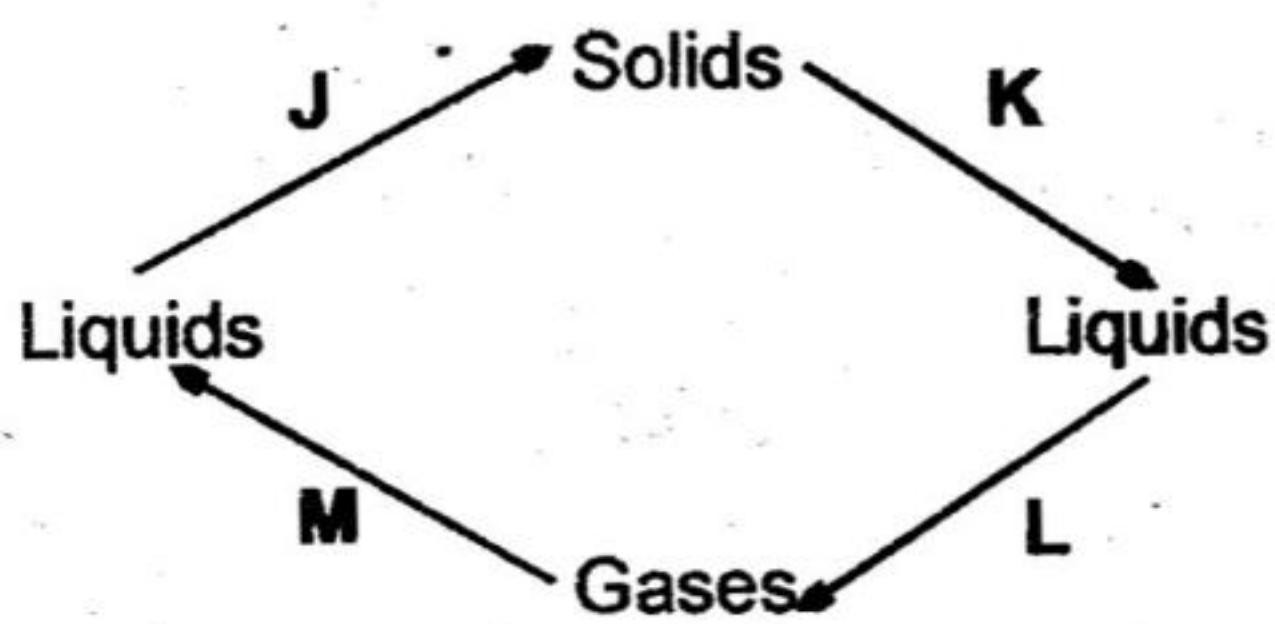
33. Which one of the following shows the 3rd and 6th planets in the solar system respectively?
- Earth and Saturn
 - Mars and Uranus
 - Earth and Uranus
 - Mars and Saturn

34. Dry fodder is
- silage
 - roughage
 - hay
 - concentrates

35. One of the following methods of food preservation preserves food by absorbing moisture. Which one?
- Use of honey
 - Canning
 - Use of low temperature
 - Salting

36. Which one of the following is a pair of substances with different states of matter?
- Wood and snow
 - Liquid honey and solid wax
 - Spirit and oxygen
 - Metal and water

37. The illustration below shows how matter can change from one state to another.



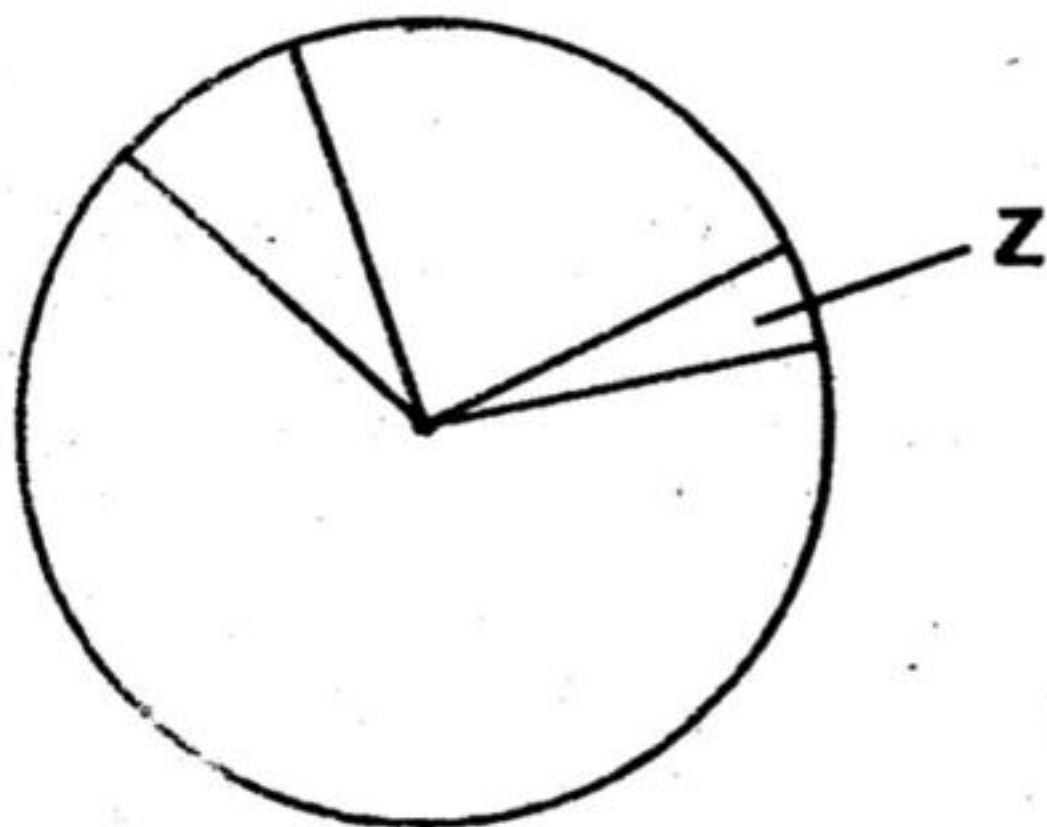
Which pair of processes as shown above require an increase in temperature?

- A. J and K
- B. K and L
- C. L and M
- D. M and J

38. The force that pulls things to the centre of the earth when they are dropped from a height is

- A. the force of friction
- B. the magnetic force
- C. the force of gravity
- D. inertia

39. Below is a pie chart that shows different air components in their relative amounts.



Which one of the following is **NOT** a function of the part of the air labelled **Z** on the pie chart?

- A. Supporting burning
- B. Good for photosynthesis
- C. Preserves soft drinks
- D. Making fire extinguishers

40. Which one of the following is **NOT** a cause of air pollution?

- A. Tobacco smoking
- B. Spraying farm chemicals
- C. Vehicle exhaust fumes
- D. Using excess fertilizers

41. The following are sources of electric current **EXCEPT** one. Which one?

- A. Car battery
- B. Generators
- C. Dam
- D. Solar energy panels

42. One of the following shows a pair of major non-living components of the environment only. Which one?

- A. Light and sound
- B. Animals and plants
- C. Air and water
- D. Soil and heat

43. Blood flows from the lungs through the

- A. pulmonary vein
- B. aorta
- C. pulmonary artery
- D. vena cava

44. Which one of the following shows a pair of storage pests only?

- A. Weaver bird and weevil
- B. Aphids and cutworms
- C. Stalkborers and aphids
- D. Rats and termites

45. Which one of the following methods of separating mixtures is incorrectly matched with the kind of particles it separates?

Method	The kind of mixture or particles separated
A. Picking	Big solid particles
B. Winnowing	A mixture of light and heavy solid particles
C. Sieving	A mixture of small and large solid particles
D. Using magnet	A mixture of magnetic particles

46. Which of the following has the position of the load between the effort and fulcrum when in use?
- A. Wheelbarrow
 - B. Claw hammer
 - C. Crow bar
 - D. Spade
47. Which one of the following is **NOT** a way of reducing friction?
- A. Using lubricants
 - B. Using rollers
 - C. Increasing treads
 - D. Streamlining
48. The **BEST** way to prevent a child from getting rickets is to
- A. feed the child with foods plenty of vitamin D
 - B. feed the child with foods like fruits plenty of vitamin C
 - C. feed the child with enough of a balanced diet
 - D. feed the child with foods rich in proteins
49. Which one of the following statements is **CORRECT**?
- A. Water expands when frozen
 - B. Water contracts when heat
 - C. Water expands when cooled
 - D. Water expands more than solids and gases when heat
50. Which one of the following is the **BEST** method of controlling weeds in a nursery bed?
- A. Digging out
 - B. Using chemicals
 - C. Uprooting
 - D. Slashing