



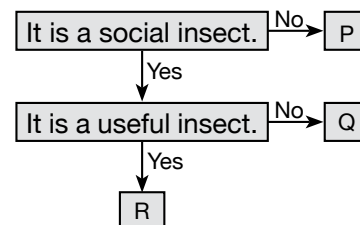
LEVEL - 2

Year 2017-18

SCIENCE

1. Refer to the given flow chart and select the correct option.

P	Q	R
A. Ant	Silkworm	Termite
B. Mosquito	Termite	Honeybee
C. Grasshopper	Silverfish	Housefly
D. Honeybee	Locust	Silverfish



2. Ten male animals, each of type X and Y were living together for last few months in captivity in a well defined area (full of greenery). Other types of animals were not present in this area. Then an animal Z was introduced in this area. After few days, their numbers were counted and tabulated as shown here.

X	Y	Z
10	2	1

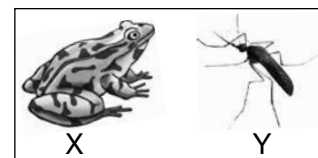
What does this indicate?

- A. Z is a carnivore. B. Y is a herbivore. C. X is a herbivore. D. All of these
3. Read the given paragraph.

X and Y are the two planets of our Solar System. X is the hottest planet and is often referred to as Morning or Evening star. Surface of Y is covered by red dust so it appears red and is often referred to as Red planet.

Identify planets X and Y and select the correct option regarding them.









- A. X has one moon whereas Y has sixty two moons.
 B. Y is an inner planet made up of rocks and iron whereas X is an outer planet made up of gases.
 C. Indian name of X is *Shukra* whereas that of Y is *Mangal*.
 D. Both X and Y have rings around them but Y is the fastest spinning planet.
4. Identify the animals shown in the picture. Find out what is common between them and select the correct option.



- A. Both X and Y lack backbone.
 B. Both X and Y have four stages in their life cycles.
 C. Both X and Y lay eggs in water.
 D. Newly hatched young ones of both X and Y resemble adults respectively.
5. Parts near equator have _____ marked seasons because _____.
 A. No, they face the Sun for six months continuously
 B. Clearly, they face the Sun for six months continuously
 C. No, they retain at almost same angle to the Sun throughout the year
 D. Clearly, they retain at almost same angle to the Sun throughout the year
6. Avinash grouped plants on the basis of their habitats. By mistake, he placed one wrong plant in each group. Identify the odd member of each group and select the correct option.
 Group I : Duckweed, *Hydrilla*, *Opuntia* Group II : Banyan, Mango, *Acacia*
 Group III : Barrel cactus, Joshua tree, *Vallisneria*
 A. Duckweed in group I is incorrectly placed and should be replaced with arrowhead plant.
 B. Mango in group II should be interchanged with Joshua tree in group III.
 C. *Opuntia* in group I should be interchanged with *Vallisneria* in group III.
 D. Banyan in group II is incorrectly placed and should be replaced with gulmohar.

SPACE FOR ROUGH WORK

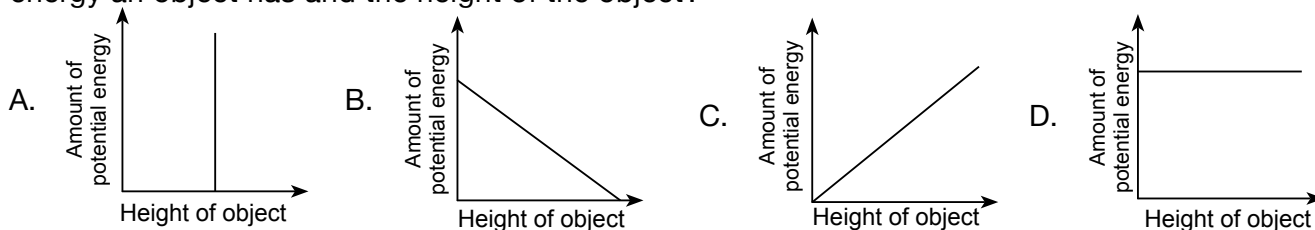
7. Select the option that on unscrambling gives the name of a clothing item worn in summers.
A. RFMUFL E B. WASTER E C. OSTHSR D. NADGCR I A
8. Radhika observed crescent Moon on 28th November. Which phases of Moon will she observe on 5th December and 12th December, respectively?

5 th December		12 th December			
A.			B.		
C.			D.		

9. Study the given relationship and select the option that satisfies the same relationship.

Fenugreek : Mint :: Carrot : Beetroot

- A. Coriander : Spinach :: Radish : Turnip B. Chickpea : Sugarcane :: Ginger : Turmeric
C. Lettuce : Cabbage :: Broccoli : Potato D. Basil : Cauliflower :: Onion : Zamikand
10. Which one of the following graphs shows the correct relationship between the amount of potential energy an object has and the height of the object?

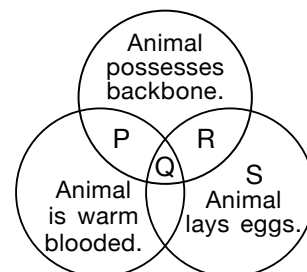


11. The name of which of the following CANNOT be obtained by using the letters given in the box?
(You can use each letter more than once.)

H E F O D R N S A W T I

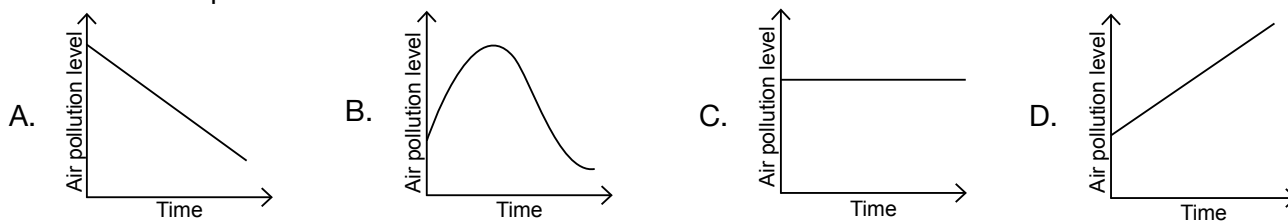
- A. It is formed by condensation of atmospheric water vapour on cold exposed surfaces like leaves of plants.
B. It is formed when atmospheric water vapour condenses and freezes on a surface which cools past dew point.
C. It is a form of precipitation occurring in plains and leading to floods at times.
D. It forms when thunderstorm updrafts are strong enough to carry water droplets above the freezing level causing them to freeze.
12. Refer to the given Venn diagram and select the option that correctly identifies animals P, Q, R and S.

P	Q	R	S
A. Platypus	Krait	Crocodile	Salamander
B. Porcupine	Stork	Spadefoot toad	Housefly
C. Cassowary	Caiman	Arowana	Viper
D. Ladybird	Rhea	Flamingo	Shrew



SPACE FOR ROUGH WORK

13. The following graphs show the level of air pollution in a particular area. Which graph depicts that vehicular transport has increased in this area over time?



14. Which of the following is NOT hidden in the given word grid?

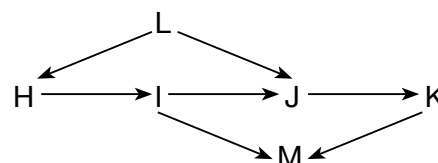
- A. Structure present in polar bear that protects it from cold and a structure present in *Scoliodon* that enables it to breathe underwater.
 B. Behavioural adaptation that helps Siberian cranes to escape cold winters of their homeland and structural adaptation that helps them to fly.
 C. Phenomenon wherein chameleon blends with its surrounding by changing its skin colour to remain unnoticed by its prey.
 D. Phenomenon wherein a leaf insect externally resembles a plant leaf to remain unnoticed by its predator.

A	H	P	Y	X	A	S	A	P	T	L
B	L	U	B	B	E	R	M	N	P	Q
W	U	M	G	Z	S	C	A	T	E	S
V	N	F	E	A	T	H	E	R	S	P
P	P	Q	H	M	I	M	I	C	R	Y
U	S	W	T	W	V	M	T	N	L	X
Q	M	I	G	R	A	T	I	O	N	B
T	A	N	U	Q	T	U	V	W	X	Q
S	R	G	N	G	I	L	L	S	Y	X
Z	S	S	T	W	O	P	S	T	Z	P

15. Letters H to M in the given food web represent six animals.

Which of the following is correct regarding this?

- A. A decrease in population of H will result in an increase in populations of I and L.
 B. An increase in population of K will result in an increase in populations of I and J.
 C. A decrease in population of M will result in an increase in populations I and K.
 D. An increase in population of L will result in a decrease in populations of H and J.



16. Diseases are categorised into four groups on the basis of their causative microbes, each containing one wrong member. Identify the group in which wrong member is encircled correctly.

- A. Tuberculosis, Anthrax, Chicken pox B. Tetanus, Measles, Leprosy
 C. Dengue, Malaria, Chikungunya D. Cholera, Plague, Sleeping sickness

17. Match column I with column II and select the correct option from the given codes.

Column I

- (a) Lever
 (b) Wheel and Axle
 (c) Inclined plane

Column II

- (i) Bicycle pedal
 (ii) Scissors
 (iii) Slide
 (iv) Steering wheel
 (v) Ramp
 (vi) See-saw

- A. (a) – (i, v), (b) – (ii, iii), (c) – (iv, vi)
 B. (a) – (ii, vi), (b) – (i, iv), (c) – (iii, v)
 C. (a) – (ii, v), (b) – (iii, vi), (c) – (i, iv)
 D. (a) – (iii, iv), (b) – (i, ii), (c) – (v, vi)

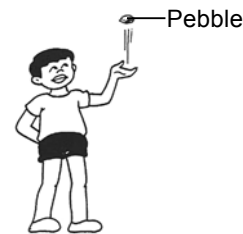
SPACE FOR ROUGH WORK

18. Select the INCORRECT statement.

- A. Overcooking destroys nutrients hence food should not be overcooked.
- B. All vegetables and fruits must be cooked before eating.
- C. Sugaring, salting and oiling food slow down growth of microbes on it.
- D. All of these

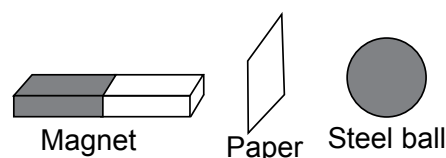
19. Sumeet threw a pebble directly upwards. Which one of the following statements is correct regarding this?

- A. Gravity will have no effect on the pebble until it reaches its highest point.
- B. The pebble will keep going upwards at the same speed until it reaches its highest point.
- C. The pebble will keep going upwards until gravity ceases to act on it.
- D. Gravity will act on the pebble both while it is going up and also while it is falling down.



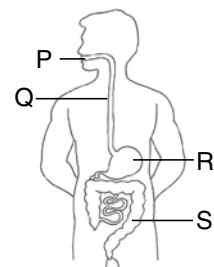
20. Akash set up an experiment as shown here. Which of the following holds true regarding this?

- A. Ball will be attracted by the magnet as the paper is magnetic.
- B. Ball will be attracted by the magnet as the paper is very thin.
- C. Ball will be attracted by paper as it is magnetic.
- D. Ball will not be attracted by magnet as paper is non-magnetic.



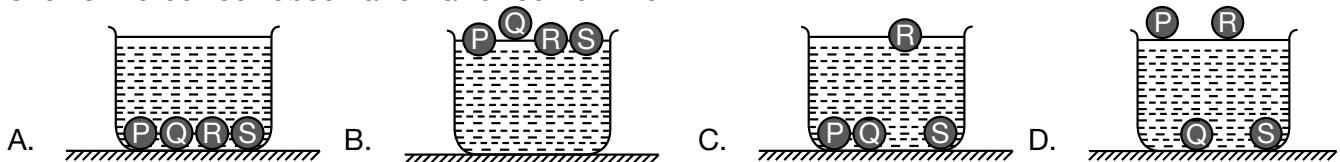
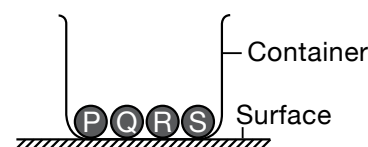
21. The given figure shows human digestive system with some parts labelled as P, Q, R and S. Which of the following labelled parts is correctly matched with its function?

- A. Q – Food is mixed with different digestive juices
- B. P – Digestion starts here
- C. R – Most of the water is absorbed here
- D. S – Digestion of all food components takes place here



22. Four similar sized balls made of clay (P), iron (Q), styrofoam (R) and glass (S), respectively were put in a container as shown in the given diagram.

Then some water was added to the container. Which of the following shows the correct observation after some time?



23. In which of the following cases, a person is doing work in terms of science?

- A. Radhika is pushing against a stationary wall.
- B. Priya is sleeping.
- C. Meena is standing at bus stop waiting for her school bus.
- D. Gayatri is opening the main door of her house on hearing the door bell.

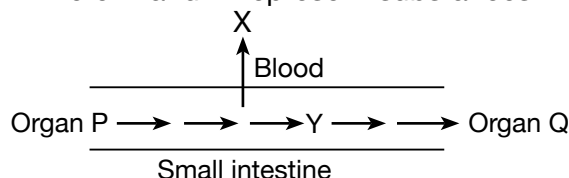
SPACE FOR ROUGH WORK

24. Study the given word-chop table. Which of the following sets of boxes will give the names of a cooking method (X) and a food preservation method (Y) respectively?

- X** **Y**
- A. 11 and 7 9 and 12
 B. 4, 6 and 7 3, 5 and 7
 C. 1, 12 and 7 2, 8 and 7
 D. 6 and 10 4 and 8

1	DR	2	CAN	3	PI
4	ROA	5	CKL	6	ST
7	ING	8	NI	9	JEL
10	YI	11	FR	12	YIN

25. Refer to the given diagram where X and Y represent substances while P and Q represent organs.



Which of the following best represents organs P and Q; and substances X and Y?

- | Organ P | Organ Q | Substance X | Substance Y |
|--------------------|-----------------|--------------------|--------------------|
| A. Stomach | Pancreas | Water | Undigested food |
| B. Large intestine | Stomach | Digested food | Water |
| C. Large intestine | Anus | Digested food | Water |
| D. Stomach | Large intestine | Digested food | Undigested food |

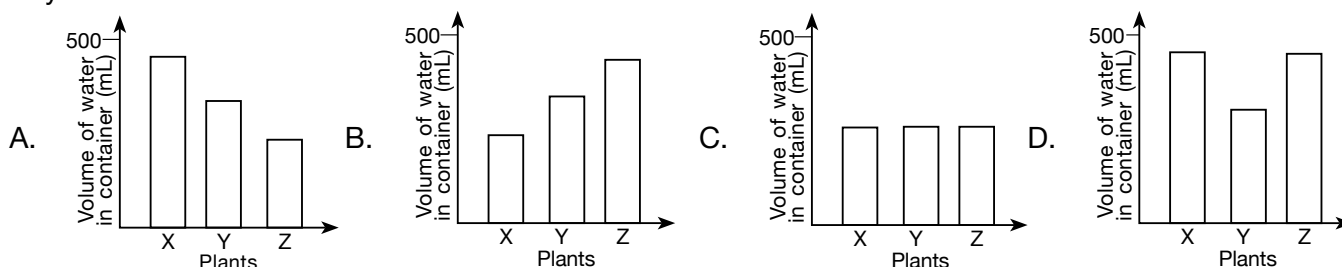
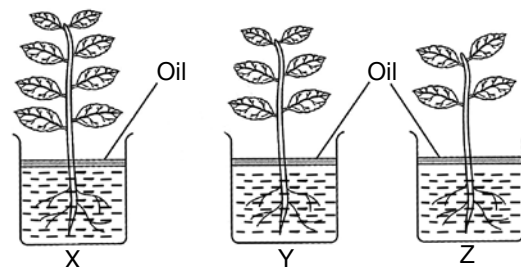
26. Read the given paragraph with few blanks and select the option that correctly fills up any three of these blanks.

Human adults have P types of teeth in their dentition. These are Q, R, S and molars. Q helps in cutting or biting food. There are T Q in each jaw. R teeth are absent in milk teeth set but there are U such teeth in permanent teeth set. S are four in number and helps in V food.

- A. P-8, R-Premolars, V-Grinding B. Q-Incisors, T-4, U-8
 C. S-Canines, T-8, U-4 D. P-8, S-Premolars, V-Tearing

27. Three plants (X, Y and Z) were put into three identical containers filled with 500 mL of water as shown in the figure. Some oil was poured into each container which formed a thin layer above water to prevent water loss through evaporation. The containers were kept outdoor at the same place.

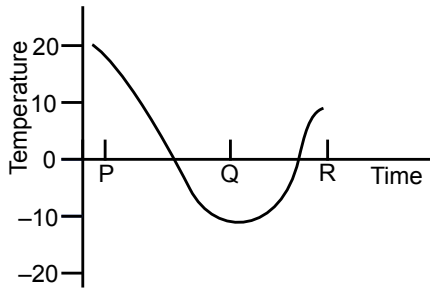
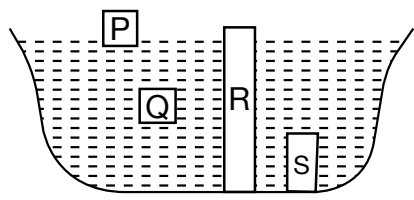
Which of the following graphs correctly depicts the volume of water in the three containers after two days?



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28. Which of the following activities will cause both air and water pollution?
- Enhanced vehicular transport.
 - Bathing animals and washing clothes in water bodies.
 - Throwing solid waste like polybags and tin cans in water bodies.
 - Burying domestic biodegradable waste underground.
29. Starting from first letter, strike out every alternate letter in the given letter groups to get the name of the traditional clothing of Japanese women.
- THPAQNRBSOTKG
 - LKWIOMXOPNZOE
 - MSPAGRLEDET
 - NJBADCFKGEHTI
30. 'X' is an animal that lives inside the body of another organism of different species. It has specialised organ to suck blood.
X could be _____.
- Mosquito
 - Hookworm
 - Head louse
 - Leech

ACHIEVERS SECTION

31. Refer to the given graph showing temperature changes at a place over a year (P – R) and select the correct option regarding it.
- People inhabiting the given place mostly wear clothes made up of fibres sourced from some mammals.
 - The given area receives precipitation in the form of rain at time Q whereas precipitation in snow form is witnessed at times P and R.
 - Plants like mango and *peepal* and animals like kangaroo rat and fennec fox are commonly found at this place.
 - Plants inhabiting this place have thin broad leaves which lack stomata whereas animals of this area show bright colouration and possess thin, moist glandular skin.
- 
32. The given diagram shows the positions of water plants P, Q, R and S in a pond. Four pupils Vikas, Shilpi, Beena and Rahul were asked to identify the positions of four plants, viz. water hyacinth, *Hydrilla*, coontail and water lily in the pond. Which of these pupils has identified the positions of all given water plants correctly?
- 

Pupil	Position of plant in the pond			
	Water hyacinth	<i>Hydrilla</i>	Coontail	Water lily
A. Vikas	P	Q	R	S
B. Shilpi	S	P	Q	R
C. Beena	P	S	Q	R
D. Rahul	Q	P	S	R

SPACE FOR ROUGH WORK

33. Reema tested the properties of four objects, P, Q, R and S and tabulated her results as follows:

Select the option that correctly identifies any two of these objects.

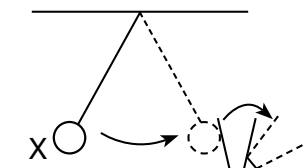
- A. Q – Steel container, R – Styrofoam cup
 B. P – Rubber mat, S – Aluminium plate
 C. P – Windscreen, R – Clay pot
 D. Q – Ceramic tile, S – Rubber band

Property \ Object	P	Q	R	S
Flexible	✓	×	×	×
Water proof	✓	✓	✓	✓
Transparent	×	✓	×	×
Good conductor of heat	×	×	×	✓
Breaks easily	×	×	×	×

34. A pendulum bob when released from position X, hits a plastic cup on ground and toppled it to its side.

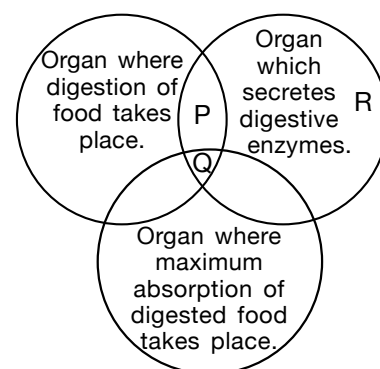
Which one of the following correctly shows the conversions of energy that took place in this experiment?

- A. Potential energy of pendulum bob → Kinetic energy of pendulum bob → Potential energy of plastic cup → Sound energy
 B. Potential energy of pendulum bob → Kinetic energy of pendulum bob → Kinetic energy of plastic cup → Sound energy
 C. Kinetic energy of pendulum bob → Potential energy of plastic cup → Sound energy
 D. Kinetic energy of pendulum bob → Potential energy of pendulum bob → Kinetic energy of plastic cup → Sound energy



35. Refer to the given Venn diagram and select the INCORRECT option regarding organs P, Q and R.

- A. P could be a muscular organ which churns the food and helps in mixing it with acid.
 B. Q receives digestive juices from R and liver for complete digestion of all food components.
 C. R could be pancreas which secretes different digestive juices for digestion of proteins, fats and carbohydrates.
 D. P could be large intestine which is the longest and widest part of the gut.



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