



LEVEL - 2

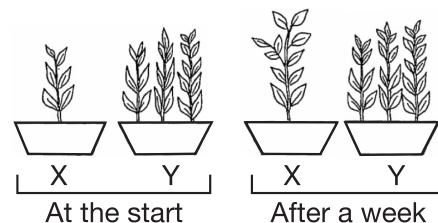
Year 2015-16

SCIENCE

1. Swati left two similar pots, X and Y, having green plants near her window for a week which she used to water regularly. Based on the given diagrams, which of the following statements could be true?

1. The plant in X grows faster than the plants in Y.
2. The plants in Y compete for nutrients and space.
3. The plant in X gets insufficient sunlight and air.

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

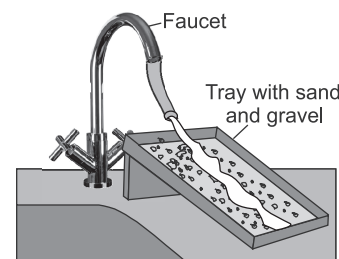


2. Two students designed the experiment shown here to study soil erosion.

A steady stream of water flows from the faucet into the tray holding sand and gravel. The water forms a channel by eroding some of the sand and gravel.

How can the students increase the amount of sand and gravel being eroded?

- A. By increasing the water temperature B. By adding coarse gravel to the tray
C. By increasing the tilt of the tray D. By reducing the amount of flowing water

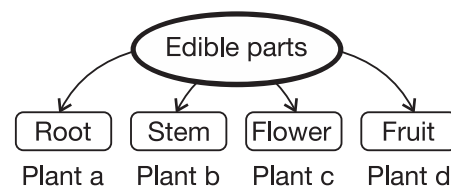


3. Select the action which involves a force different from the other three.

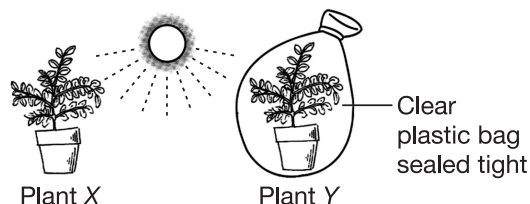
- A. Stretching a spring B. Kicking a football
C. Pressing a button on keyboard D. Shoving a friend

4. Different plants have different edible parts as shown in the classification chart. Which one of the following can be a, b, c and d ?

- | a | b | c | d |
|-----------|----------|-------------|----------|
| A. Onion | Ginger | Cabbage | Carrot |
| B. Carrot | Turmeric | Broccoli | Coconut |
| C. Turnip | Radish | Cauliflower | Potato |
| D. Radish | Onion | Cabbage | Ginger |



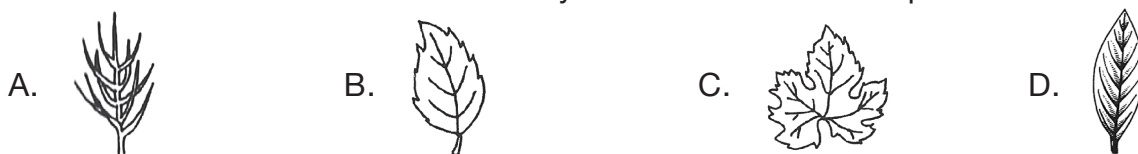
5. Two similar pots with similar plants were set up as shown in the figure. Both pots were left in the garden and watered daily with the same amount of water. What will happen to the plants X and Y after a month?



- A. Both plants X and Y will flower, but plant X will have more flowers than plant Y.
B. Plant X will grow taller than plant Y because plant Y will not get sunlight.
C. Plant Y will become bushy and its stem will become woody while plant X will remain as it is.
D. Plant Y will wither due to lack of air while plant X will grow normally.

SPACE FOR ROUGH WORK

6. Which of these leaves is most likely to be from a desert plant?

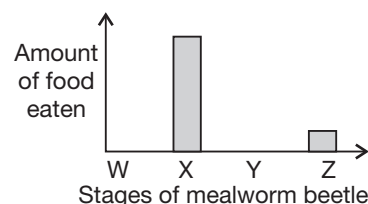


7. Read the given statement and select the option that correctly fills the blanks (i), (ii), (iii) and (iv).

The set of temporary teeth has total (i) teeth in which (ii) teeth are absent while the set of permanent teeth has (iii) teeth in each jaw and includes (iv) molars in each jaw.

- A. (i) - 20, (ii) - premolar, (iii) - 16, (iv) - 6 B. (i) - 20, (ii) - premolar, (iii) - 32, (iv) - 12
C. (i) - 32, (ii) - molar, (iii) - 20, (iv) - 6 D. (i) - 32, (ii) - molar, (iii) - 16, (iv) - 12

8. The given graph shows the amount of food eaten by a mealworm beetle at different stages in its life. The stages are not in an order but it is known that stage X comes after stage Y. Select the correct arrangement of different stages of the beetle.



- A. $Y \rightarrow W \rightarrow X \rightarrow Z$ B. $Y \rightarrow Z \rightarrow W \rightarrow X$ C. $Y \rightarrow X \rightarrow W \rightarrow Z$ D. $W \rightarrow Y \rightarrow Z \rightarrow X$

9. Which one of the following appliances changes electrical energy into both light and sound energy?

- A. Iron B. Room-heater C. Television set D. Tube light

10. Select the option that correctly compares clothes made from natural and synthetic fibres.

Clothes made of natural fibres	Clothes made of synthetic fibres
A. Quick drying	Slow drying
B. Non-porous	Porous
C. Biodegradable	Non-biodegradable
D. Non-waterproof	Waterproof

11. Match column I with column II and select the correct option.

Column I	Column II
(a) Cockroach	(1) Maggot
(b) Butterfly	(2) Caterpillar
(c) Housefly	(3) Tadpole
(d) Frog	(4) Nymph
A. (a)-(1), (b)-(2), (c)-(3), (d)-(4)	B. (a)-(3), (b)-(2), (c)-(4), (d)-(1)
C. (a)-(1), (b)-(2), (c)-(4), (d)-(3)	D. (a)-(4), (b)-(2), (c)-(1), (d)-(3)

SPACE FOR ROUGH WORK

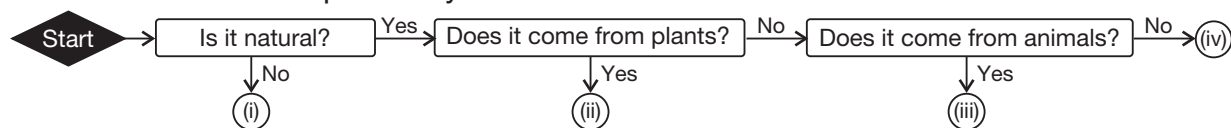
12. Name of some fibres can be obtained by using the letters given in the following box.

I O L C S T K O T N O L

Which of the following objects CANNOT be made using only these fibres?

- A. Rugs B. Curtains C. Raincoats D. Both A and C

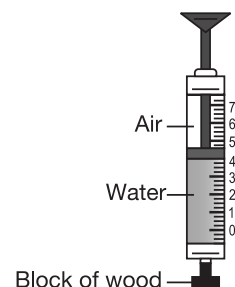
13. Study the given flow chart carefully. Cotton and metal are represented by the numbers _____ and _____ respectively.



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

14. Shruti took a syringe filled with water as shown here. She applied large pushing force on the piston. What can be the level of water in the syringe now?

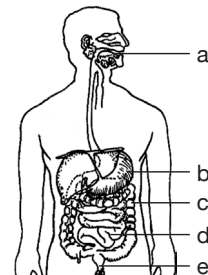
- A. 0 mL
B. 2 mL
C. 4 mL
D. 6 mL



15. Refer to the given figure showing digestive system.

Where does the digestion of food begin and end respectively?

- A. b, e
B. c, d
C. a, d
D. a, e



16. A croton plant has colourful leaves. Which one of the following statements is true regarding the croton plant?

- A. It can make food because it has yellow pigments in its leaves.
B. It can make food because its mature stems can perform photosynthesis.
C. It can make food because its leaves contain chlorophyll.
D. It is a parasitic plant and cannot make food, hence it obtains food from other green plants.

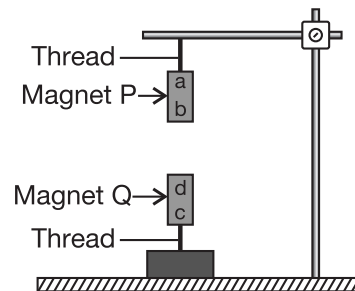
17. What is common between the fifth and eighth planet of our solar system?

1. They are made up of frozen gases. 2. They are made up of rocks and iron.
3. They are neither hot nor cold.
4. They are called interior planets or inner planets.

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

SPACE FOR ROUGH WORK

18. Akshat arranged two magnets in a set up and the outcome is shown in the given figure. Select the option that correctly identifies the poles a, b, c and d of the magnets.



- | | a | b | c | d |
|----|----------|----------|----------|----------|
| A. | North | South | North | South |
| B. | South | North | North | South |
| C. | North | North | South | South |
| D. | South | North | South | North |

19. Which of these events are associated with the land breeze?

- A. Wind blows from areas of high pressure to areas of low pressure.
- B. Cool air blows from the sea to the land.
- C. Land gets heated up faster than the sea.
- D. Warm air rises up over the land.

20. In modern times, _____ determine the clothing of people living at a particular place.

- A. Cultural beliefs
- B. Climate
- C. Easily available fibres
- D. Both A and B

21. The method of food preservation which involves _____ is hidden in the given word grid.

- A. Adding excess sugar
- B. Adding excess salt
- C. Heating the food for a period then cooling suddenly
- D. Storing food in microbe free containers

A	G	S	S	J	D	Q	C	P
B	K	U	A	P	R	R	A	I
L	J	E	L	L	Y	I	N	G
M	N	G	T	P	I	T	N	C
U	Z	A	I	S	N	V	I	K
R	S	R	N	N	G	U	N	L

22. Megha observed the Moon on 5th December and drew its sketch as shown. What will be the shape of the Moon on 2nd January?



5th December

- A.
- B.
- C.
- D.

23. Match column I with column II and select the correct option.

Column I

- (p) Sand
- (q) Gravel
- (r) Clay
- (s) Humus
- (t) Topsoil

Column II

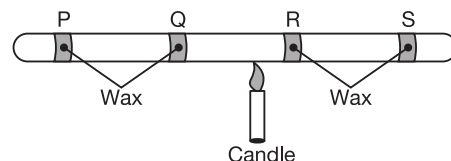
- (1) Tiny stones
- (2) Soil erosion
- (3) Fine powder
- (4) Heavy and sticky when wet
- (5) Makes the soil fertile

- A. p - (4), q - (3), r - (1), s - (5), t - (2)
- B. p - (3), q - (1), r - (4), s - (5), t - (2)
- C. p - (3), q - (4), r - (1), s - (5), t - (2)
- D. p - (5), q - (2), r - (1), s - (4), t - (3)

SPACE FOR ROUGH WORK

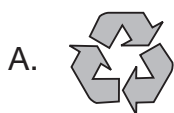
24. The movements of the hot and cold air set up a convection current. This explains why ____.
- An air conditioner is placed at the ceiling end of the wall.
 - A heater is placed as low as possible in room.
 - The back of a refrigerator is often painted black.
 - Both A and B

25. Study the given diagram carefully. Candle wax was coated at different parts P, Q, R and S of the metal rod. Which one of the following is the correct order in which the wax would melt?



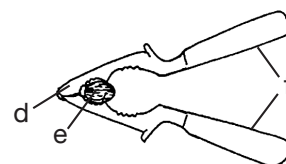
- P, Q, R, S
- S, R, Q, P
- R, Q, P, S
- R, Q, S, P

26. In order to save our environment, we should prefer to use items with which of the following signs?



27. The given diagram shows a nutcracker. Identify the labels d, e and f and select the option that correctly identifies the components denoted by these labels in other simple machines.

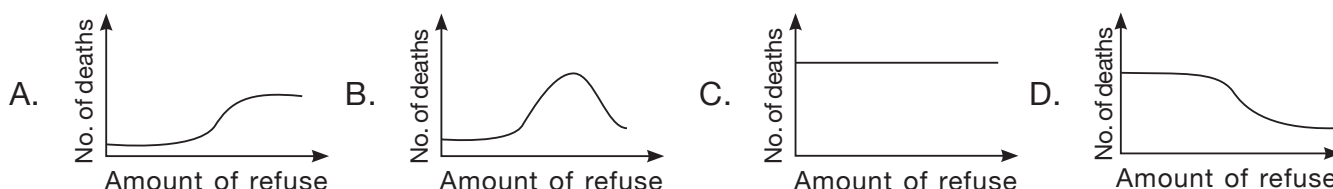
- d - The bend that joins two arms of a tong
- f - The screw that fixes the two parts of a scissor together
- e - The elbow of our hand
- f - The front clawed end of a bottle opener



28. Harshit wanted to find out among the four locations - playground, science laboratory, school garden and the bus stop outside his school - which is the most polluted. He placed four glass tiles smeared with petroleum jelly at the four locations for the same period of time for one day and recorded his observation. However, his teacher told him that his experiment was not reliable because he did not ____.

- Wet the glass tiles
- Use tiles made of different materials
- Repeat the experiment over a few days
- Examine the tiles with hand lens

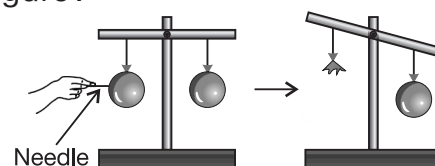
29. Which of the following graphs shows the relationship between the number of deaths of organisms in a canal and the amount of refuse in it?



SPACE FOR ROUGH WORK

30. Which of the following can you deduce from the given figure?

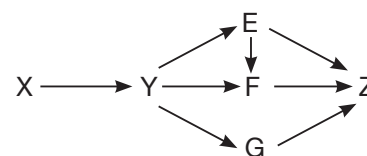
- A. Air moves things.
- B. Air has mass.
- C. Air has no fixed volume.
- D. Air occupies space.



ACHIEVERS SECTION

31. Refer to the given food web. If all the F organisms are killed, which one of the following will happen?

- A. E would have to find new sources of food.
- B. Z would have more competitors for food.
- C. E would decrease in number.
- D. Z would eat more of E and G.



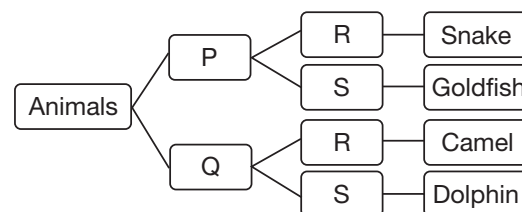
32. Rohit carried out an experiment to test the hardness of objects 1, 2 and 3. The results of the experiment are shown here.

Scratch Test	Results	Scratch Test	Results
(i)	Scratch marks	(ii)	
(iii)		(iv)	Scratch marks

Which of the following shows the correct order of hardness of 1, 2 and 3, starting from the hardest?

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

33. Some animals are grouped according to their similarities in the given classification chart. Which option gives the correct information for characters P, Q, R and S respectively?

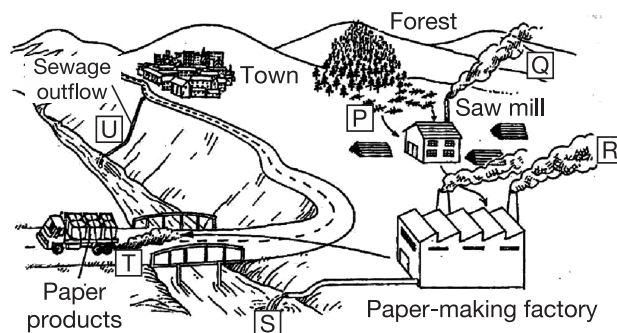


P	Q	R	S
A. Live in water	Live on land	Animals with hair	Animals with scales
B. Animals with hair	Animals with scales	Live in water	Live on land
C. Live in water	Live on land	Animals which give birth to their young alive	Animals which lay eggs
D. Animals with scales	Animals with hair	Live on land	Live in water

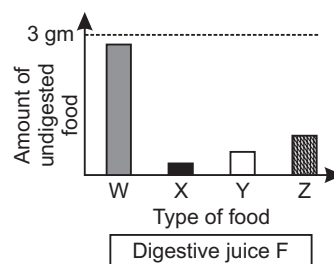
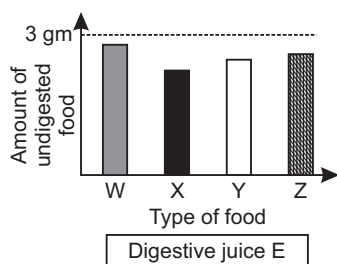
SPACE FOR ROUGH WORK

34. Study the given diagram carefully. Activities occurring at which place could cause water pollution and acid rain respectively?

Water pollution	Acid Rain
A. P and Q	S and U
B. S and U	Q, R and T
C. Q and R	S and T
D. S and R	P, Q and U



35. Rati placed 3 gm each of food W, X, Y and Z in digestive juices E and F for 3 hours. After 3 hours, she recorded the amount of undigested food left in each digestive juice and plotted the graphs as shown below.



Based on the information deduced from the given graphs :

- Which of these foods W, X, Y and Z is rich in dietary fibres?
- If digestive juice E is from saliva then which component in the given foods W, X, Y and Z is being digested?

- | | |
|---------------------------|---------------------------|
| A. (i) - Z, (ii) - Starch | B. (i) - W, (ii) - Starch |
| C. (i) - Y, (ii) - Fats | D. (i) - W, (ii) - Fats |