



Class 5



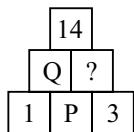
Set A

Year 2014

LOGICAL REASONING

1. Find the value of P and Q respectively, if each number is the sum of the two numbers directly below it.

- A. 8, 6
B. 3, 6
C. 5, 6
D. 9, 10



2. Find the missing figure which completes the given figure pattern.



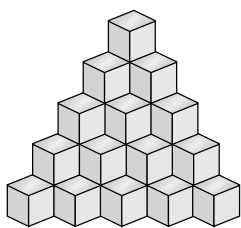
- A. B.
C. D.

3. Manha remembers that her father's birthday is after 10th but before 15th of October. Her sister remembers that her father's birthday is before 20th but after 13th of October. On which day is her father's birthday?

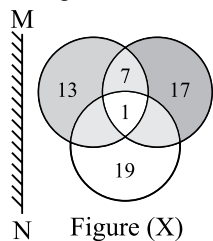
- A. 15th
B. 13th
C. 14th
D. 16th

4. The model of a tower shown here is made up of unit cubes stacked on top of each other. How many unit cubes in all are used to form the tower?

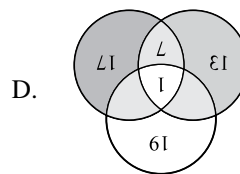
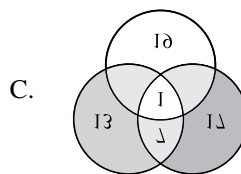
- A. 35
B. 36
C. 37
D. 38



5. Select the correct mirror-image of Figure (X), if the mirror is placed along MN.

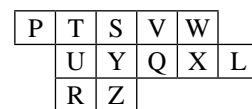


- A. B.

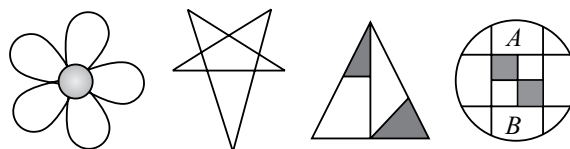


6. If _____ square is removed from the given figure, the perimeter of the figure will be decreased.

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



7. _____ figures have atleast one line of symmetry.



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

8. Which of the following options is exactly embedded or hidden in Figure (X)?

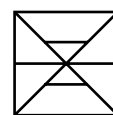


Figure (X)

- A. B.
C. D.

9. 21 students are standing in a line. Deepak is in the middle. What is his position from left as well as from right?

- A. 12th
B. 10th
C. 11th
D. 9th

10. Find the combination of numbers from the options so that letters arranged accordingly forms a meaningful word.

E R B K N O
1 2 3 4 5 6

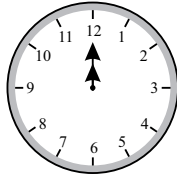
- A. 3, 2, 6, 1, 4, 5
B. 3, 2, 6, 4, 1, 5
C. 3, 6, 2, 1, 4, 5
D. 3, 2, 1, 6, 5, 4

11. If 'PAPER' is written as QBQFS and 'SCHOOL' is written as TDIPPM, then 'BOUQUET' will be written as _____.

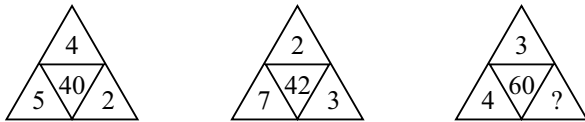
A. CPVRVFFV B. CPVRVFU
C. CPRVFFVU D. CPVRVGW

12. If the given clock rotates 270° clock-wise, then the hands will be in _____ direction.

A. North
B. East
C. West
D. South



13. Find the missing number, if the same rule is followed in the figures.

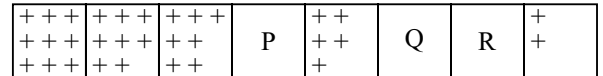


A. 2
B. 3
C. 7
D. 5

14. Arrange the following words in a logical sequence.

1. Evening 2. Morning
3. Night 4. Afternoon
A. 1, 2, 3, 4 B. 2, 4, 1, 3
C. 2, 3, 1, 4 D. 2, 4, 3, 1

15. Select the figures from the options which will come in place of P, Q and R to complete the given series.



A.

++ ++ ++

 ,

++ + +

 ,

+++ ++ +

B.

+++ +++ +++

 ,

+++ ++ ++

 ,

+ + +

C.

++ ++ ++

 ,

++ + +

 ,

+ + +

D.

++ ++ ++

 ,

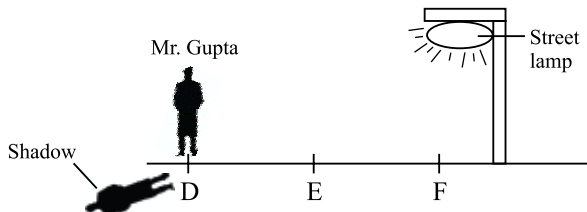
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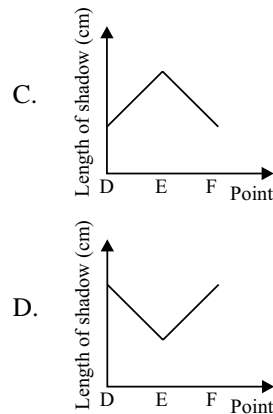
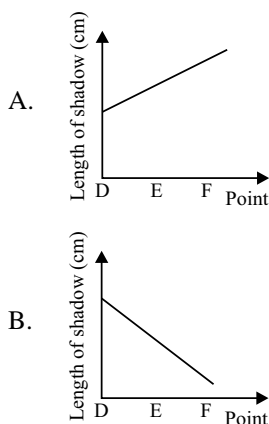
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SCIENCE

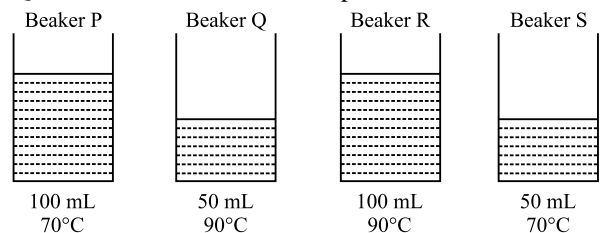
16. Mr. Gupta was walking along a street at night. He stood at point D and observed that his shadow was cast behind him. He then noticed that the length of his shadow changed as he walked towards the street lamp.



Which one of the following graphs shows the correct changes in the length of the shadow as Mr. Gupta walked from Point D to Point F?



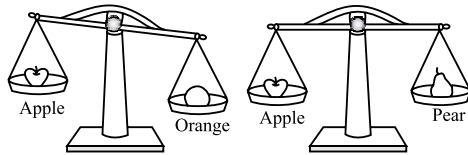
17. The diagram below shows four beakers of water, P, Q, R and S, at different temperature and volume.



Which one of the following statements is true?

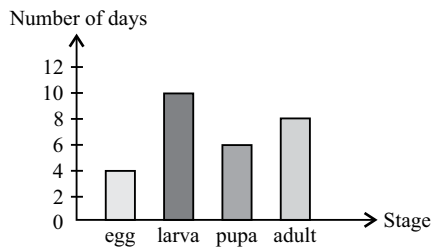
A. Beaker P has the most heat energy.
B. Beaker R has more heat energy than beaker Q.
C. Beaker S has more heat energy than beaker R.
D. Beaker P and beaker S have the same amount of heat energy.

18. Gopal compared the mass of three fruits using two weighing balance.



Based on the observations, which of the following statements is 'Not possible to tell'?

- A. The orange is lighter than the apple.
 B. The apple has the same mass as the pear.
 C. The orange is heavier than the pear.
 D. The apple has the same volume as the orange.
19. The graph below shows the number of days in each stage of the life cycle of an animal X.



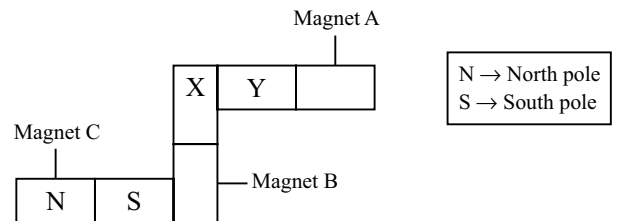
Which of the following statement(s) is/are true regarding its life cycle?

- A. It takes 20 days for the animal X to become an adult after it is hatched.
 B. Adult has a life span of 8 days.
 C. Pupa does not feed, hence it is of the shortest time span.
 D. All of the above
20. Puneet was at the railway station. He observed that there are gaps along the train track. The purpose of having the gaps on the train tracks is to allow _____.
- A. the expansion of the tracks on hot days
 B. the expansion of the tracks on cold days
 C. the contraction of the tracks on hot days
 D. the contraction of the tracks on cold days

21. Shivam sets up an experiment with four containers each having an equal number of seeds placed on damp cotton. At the end of the experiment, he observed that the seeds grew into seedlings in some set-ups but not in others. In which set-up P, Q, R and/or S will the seedlings germinate?

- (i) Set-up P : Kept under light at 4°C
 (ii) Set-up Q : Kept in dark at 30°C
 (iii) Set-up R : Kept under light at 30°C
 (iv) Set-up S : Kept in dark at 4°C
- A. (i) only B. (ii) and (iii)
 C. (iii) only D. (i) and (iv)

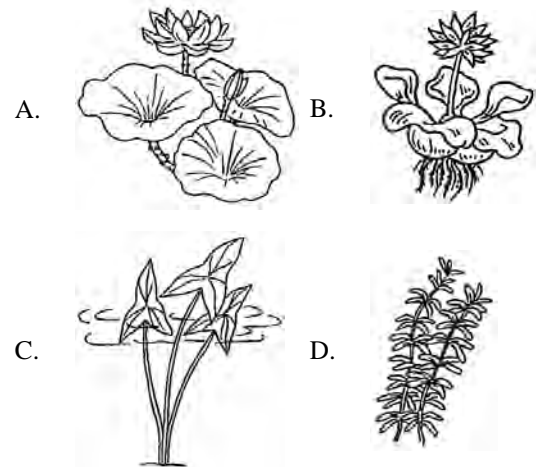
22. The diagram below shows magnet A, magnet B and magnet C.



Based on the diagram, identify the poles at X and Y.

- | | X | Y |
|----|------------|------------|
| A. | North pole | North pole |
| B. | North pole | South pole |
| C. | South pole | North pole |
| D. | South pole | South pole |

23. Which of these is an example of a free-floating water plant?



24. The best way to reduce air pollution in cities is to _____.

- A. reduce the height of the buildings so that the polluted air can escape
 B. build the cities out in the open countryside where there is no air pollution
 C. improve the public transport system so as to reduce the number of fuel-burning vehicles
 D. build better roads so that more cars and trucks can get people and goods around the city faster.

25. Which of the following events will result in a decrease in the population of butterflies?

1. Increase in the population of birds
 2. Increase in the supply of plant fertilisers
 3. Reduction in the number of green plants
 4. Increased use of insecticides by man on gardens and green belts
- A. 1, 2 and 3 B. 1, 2 and 4
 C. 1, 3 and 4 D. 2, 3 and 4

26. Refer the given picture.



Three of the animals shown above are likely to be found in the same habitat. Which of the following options show the correct animal- habitat relationship?

Animals	Habitat
A. P, Q, R	Rotting log
B. P, Q, S	Rubbish dump
C. P, R, S	Leaf litter
D. Q, R, S	Water stream

27. Which one of the following actions makes friction an advantage?

- Pushing a heavy box across the room
- Sailing across a river in rough weather
- Running towards a shelter in heavy rain
- Sewing a dress on an old rusty machine

28. Study the food chains given below carefully.

Grass → Goat → Man

Leaves → Giraffe → Lion

Papaya → Fruit fly → Lizard

Which of the following statements holds true for given food chains?

- Food chains start with plants.
 - All animals eat plants and other animals.
 - Animals that eat plants become food for the other animals.
 - Animals eat other animals which are smaller than them.
- | | |
|------------|------------|
| A. 1 and 2 | B. 2 and 4 |
| C. 1 and 3 | D. 3 and 4 |

29. Which unfavourable condition must have existed in the environment to cause such an incident as shown below?



- Fire
- Flood
- Drought
- Earthquake

30.



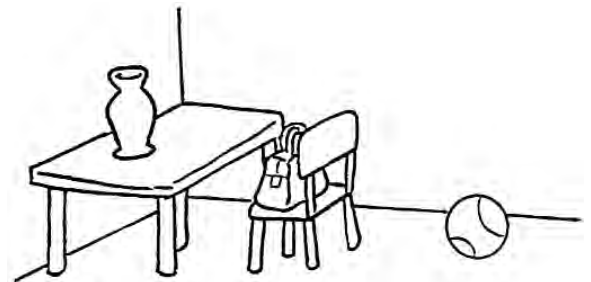
Which beak belongs to a bird that feeds on seed grains?

- P only
- Q and R
- S only
- R and S

31. Fruit M and fruit N are both dry. Fruit M is light and has a papery skin. Fruit N is long and has a slit along its side. How are the seeds of the fruits M and N dispersed?

- M: By wind; N: By animals
- M: By wind; N: By splitting
- M: By splitting; N: By wind
- M: By water; N: By animals

32. Which of the following statements about the three items shown in the given diagram is/are correct?

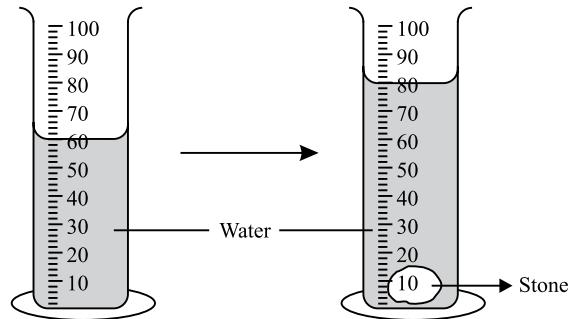


- The bag has the most potential energy.
 - The vase has the least potential energy.
 - The bag has more potential energy than the ball.
 - The ball has less potential energy than the vase.
- | | |
|------------|------------|
| A. 1 only | B. 3 only |
| C. 1 and 2 | D. 3 and 4 |

33. Which of the following statements are INCORRECT?

- A change in state will result in a change in volume.
 - A change in state will result in a change in substance.
 - A change in state will result in a change in weight.
 - A change in state will result in a change in mass.
- 1 and 4
 - 2 and 3
 - 2, 3 and 4
 - All of these

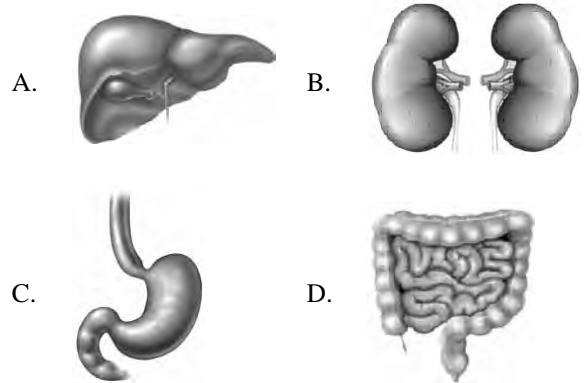
34. Refer to the diagram given below which shows an experiment to measure the volume of a stone.



What is the volume of the stone?

- A. 15 cm^3 B. 20 cm^3
C. 25 cm^3 D. 40 cm^3
-
35. Which one of the following shows the INCORRECT solution to pollution?
- | Problem | Solution |
|--------------------|----------------------------------------------------|
| A. Air pollution | Ensure motor vehicles are regularly checked |
| B. Water pollution | Discharge industrial waste into nearby water |
| C. Land pollution | Reuse paper products and bottles whenever possible |
| D. Water pollution | Discharge sewage after proper treatment |
-
36. Which of the following body parts in humans is the longest?
- A. Large intestine B. Small intestine
C. Femur bone D. Lungs
-
37. All stars appear to move from ____.
- A. East to West B. West to East
C. North to South D. South to North
-
38. _____ is the coldest planet of the solar system.
- A. Saturn
B. Neptune
C. Mercury
D. Jupiter
-
39. Avanish feels sick and goes to the doctor. The doctor prescribes him an antibiotic. Several months later, Avanish is sick again and goes to the doctor. This time, however, the doctor does not prescribe him an antibiotic. What could be the possible reason for this?
- A. This time he is suffering from a bacterial disease.
B. This time he is suffering from viral infection.
C. The earlier prescribed antibiotic was sufficient enough to fight against the second infection.
D. All of the above

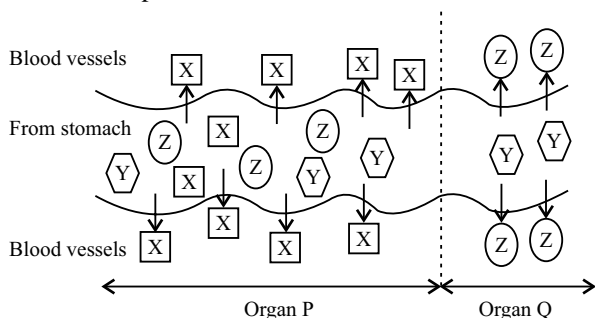
40. Which of the following body organs is responsible for cleansing our blood?



41. What do we call a rapidly rotating mass of water in a river or sea?
- A. Tide
B. Wave
C. Current
D. Whirlpool
-
42. What happens to the water table of a place having drought for a long period of time ?
- A. It gets higher because of continuous evaporation.
B. It gets lower because of continuous evaporation.
C. It remains the same because soil protects it from the heat.
D. It gets replenished continuously.
-
43. Some children are trying to get supplies into their tree house. The simple machine which would be most useful to them would be ____.
- A. Lever
B. Pulley
C. Wheel and axle
D. Screw
-
44. A renewable resource can be replenished easily while a non-renewable resource cannot be. Which of the following is a non-renewable resource of energy?
- A. Solar power
B. Wind power
C. Gas power
D. Water power
-
45. A comet ____.
- A. is a ball of gas right next to Pluto
B. will get destroyed if it travels too close to the Sun
C. takes about seven days to complete one rotation
D. is a small mass of rocks that orbits the Sun

ACHIEVERS SECTION

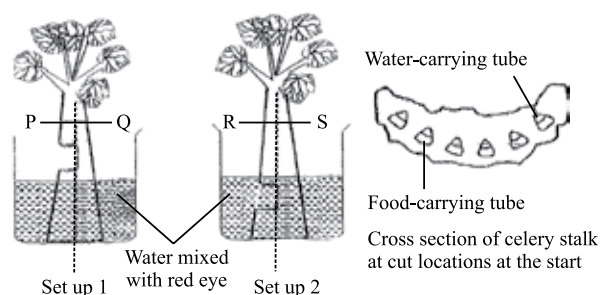
46. The diagram below represents part of the digestive system of a boy. X, Y and Z represent different substances that are being absorbed into the bloodstream at different parts as shown below.



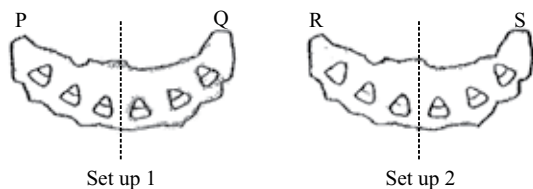
Based on the diagram above which of the following best represents organ Q and substances X, Y and Z?

	Organ Q	Substance X	Substance Y	Substance Z
A.	Large intestine	Water	Digested food	Undigested food
B.	Large intestine	Digested food	Undigested food	Water
C.	Anus	Water	Digested food	Undigested food
D.	Anus	Digested food	Undigested food	Water

47. Shreya placed celery stalks into two beakers containing water mixed with red dye, as shown in the given figure. After two days, the stalks were cut at two positions, PQ and RS to observe the parts stained by the red dye in the cross-section PQ and RS respectively.

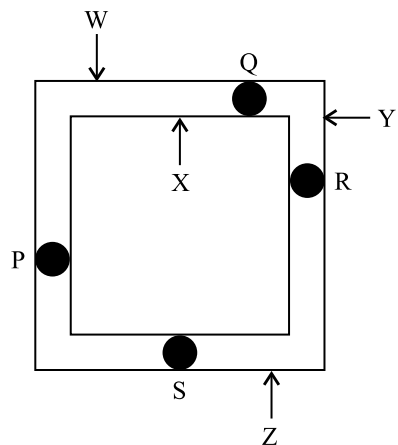


Which section would get stained with the red dye after two days?



- A. Only Q
B. Q, R and S
C. Only S
D. Both Q and S

48. The diagram below shows a square metal frame with four similar drops of wax attached to positions P, Q, R and S on it.



Tanmay heated the metal frame at one point on the metal frame and recorded the time taken for the drops of wax to melt in the table below.

Position of wax drops	Time taken for the wax drops to melt (seconds)
P	53
Q	17
R	40
S	95

Based on the results above, at which point (W, X, Y or Z) did Tanmay heat the metal frame?

- A. W
B. X
C. Y
D. Z

49. Which statement below is the correct explanation of how mountain-sized icebergs can float on the surface of the Arctic Ocean?

- A. The Arctic Ocean's water contains less salt than the iceberg's water.
B. The Arctic Ocean's cold temperature allows the iceberg to float.
C. The density of the Arctic Ocean is higher than the density of the iceberg.
D. The density of the iceberg is higher than the density of the Arctic Ocean.

50. Read the given passage:

Deep inside the Earth, there is hot molten rock called P which comes up and collects in a chamber. When the pressure in the chamber builds up, P finds a release through an opening or a crack in the crust of the Earth, called volcano. When P erupts through volcano, it is called Q . The eruption constitutes of gases, pieces of rocks and Q that comes out from R , an outlet or a well-like opening in the Earth's surface. Q and ash that are thrown out, collect and after repeated eruptions, form a mountain on cooling

down. The hollow top of this mountainous volcano is shaped like a bowl, called S .

Select the correct option regarding it.

- A. The release of Q is always very violent and it comes out with an explosion.
- B. The intense pressure inside the Earth pushes P towards the surface of the Earth. Generally P cools just below the Earth's surface and then hardens to form igneous rocks.
- C. S may contain several R s.
- D. Both B and C

SPACE FOR ROUGH WORK



Class 5

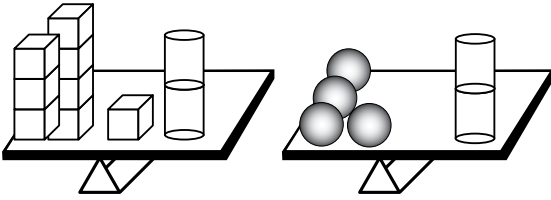


Set B

Year 2014

LOGICAL REASONING

1. How many cubes will balance 2 spheres?



- A. 3
B. 6
C. 4
D. 2

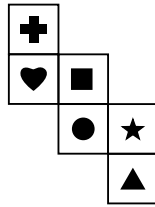
2. ___ and ___ will replace P & Q respectively in given figure matrix.

- A. ○, ○
B. □, ○
C. ○, □
D. ○, △

△	○	□	□
□	□	△	○
□	△	Q	□
P	□	□	△

3. Given below is the net of a cube. If it is folded, then _____ is opposite to the face marked ★.

- A. +
B. ♥
C. ■
D. ▲



4. _____ is exactly in the middle of 4th letter from the left end and 15th letter from the right end in English alphabetical series.

- A. I
B. J
C. K
D. H

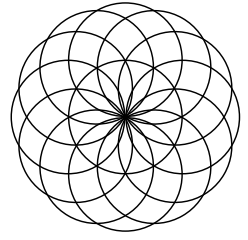
5. _____ will replace the (?) to continue the given pattern.



- A. 10
B. 16
C. 6
D. 14

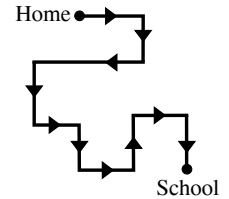
6. How many circles are used to draw the given figure?

- A. 16
B. 14
C. 12
D. 13



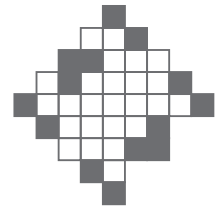
7. Garima goes to school from home along the indicated path. How many times she will turn right?

- A. 5
B. 6
C. 7
D. 8

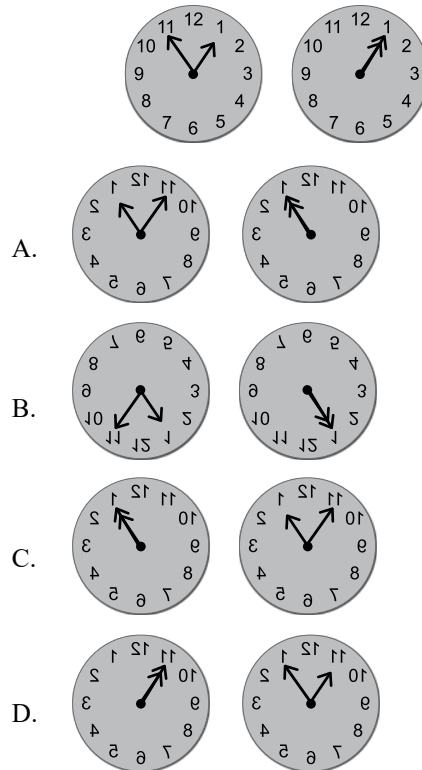


8. How many lines of symmetry does the given figure have?

- A. 0
B. 1
C. 2
D. 3



9. Select the correct mirror image, if the mirror is placed vertically to the left.



10. Latika forgets the code of three alphabets (A, I, T) to open her locker. How many different combinations of letters she could try to unlock her locker?

A. 8
B. 12
C. 6
D. 9

11. Amit celebrates his birthday on third Saturday of July 20XX. The date after his birthday will be _____.

A. 19th
B. 21st
C. 22nd
D. 20th



12. _____ will replace P, Q, R, S respectively in given below matrix, if the turns will be clockwise.

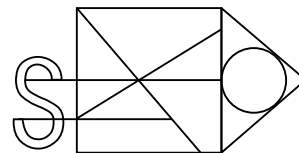
Shape	After 1/8 turn	After 1/4 turn
	P	R
	S	Q

A.
B.

C.
D.

13. Which of the following words can't be formed from given logo?

A. VOTE
B. STOP
C. NEWS
D. TUBE



14. What will be the direction of P and Q respectively, if Figure (X) is rotated $6\frac{1}{4}$ anticlockwise?

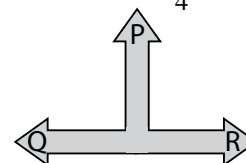


Figure (X)

A. South, North
B. East, West
C. West, South
D. West, East

15. What is the product of all the numbers in the number pad of a telephone?

A. 362880
B. 358420
C. 294870
D. None of these

SCIENCE

16. Manoj hits a tuning fork and then dips it into a beaker of water. The water gets agitated. Manoj hits the tuning fork again and places it on a metal plate that has grains of rice placed on it. The grains of rice 'dance' on the plate.

What has Manoj found about the nature of sound?

A. Sound is a form of energy.
B. Sound is produced by vibrations.
C. Sound is actually a kinetic energy
D. Sound is stored potential energy.

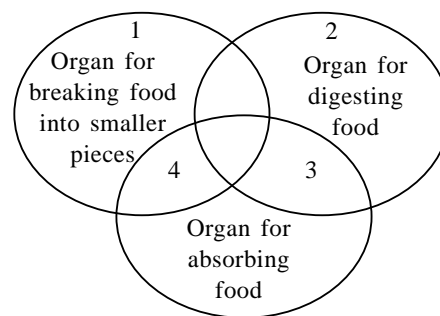


Tuning fork

17. A zebra has adaptations that enable it to escape from its predators. What are these adaptations?

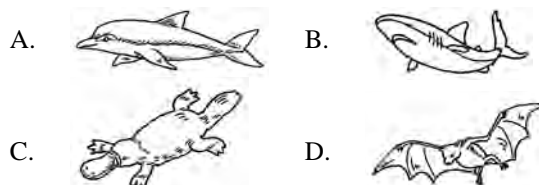
1. It can run fast.
2. It has strong limbs.
3. Its eyes are on the front of its head.
4. Its stripes enable it to camouflage itself.
A. 1, 2 and 3
B. 1, 3 and 4
C. 1, 2 and 4
D. 2, 3 and 4

18. Which of the labelled areas in the Venn diagram represents the small intestine?

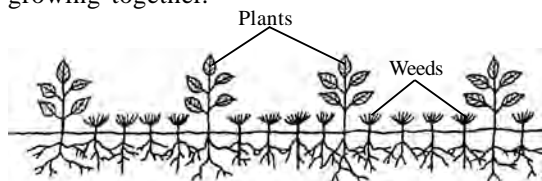


A. 1
B. 2
C. 3
D. 4

19. Which of the following is NOT a mammal?



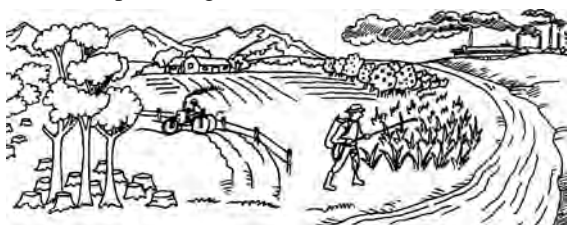
20. The diagram below shows some plants and weeds growing together.



Due to the presence of weeds, which of the following do plants have less of?

1. Water
 2. Nutrients
 3. Space
 4. Sunlight
- A. 1, 2 and 3 B. 1, 2 and 4
C. 3 and 4 D. 1, 2, 3 and 4

21. Which of the following conditions can be predicted from the picture given below?



1. Soil erosion
 2. Land pollution
 3. Water pollution
 4. Air pollution
- A. 1 and 2 B. 1, 2 and 3
C. 2, 3 and 4 D. 1, 2, 3 and 4

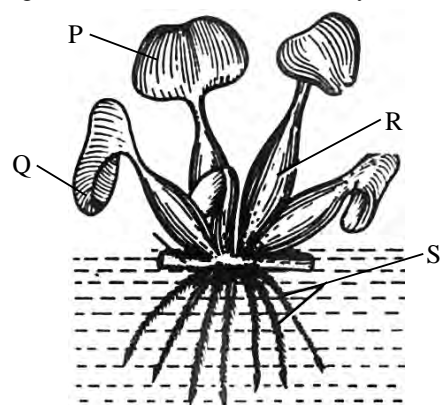
22. Rakesh used different magnets to pick up paperclips. The table below shows the results of his experiment.

Magnets	Number of paperclips picked up		
W	3	2	3
X	5	6	5
Y	1	1	0
Z	0	0	0

Each magnet was tested three times. Why was this necessary?

- A. To make sure the magnets were working properly.
 - B. To make sure the correct magnets were used.
 - C. To make sure they were really magnets.
 - D. To minimise the possibility of error.
23. Which of the following statements about the heart are correct?
1. The heart is made up of a special muscle called the heart muscle.
 2. The heart is protected by the ribcage and is found between the lungs.
 3. The heart contracts and relaxes 24 hours a day.
 4. The heart muscle is within our control.
- A. 1, 2 and 3 B. 1, 2 and 4
C. 2, 3 and 4 D. 1, 3 and 4

24. The diagram below shows a water hyacinth plant.



Which of the following parts of the water hyacinth is adapted for floating?

- A. P
 - B. Q
 - C. R
 - D. S
25. Four plants of the same type and similar size grown in identical pots filled with soil are treated differently once in a week.

Plant	Soil is added with
P	Detergent mixed with water
Q	Pieces of dead leaves
R	Rain water
S	Substances containing nitrogen compounds

Which one of the plants will not grow as healthier as the others?

- A. P
 - B. Q
 - C. R
 - D. S
26. Astrodog went on an expedition to the Moon some years ago. The dog died on the Moon and was left behind by the astronauts when they returned to Earth. The following year, another group of astronauts landed on the Moon and were surprised to find that Astrodog's body was not decomposed.
- This is because decomposers cannot live on the Moon since the _____.
- A. Moon has no atmosphere
 - B. Moon is not as warm as the Earth
 - C. Moon is much smaller than the Earth
 - D. Moon's gravitational pull is weaker than the Earth's gravitational pull

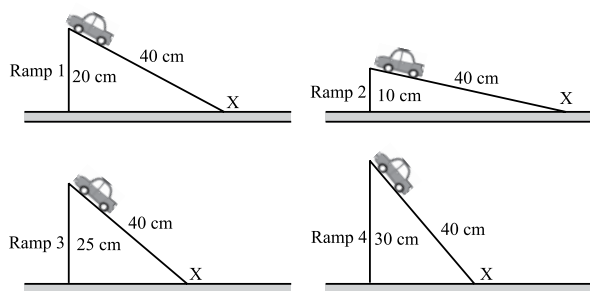
27. Ritu filled a syringe with water and tried to push the piston down, with her finger covering the opening, but found it difficult to do so.

What does this experiment show?

- A. Water can be compressed.
- B. Water cannot be compressed.
- C. Water occupies space.
- D. Water has mass and volume.



28. Study the four set-ups given below.



From the set-ups shown, which ramp do you think would make the toy car, when released, travel the farthest along the table top from point X?

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

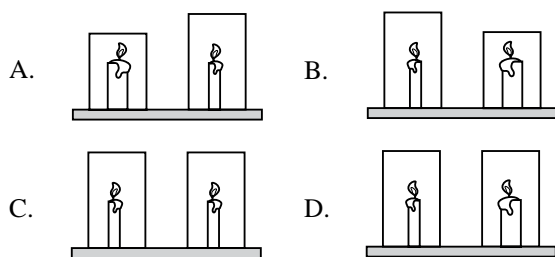
29. Refer to the given figure of four different feet of birds.



In what ways are these feet similar?

1. They are feathery.
 2. They are webbed.
 3. There are four toes on each foot.
 4. There is a claw at the end of each toe.
- A. 1 and 2 B. 2 and 4
C. 1 and 3 D. 3 and 4

30. Four pupils want to conduct a test to find out if the thickness of a candle affects the time taken for the flame to go out. Which of the following set-ups should the pupils use to perform a fair test?



31. Which of the following statements about humans is/are true?

1. Vigorous exercise increases the pulse rate.
 2. The windpipe is part of the digestive system.
 3. The blood vessels supply only oxygen-rich blood to all parts of the body.
 4. Digestion of food starts in the stomach.
- A. 1 only B. 1 and 3
C. 2 only D. 3 and 4

32. The water cycle is important to us because it does three of the four things listed below. Which one of the following it does NOT serve?

- A. It refills groundwater, lakes, ponds and natural springs.
B. It is the mechanism for transferring water from the sea to the land.
C. It ensures that living things are provided with water for their survival.
D. It carries in, from the sea, the mineral salts that plants need for growth.

33. In case of heat stroke, what should be done immediately?

- A. Cover the patient with any cloth, preferably with woollen cloth.
B. Give the patient a solution of salt, sugar and lime or preferably juice of an unripe mango.
C. Make the patient lie down in a sunny place.
D. Give hot tea or coffee to the patient.

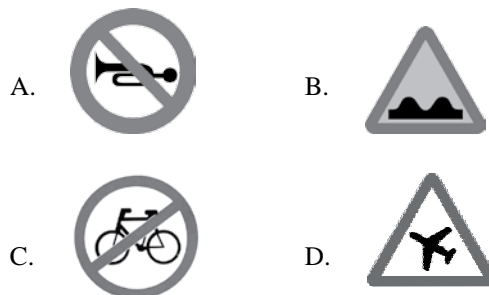
34. Which of the following statements is correct regarding the food?

- A. Roughage present in vegetables and fruits must be discarded.
B. Overcooking decreases the nutritive value of food.
C. Preserved food has more nutritive value than the fresh food.
D. Growing children need more fats to build strong muscles.

35. Natural processes change the surface of the Earth. Some changes occur rapidly and some occur slowly. Which of the following would cause the slowest change in the Earth's surface?

- A. Wind B. Landslide
C. Volcano D. Earthquake

36. Monika is speeding towards a hospital in her car. Suddenly she applies a brake on seeing a road sign at the road side. Which of these road signs she must have seen?



37. In order to make water contained in a small bottle evaporate more quickly, you should _____.

- A. Add ice to it
- B. Put it in the shade
- C. Add salt to it
- D. Pour it into a large bowl

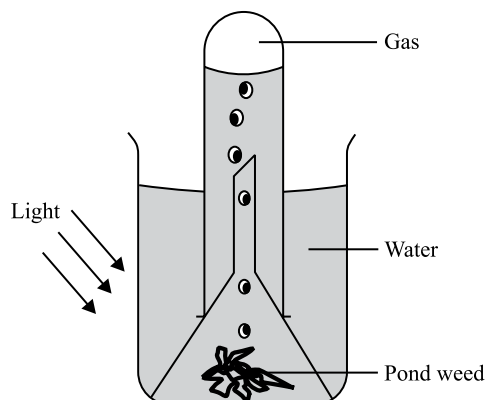
38. Which one of the following statements about tadpoles and frogs is INCORRECT?

- A. Both tadpoles and frogs can swim.
- B. Both tadpoles and frogs breathe through gills.
- C. Tadpoles have tails but frogs do not.
- D. Young tadpoles have no legs but frogs have four legs.

39. Doctor told Radha that she is suffering from diabetes which is a chronic disease. It means that _____.

- A. Her disease will last only for a short period of time
- B. Her disease can be transmitted from person to person
- C. Her disease can be controlled but generally not cured
- D. Her disease is caused by bacteria or other micro-organisms

40. Which gas is collected at the top of the inverted test tube when a water plant or a pond weed is kept in the water as shown in the figure?

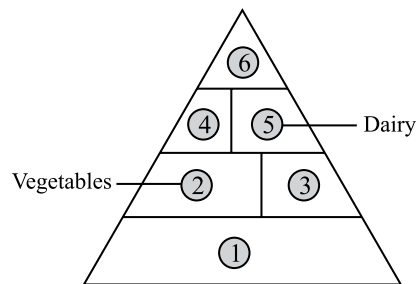


- A. Water vapour
- B. Carbon dioxide
- C. Oxygen
- D. All of these

41. Select the correct statement regarding the source of water on Earth.

- A. Ponds hold about 70% of all the water on Earth.
- B. No water exists beneath the surface of the Earth.
- C. The Earth has much more salt water than fresh water.
- D. Most of the Earth's water is stored as ice in giant glaciers.

42. Identify 1, 3, 4 and 6 in the given pyramid and select the correct option.



- | | 1 | 3 | 4 | 6 |
|----|----------|----------|----------|-----------------|
| A. | Fruits | Grains | Proteins | Sweets and fats |
| B. | Grains | Fruits | Proteins | Sweets and fats |
| C. | Proteins | Fruits | Grains | Sweets and fats |
| D. | Fruits | Proteins | Fats | Grains |

43. Meera was looking at the pictures of two different mountains in India, namely Aravali and Himalayas. She was surprised to see that the Aravali mountains were much smaller, more rounded and looked old and worn out as compared to the Himalayan mountains. What could be the best explanation for this?

- A. The effects of wind and water caused weathering of the Aravali mountains.
- B. Too many people and animals travelled across the Aravali mountains, causing them to wear away.
- C. The snowfall on the Aravali mountains was so heavy that it caused the mountains to shrink.
- D. There is lot of snowfall on the Himalayan mountains every year which makes them look taller and younger.

44. The term 'Reduce' is one of the three R's (reduce, reuse and recycle) to save the environment. An example of the opposite of reducing is over-packaging which is an anti-environment activity. Which of the following packaging activities is anti-environment?

- A. Filling a cereal box completely
- B. Putting an item in a cardboard box, then putting that box in another box
- C. Putting foam packing material around a fragile item
- D. Packing an item in the smallest possible box

45. Nowadays Pluto is not considered a planet because_____.

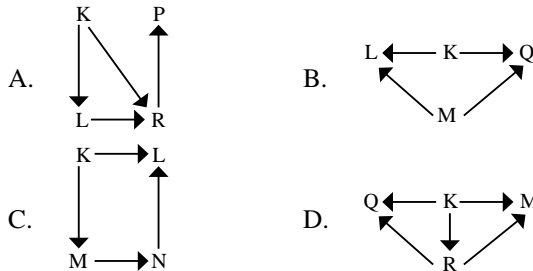
- A. It has stopped burning
- B. Bits of light is reflected from its surface
- C. Its orbit is irregular
- D. It is considered an ultra-large planet

ACHIEVERS SECTION

46. Study the table given below.

Plant	Herbivores	Carnivores	Omnivores
K	L and M	N and P	Q and R

Which of the following food webs correctly shows the food relationships of the organisms in the table above?



47. Gopal carried out an experiment to find out how things decomposed. He put each of the following food items in covered jars under different conditions. After a week, he recorded his results as shown in the table below.

Food item	Sunlight	Its condition	Observations
Dried cuttlefish	No	Dry	No smell, No change
Cooked tapioca	Yes	Damp	Smelly, Mushy
Dried mushroom	Yes	Dry	No smell, No change
Cauliflower	No	Damp	Smelly, Mouldy
Small prawn	Yes	Damp	Smelly, Mushy

Based on the given information, which conclusions can be drawn about decomposition?

- Dry things do not decompose.
 - Sunlight is needed for things to decompose.
 - Decomposers grow well in damp condition.
 - Decomposers grow better on plants than on animals.
- A. 1 and 2 B. 2 and 4
C. 1 and 3 D. 3 and 4

48. Read the following data about the given four bar magnets.

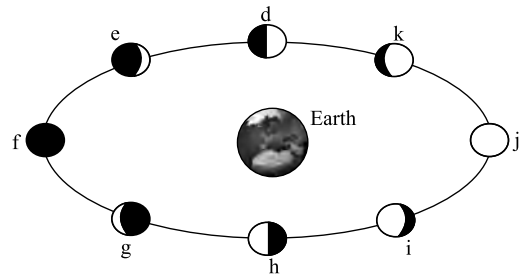
P	T	R	V
Q	U	S	W

- Q is a south pole.
- Poles U and V attract.
- Poles P and R repel.
- Poles R and V attract.

Identify the poles of four magnets and select the correct option.

North	South
A. P, R, T, V	Q, S, U, W
B. Q, S, T, V	P, R, U, W
C. P, R, U, W	Q, S, T, V
D. Q, S, V, W	P, R, T, U

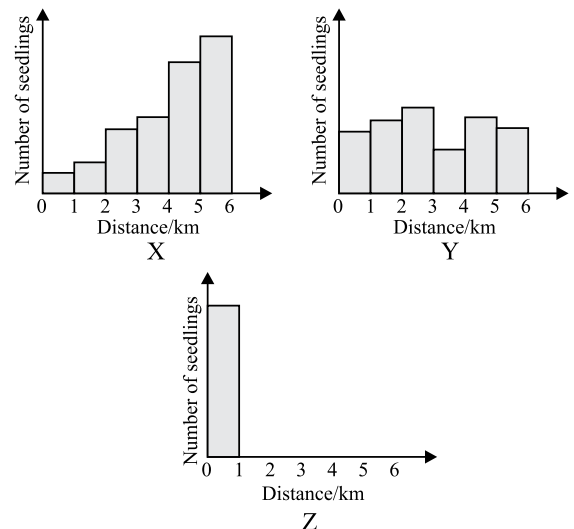
49. The given figure shows the phases of the Moon.



Select the phases of the Moon during which the highest tides in sea are seen on Earth?

- A. d and h B. f and j
C. e and g D. i and k

50. Three different types of plants X, Y and Z, were selected by scientists who want to document their methods of seed dispersal. The graphs below show the approximate number of seedlings found at various distances around the parent plant.



Which option most correctly lists the methods of seed dispersal of each plant?

	X	Y	Z
A.	Water	Explosive action	Animal
B.	Wind	Animal	Water
C.	Wind	Animal	Explosive action
D.	Explosive action	Water	Animal



Class 5



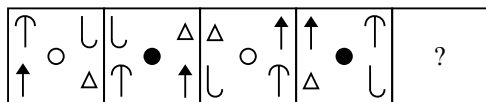
Set 1

Year 2015

LOGICAL REASONING

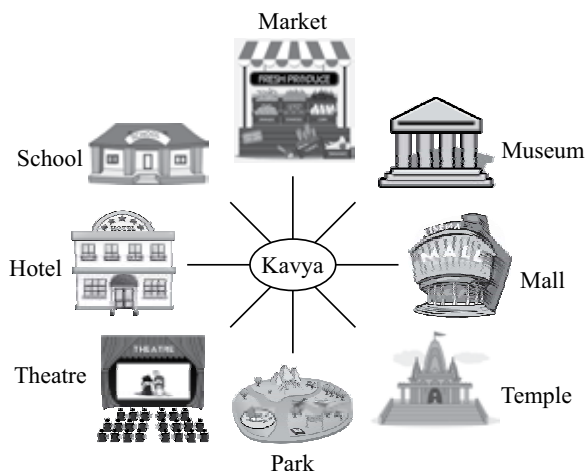
1. Which of the following options will continue the series established by the Problem Figures?

Problem Figures



- A. B. C. D.

2. Kavya is facing the Theatre. She turns 225° in anti-clockwise direction, where will she be facing now?



- A. School B. Market
C. Mall D. Museum

3. If in a certain code language, 'FRIEND' is written as 'IRFDNE', then how will 'MOTHER' be written in the same language?

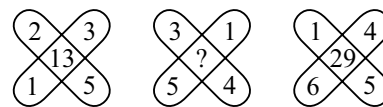
- A. TOMREH B. TOMEHR
C. REHTOM D. TOMRHE

4. Which of the following options will complete the pattern in Fig. (X)?



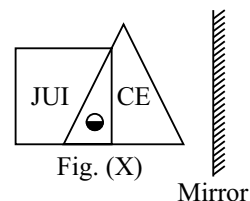
- A. B. C. D.

5. Find the missing number, if a certain rule is followed in the given figures.



- A. 11
B. 15
C. 21
D. 17

6. Select the correct mirror image of Fig. (X).

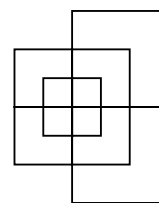


- A. B. C. D.

7. Which of the following Venn diagrams best represents the relationship amongst "Players, Men, Champions"?

- A. B. C. D.

8. Count the number of squares formed in the given figure.



- A. 12
B. 14
C. 10
D. None of these

9. Which of the following options is exactly embedded in Fig. (X)?

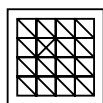
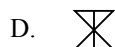
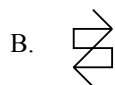
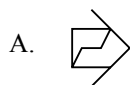


Fig. (X)

10. Which of the following words CANNOT be formed from the letters of the given word?

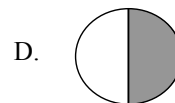
CREATIONS

- A. REACT
B. ACTION
C. TORN
D. HECTARE

SCIENCE

11. Which of the following statements is incorrect about the Sun?

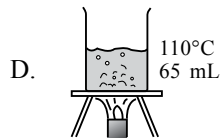
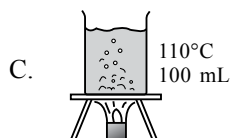
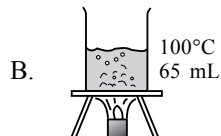
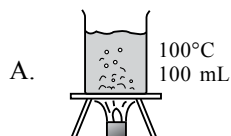
- A. The Sun is a huge mass of very hot gases.
B. The Sun is the only planet that we can see in the day.
C. The distance of the Sun from the Earth is about 150,000,000 km.
D. The Sun is important to the Earth because it provides light energy to green plants to make food.



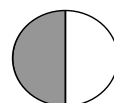
12. X cannot make its own food and reproduces with the help of tiny structures called spores. Which of the following represents X?

- A. Fern
B. Mushroom
C. Bryophyllum
D. Dahlia

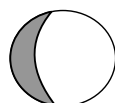
13. Amit continued to heat 100 mL of pure water for 15 minutes after it reached boiling point. Which of the following figures shows the result at the end of the experiment?



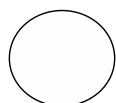
14. The given figure shows the phases of the Moon as seen from Earth on different nights.



December 21



December 26



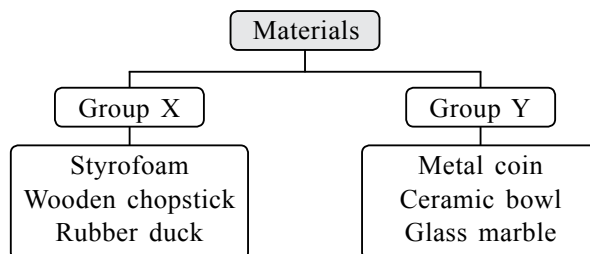
December 28



December 30

Which one of the following figures shows the correct phase of the Moon on December 30?

15. Study the given classification chart.



Which of the following are the most suitable headings for the groups X and Y?

- | Group X | Group Y |
|--------------------|----------------|
| A. Man-made | Natural |
| B. Flexible | Stiff |
| C. Opaque | Transparent |
| D. Floats on water | Sinks in water |

16. Ritika was asked to draw human digestive system. The diagram drawn by her is shown here. If we had a digestive system, as shown here, what would be the consequence?

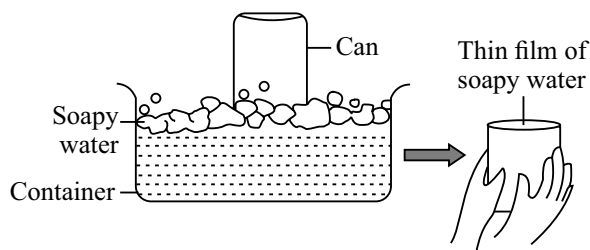


- A. The food will not be churned well and as a result, digestion will be slower.
B. Bile will not be produced.
C. Bacteria present in the food will not be killed.
D. Both A and C

17. Soil pollution can be reduced by increasing the use of _____.

- A. Biodegradable and recyclable materials
B. Use-and-throw articles
C. Electronic and plastic products
D. Forest products without reforestation





18. Mohan is very sensitive to green chillies. Whenever he eats them, he gets rashes on his body. Mohan has a disorder called ____.
- A. Measles B. Allergy
C. Anaemia D. Cholera
-
19. The organism 'P' migrates to a new place, reproduces and then dies. Which of these can be 'P'?
- A. Salmon B. Polar bear
C. Arctic tern D. Siberian crane
-
20. Aradhya dips a can into a container of soapy water as shown here. A thin film of soapy water was formed over its mouth.



Aradhya holds the can tightly in her hands for a while. What do you think will happen?

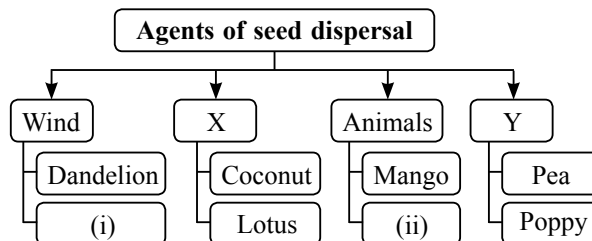
- A. Nothing will happen.
B. A bubble will form out of the mouth of the can.
C. The film will sink into the can.
D. The film will pop.
-
21. Which of the following statements show correct differences between an adult mosquito and its young one?
- (i) The adult mosquito lives on land but its young one lives in water.
(ii) The adult mosquito moults but its young one does not.
(iii) The adult female mosquito feeds on the blood of animals but its young one feeds on microscopic organisms.
(iv) The adult mosquito breathes in air through its gills but its young one breathes through a special tube.
- A. (i) and (ii) only B. (ii) and (iv) only
C. (i) and (iii) only D. (i), (iii) and (iv) only
-
22. Which of the following sets of gases contributes to global warming?
- A. Sulfur dioxide, Nitrogen, Carbon dioxide and Ozone
B. Oxygen, Carbon dioxide, Ozone and Methane
C. CFC, Oxygen, Nitrogen and Carbon dioxide
D. Methane, Carbon dioxide, Nitrous oxide and Water vapour

23. Rishi is a contractor who is clearing a forest patch to build a sports complex in its place. Which of the following would possibly be the consequence of this activity?
- (i) Some animals will become extinct.
(ii) Some possible sources of natural drugs to cure diseases will be lost.
(iii) The problem of global warming will reduce.
(iv) Water table will replenish.
- A. (i) and (ii) only
B. (i), (ii) and (iii) only
C. (ii) and (iv) only
D. (i), (ii), (iii) and (iv)
-
24. The material used to make which of the following items can also be used to make a box for transporting cooked food items in order to keep them hot?

- A.  Metal fork B.  Wooden spoon
C.  Paper clip D.  Frying pan
-

25. Which of the following statements is correct?
- A. The mass movement of animals from one place to another is called hibernation.
B. Most materials from living resources are biodegradable.
C. Bones store essential body minerals like calcium and iron.
D. Rice, maize and hemp are rabi crops.
-

26. Read the given classification chart carefully.



Select the option which correctly completes the given classification chart.

- A. X - Water, Y - Explosion, (i) - Maple
(ii) - Cocklebur
B. X - Explosion, Y - Water, (i) - Milkweed
(ii) - Hiptage
C. X - Water, Y - Explosion, (i) - *Xanthium*
(ii) - Cherry
D. X - Explosion, Y - Water, (i) - Apple,
(ii) - Cotton

27. Which of the following options correctly represents the conditions present on land and water when a sea breeze flows?

	On land	On water
A.	High pressure	Low pressure
B.	High temperature	Low temperature
C.	Low pressure	Low pressure
D.	Low temperature	High temperature

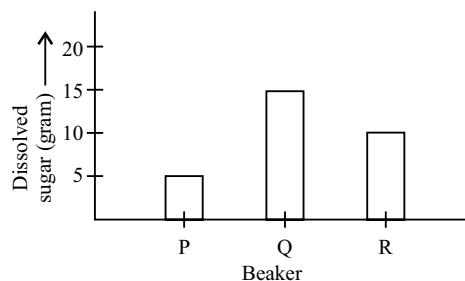
28. When night becomes very cold, X freezes to form Y. What can be X and Y here?

	X	Y
A.	Hail	Snow
B.	Dew	Frost
C.	Frost	Dew
D.	Snow	Hail

29. In a newly cleared area three plants X, Y and Z were planted at the boundary. Plant X spread over the entire area with time, while plants Y and Z were found limited in the area near the boundary. Select the correct option regarding it.

- Seeds of plant X are dispersed by explosion.
- Seeds of plant Y are dispersed by wind.
- Seeds of plant Z are dispersed by animals.
- None of these

30. The amount of sugar dissolved in three beakers P, Q and R is represented in the given graph.



Which of the following inferences can be made from this?

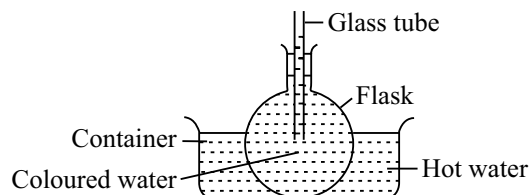
- If all the beakers have equal amount of water, then beaker Q is at the highest temperature.
- If all the beakers have equal temperature of water, then beaker P has the lowest amount of water.
- If all the beakers have equal amount of water, then the beaker P is at the lowest temperature.
- All of these

31. Select the incorrect statement among the following.

- The revolution period of a planet depends upon its distance from the Sun.
- The rotation period of planet depends upon its distance from the Sun.

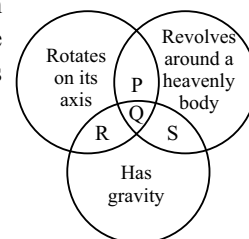
- The duration of a day on a planet depends upon its rotatory speed.
- The duration of a year on a planet depends upon its revolution period.

32. What will happen when a flask of coloured water is placed in a container of hot water for some time, as shown here?



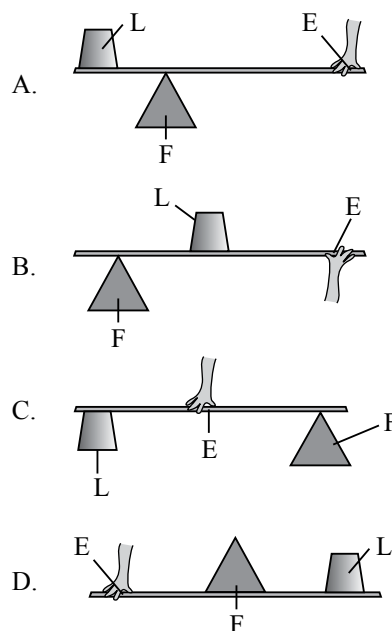
- The water in the container will overflow.
- The water level in the glass tube will fall.
- The water level in the glass tube will rise.
- The water in the container will become coloured.

33. Study the given Venn diagram and select the position where Moon can be placed in this diagram.



- P
- Q
- R
- S

34. Select the option that correctly represents the arrangement of Load (L), Fulcrum (F) and Effort (E) in a second class lever.

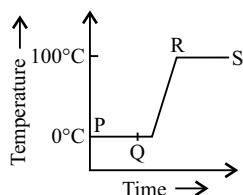


35. Match the column I (characteristics or phenomenon) with column II (containing scrambled letters) and select the correct option from the given codes.

Column I**Column II**

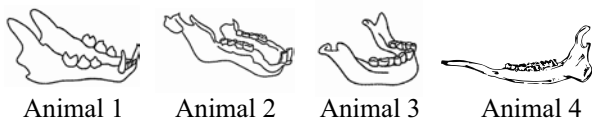
- (a) Animal that eats both plants and animals (i) GMOANIRTI
- (b) Animal that depends on other living animals for food (ii) OFULCMAEGA
- (c) Phenomenon in which animals merge with their surroundings to escape their predator (iii) AEARLBOR
- (d) Phenomenon in which animals of cold regions move to warmer regions to escape extreme cold winters (iv) EARTAPSI
- (e) Animal that spends most time on trees (v) NVMOIOER
- A. a - (iv), b - (iii), c - (v), d - (ii), e - (i)
- B. a - (i), b - (ii), c - (iii), d - (iv), e - (v)
- C. a - (ii), b - (i), c - (iv), d - (v), e - (iii)
- D. a - (v), b - (iv), c - (ii), d - (i), e - (iii)

36. The given graph shows temperature changes in a beaker of water. Select the incorrect option regarding it.



- A. At point P, the beaker was in refrigerator.
- B. At point Q, the beaker was put on fire to be heated.
- C. At point R, the water in the beaker changed its phase from solid to liquid.
- D. If heating is continued further after point S, gradually there will be no water left in the beaker.

37. The following diagrams show lower jaw of four animals 1, 2, 3 and 4.



Which two animals have a similar diet?

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

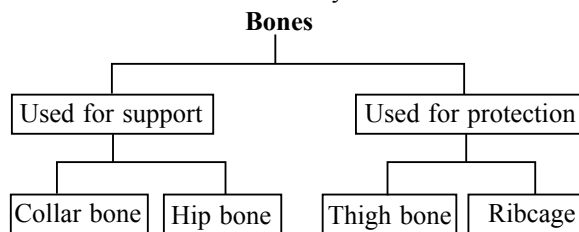
38. The given plant is different from the trees found near us like banyan, neem etc., in a basic feature. Select the correct option regarding it.



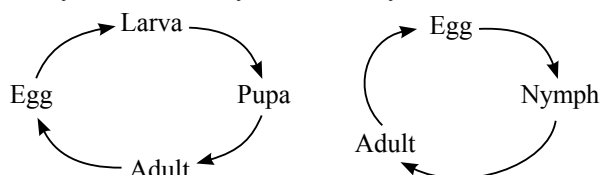
- A. This plant is found in water.
- B. This plant obtains its nutrition from other plants.

- C. This plant obtains its nutrition completely from insects.
- D. This plant has special leaves which snap shut when sense touch.

39. Study the given classification chart. Which of the bones is classified incorrectly?



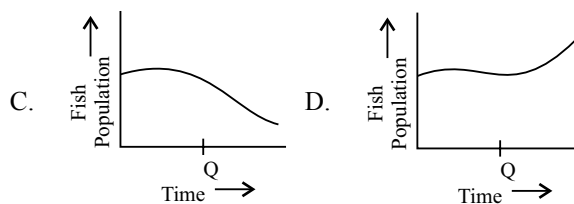
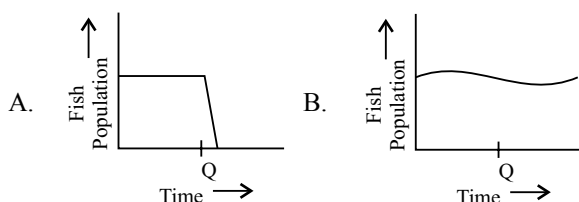
- A. Thigh bone B. Hip bone
- C. Collar bone D. Ribcage
40. Clothes should be cared properly for their durability and hygiene. Select the correct option regarding care of clothes.
- A. Moth balls should be placed in the cupboard but they should not touch the clothes.
- B. Silk clothes should be washed with mild detergents.
- C. Woollen clothes should be wrung very tightly before hanging for drying.
- D. Both A and B
41. The given table shows four parts of a bar magnet and the number of paper clips each part attracts.
- | Parts of a magnet | a | b | c | d |
|------------------------------------------|---|---|---|---|
| Number of paper clips each part attracts | 4 | 7 | 6 | 3 |
- By looking at the table, the two poles of the bar magnet are most likely to be at ____.
- A. a and b B. b and c
- C. a and d D. c and d
42. Ritu has a toy puppy that can bark, jump, wag tail and move. Its eyes shine when patted. It is operated by a battery. Which of the following energy conversions do not take place in this puppy?
- A. Chemical energy → Kinetic energy
- B. Chemical energy → Sound energy
- C. Chemical energy → Light energy
- D. Chemical energy → Magnetic energy
43. Study the two life cycles carefully.



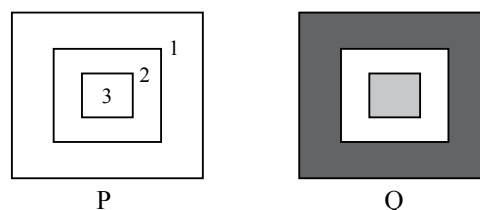
Which of the following statements is true about the life cycles given here?

- In both the life cycles, newly hatched young ones do not resemble the adults.
- In both the life cycles, all stages occur in water.
- In both the life cycles, the newly hatched young ones resemble the adults.
- In both the life cycles, the adults moult many times.

44. A freshwater river supports a large number of fish in its water. A new chemical factory is being established near this river. Select the graph that represents the most likely changes in the fish population in river in future. In graphs, Q represents the time point when factory is established.



45. Figure P shows an object which is made of three different materials. Figure Q shows its shadow on a screen. Study these figures and select the option that correctly identifies any two of these materials.



- 1 - Tissue paper, 2 - Cardboard
- 2 - Cardboard, 3 - Cellophane sheet
- 1 - Cardboard, 3 - Tracing paper
- 2 - Frosted glass, 3 - Cardboard

ACHIEVERS SECTION

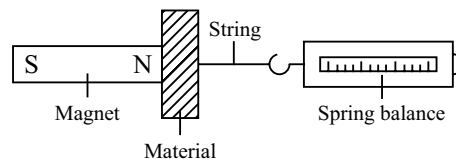
Direction : Refer to the given word grid and answer the questions 46 and 47.

46. Which of the following materials is not hidden in this word grid?

P	Q	S	M	D	T	V	R	L	J
R	A	S	S	I	L	M	U	P	K
I	P	Q	N	A	G	H	B	R	E
E	R	O	A	M	F	K	B	O	F
C	O	T	T	O	N	I	E	T	J
L	R	A	I	N	K	J	R	E	P
F	M	P	B	D	G	L	A	S	S

- The hardest material in the world.
 - Material sourced from plants that is used to fill pillows.
 - Material used to make transparent and delicate decoratives.
 - Clothing material that is obtained by killing young one of an animal.
47. A material having a six letter name starting with R is hidden in this word grid. Which of the following objects cannot be made using this material?
- Truck tyres
 - Bulb
 - Eraser
 - Hose pipes

48. Padma conducted an experiment as shown below by using different materials.



Padma pulled on the spring balance until the material was separated from the magnet. The readings on the spring balance were recorded as shown in the table below.

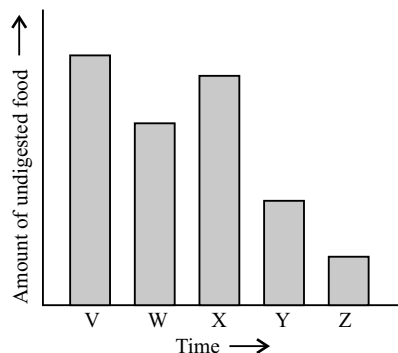
Material	Reading on the Spring Balance (g)
Steel	68
Soft iron	82
Nickel	38
Cobalt	48

What conclusions could Padma make from her experiment?

- Soft iron needs the largest force in order to be separated from a magnet.
 - Nickel is most easily magnetised while soft iron is least easily magnetised.
 - Nickel and cobalt are non-magnetic materials.
 - Steel makes the strongest permanent magnet.
- (i) only
 - (iii) and (iv) only
 - (i), (ii) and (iii) only
 - (iv) only

49. Jai drew a graph which represented the amount of undigested food in different parts of our alimentary canal, during the process of digestion of a meal. The variables V to Z represent the organs of alimentary canal from mouth to anus.

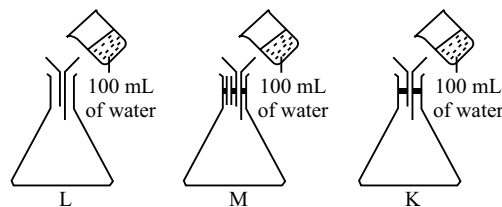
Select the correct option regarding this.



- A. The amount of undigested food should be zero at Z because digestion is completed before the food reaches anus.
- B. The amount of undigested food at X and W should be interchanged because there is no digestion in oesophagus.

- C. A decrease in the amount of undigested food should be first observed in Y only because intestine is the primary site of digestion.
- D. Both A and B

50. Rohit prepared three set-ups as shown here. He then poured 100 mL of water into each flask.



Which of the following assumptions holds true for the given experiment?

- A. The highest amount of water will collect after 2 minutes in beaker M.
- B. The least amount of water will collect after 2 minutes in beaker K.
- C. The least amount of water will collect after 2 minutes in beaker L.
- D. The highest amount of water will collect after 2 minutes in beaker K.

SPACE FOR ROUGH WORK



Class 5



Set 2

Year 2015

LOGICAL REASONING

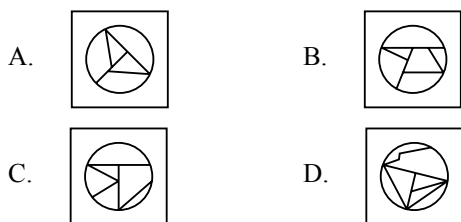
1. If 'fan' is called 'book', 'book' is called 'chair' and 'chair' is called 'window', then on which of the following will a person sit?

A. chair B. fan
C. book D. window

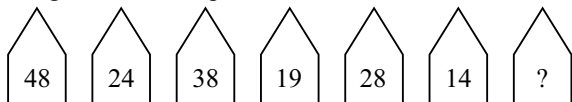
2. In which of the following options, Fig. (X) is exactly embedded as one of its part?



Fig. (X)



3. Find the number from the options which will continue the given number pattern.



A. 14 B. 13
C. 9 D. 18

4. Some letters are given which are numbered 1, 2, 3, 4 and 5. Find the combination of numbers from the options so that letters are arranged accordingly to form a meaningful word.

O Y N M E
1 2 3 4 5

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

5. Find the correct mirror image of the given combination of letters and numbers, if the mirror is placed vertically to the left.

R A J 5 8 9 D 6

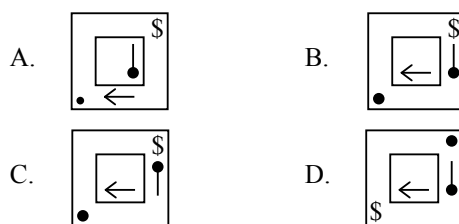
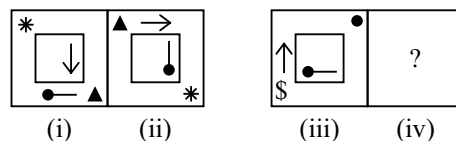
A. 6 D 9 8 5 J A R
B. 6 D 9 8 5 J A R
C. 9 D 6 8 5 J A R
D. 6 D 9 8 5 J A R

6. Which of the following is seventh to the left of the thirteenth element from the right end in the given arrangement?

2 P J @ 8 \$ L B 1 V # Q 6 d G W 9 K C D 3 © £
5 A R 7

A. L B. G
C. © D. B

7. There is a certain relationship between figures (i) and (ii). Establish the similar relationship between figures (iii) and (iv) by selecting a suitable figure from the options that will replace the (?) in fig. (iv).

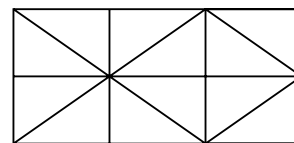


8. Find the missing character from the options, if a certain rule is followed row-wise or column-wise.

F	I	O
A	J	?
E	M	R

A. L B. M
C. K D. P

9. How many triangles are there in the given figure?



A. 23
B. 25
C. 28
D. None of these

10. Among a group of six girls, Shikha is shorter than Ayushi but taller than Ritu. Sonam is the shortest. Karuna is taller than Ritu but shorter than Payal. Payal is shorter than Shikha. Who is third, if the girls are arranged in ascending order of their heights?

A. Karuna
B. Payal
C. Ritu
D. Shikha

11. What is the main reason that some places on the Earth are warmer than others?
- The Sun is closer to some places than others.
 - The Sun stays above the horizon 24 hours a day at some places.
 - The rays of the Sun are direct at some places and slanting at others.
 - Some places experience warm seasons because of underground heat.

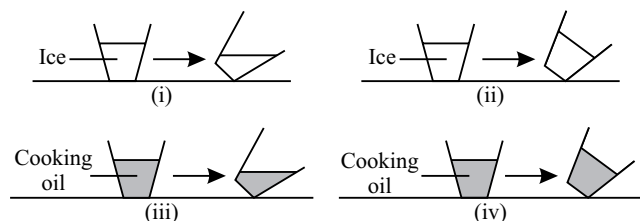
12. Select the plant which is grown by a different method than the other three.
- Potato
 - Rose
 - Sugarcane
 - Wheat

13. If organ *X* is removed from our body, we will lose a large amount of water. Select the option, which on unscrambling gives name of the organ *X*.
- NEISTTNIE
 - TSMOAH C
 - ACPENARS
 - IRVLE

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

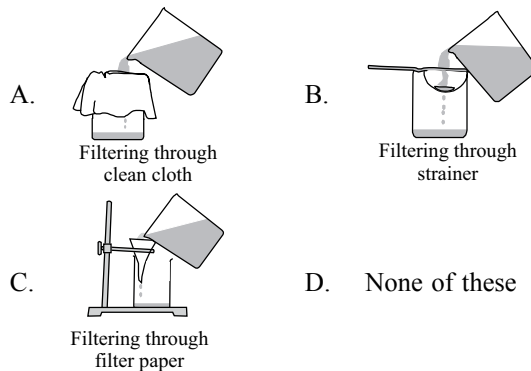
Column I	Column II
(a) Cotton	(i) Traditional dress
(b) Kimono	(ii) Natural fibre
(c) Wool	(iii) Man-made fibre
(d) Nylon	(iv) Makes us feel warm
A. (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)	
B. (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)	
C. (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)	
D. (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)	

15. Which of the following diagrams correctly show what happens when a glass of ice and a glass of cooking oil are tilted?



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

16. Which of the following is the best method of filtration of milky water ?



17. Sarthak's three friends are suffering from some diseases. Ritika has rickets, Samyak has anaemia and Mayank has measles.

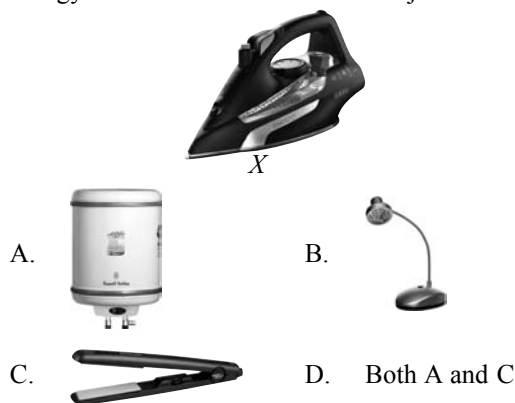
Which of them can communicate disease to him?

- Ritika and Mayank only
- Samyak and Mayank only
- Mayank only
- Ritika only

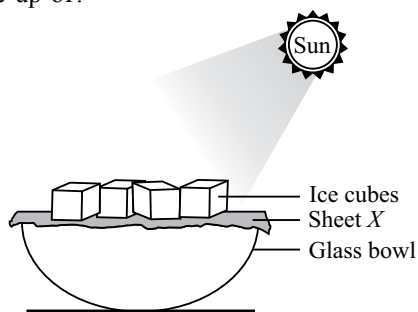
18. Select the correct option among the following.

- Siberian cranes come to India in summers.
- Arctic tern travels the longest distance among the migratory birds.
- Salmon swim long distances to reach sea to lay eggs.
- Butterflies have short lifespan thus they do not migrate.

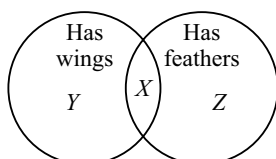
19. Select the object which shows the same type of major energy conversion that occurs in object *X*.



20. Advika sets up an experiment as shown in the picture. After 10 minutes, no water can be seen in the bowl. Which of the following materials sheet X could be made up of?



- A. Plastic
B. Rubber
C. Cotton
D. Either A or B
21. Refer to the given Venn diagram and select the correct option regarding X , Y and Z .



- A. Organism X can be bat and Z can be ostrich.
B. There is no such organism as Z .
C. Organism Y can be penguin and Z can be emu.
D. There is no such organism as X .
22. Ali studied two groups of things as shown in the table below.

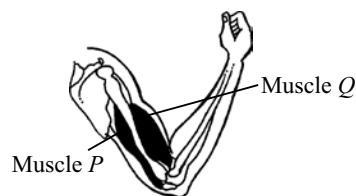
Biodegradable	Non-biodegradable
Fruits	Gold chains
Meat	Clay pots
Dairy products	Cans

He made the following inferences. Which one of the inferences is correct?

- A. All non-biodegradable things are soft.
B. Biodegradable things come only from animals.
C. Most things obtained from living resources are biodegradable.
D. All of these
23. Amit rushed towards a shelter when he saw a large sheet of ice and snow sliding down the slope. He was caught in a/an
- A. Tsunami
B. Avalanche
C. Earthquake
D. Landslide.

24. To decrease soil erosion _____.
- A. New plants should be grown in barren lands
B. Composting should be a regular practice
C. Terrace farming should be decreased, as it cuts down soil
D. New pastures should be made

25. Study the given diagram showing the bending of an arm.



What is the condition of the muscles P and Q during bending of the arm?

- A. Both muscles P and Q are relaxed.
B. Both muscles P and Q are contracted.
C. Muscle P is contracted while muscle Q is relaxed.
D. Muscle P is relaxed while muscle Q is contracted.
26. Raman went to the doctor, on feeling illness. The doctor advised him to increase the uptake of eggs and cod fish and to sit regularly in the sun. What could be the most appropriate reason for this?
- A. There is a high amount of calcium in his bones.
B. Raman has a deficiency disease called goitre.
C. Raman has increased chances of getting fractures in bones.
D. There is a low amount of iron in Raman's diet.
27. Given is a relationship between plants, based on the mode of seed dispersal.

Cotton : Madar : Drumstick

Which of the following plants show similar relationship?

- A. Coconut : Lotus : Pine
B. Pine : Cotton : Coconut
C. Drumstick : Pine : Pea
D. Pea : Lady's finger : Geranium
28. A plant produces spongy fruits, which are light in weight and are waterproof. Its seeds are most likely dispersed in a similar manner as the seeds of _____.
- A. Dandelion
B. Pea
C. Coconut
D. Tiger's nail
29. Which of the following cannot be observed in the case of an oil spill?
- A. Beach surfaces coated with black, sticky mass.
B. Dead bodies of fish and other animals drifting ashore.
C. Birds with oil-coated feathers, that become unable to maintain body temperature.
D. None of these

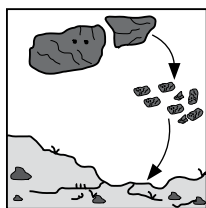
30. Refer to the given paragraph.
Agencies of wind and _____ break down _____ rocks into tiny fragments. The fragments are carried away by these agencies into rivers and seas where they sink to the bottom of the water bodies and form layers. These layers gradually form _____ rocks due to pressure.

Select the option that contains the correct sequence of words to fill in this paragraph.

- Water, Sedimentary, Igneous
- Temperature, Sedimentary, Igneous
- Water, Igneous, Sedimentary
- Temperature, Igneous, Sedimentary

31. Which of the following conditions can lead to the process shown here?

- Action of strong wind on rocks.
- Freezing of water filled in rock crevices.
- Temperature changes during day and night.
- All of these



32. The revolution period of three planets of our Solar System are given in the following table.

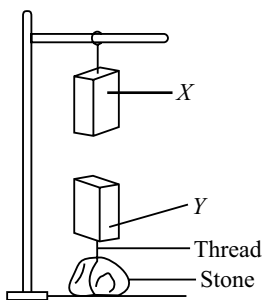
Planet	Revolution period
<i>X</i>	224 days
<i>Y</i>	88 days
<i>Z</i>	12 years

Which of the following conclusions can be made by using this data?

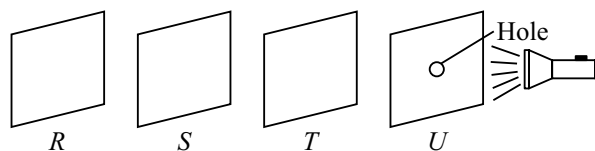
- Planet *Z* is located nearer to Sun than Earth.
- Planet *X* is located farther from Sun than Earth.
- Planet *X* will be colder than Earth.
- Planet *Y* will be hotter than Earth.

33. Ritu prepared a set up as shown here. Which of the following conclusions can be made from the given experiment?

- Object *Y* can be a magnet and object *X* can be made up of copper.
- Object *X* can be a magnet and object *Y* can be made up of copper.
- The force exerted by object *X* on object *Y* is stronger than gravitational force and is in its opposite direction.
- The force exerted by object *Y* on object *X* is stronger than gravitational force and is in its opposite direction.



34. Meetu has four sheets made of different materials. She arranges the sheets *R*, *S*, *T* and *U* in a straight line. When the torch is switched on, a bright circular patch of light is seen on sheet *S* only.



Which of the following conclusions can be made from this?

- Sheet *R* is made of an opaque material.
- Sheet *S* is made of a transparent material.
- Sheet *T* is made of a translucent material.
- Sheet *U* is made of an opaque material.

35. Which of the following is an incorrect match of the everyday object and the simple machine involved in its functioning?

- Elevator – Pulley
- Escalator – Wedge
- Pepper mill – Wheel and axle
- Ladder – Inclined plane

36. Different states in India have different traditional dresses, that can be easily recognised. Based on this, what can be determined about Aparna?

- She is from the state that has the Gateway of India.
- She is from the state that is famous for bhangra dance.
- She is from the state that has desert.
- She is from the state that has Hoogli river.

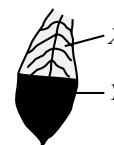


Aparna

37. Tanvi performed an iodine test on a leaf and the result is shown here.

Which of the following conclusions can be made from this?

- | <i>X</i> | <i>Y</i> |
|---------------------------|--------------------------|
| A. Had chlorophyll | Lacked chlorophyll |
| B. Received sunlight | Lacked sunlight |
| C. Lacked CO ₂ | Received CO ₂ |
| D. Received water | Lacked water |



38. Garima was drinking water when suddenly, she got choked. The water might have entered her _____ instead of entering _____.

- Oesophagus, Food pipe
- Food pipe, Windpipe
- Windpipe, Oesophagus
- Food pipe, Oesophagus

39. Animal *X* has the following characteristics :

- Gives birth to its young ones.
- Has outer body covering of hair.
- Has four legs.
- Lives in a grassland habitat.
- Eats only plants.

Which one of these animals could be animal *X*?

- A. Gorilla B. Jaguar
C. Grasshopper D. Zebra

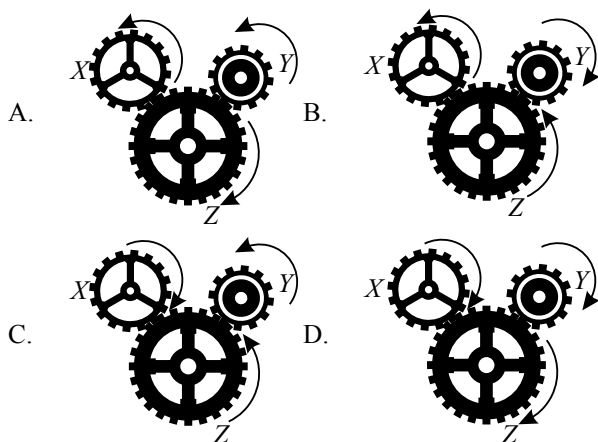
40. Study the given table :

Object	Gets stretched easily?	Bends easily?	Absorbent?
<i>P</i>	✓	✓	×
<i>Q</i>	✓	✓	×
<i>R</i>	×	✓	✓

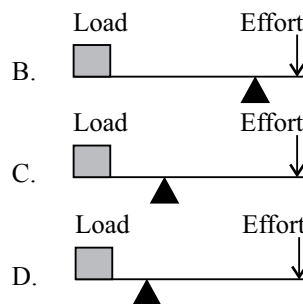
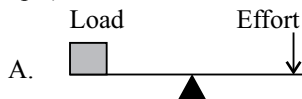
Select the option that correctly identifies the objects *P*, *Q* and *R*.

- | | <i>P</i> | <i>Q</i> | <i>R</i> |
|----|-----------------|-----------------|-----------------|
| A. | Bath sponge | Swimming trunks | Cycle tyre |
| B. | Swimming trunks | Cycle tyre | Bath sponge |
| C. | Swimming trunks | Bath sponge | Cycle tyre |
| D. | Cycle tyre | Bath sponge | Swimming trunks |

41. Three gears are placed in such a way that when one gear turns, the other two also turn. Select the option that correctly shows the movement of gears *X* and *Z* when gear *Y* is set in motion.



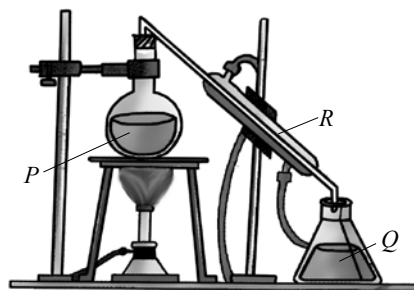
42. For which of the following lever systems, the least effort would be applied to lift the same load of 10 Kgs? (The length of the lever bar is 8 m in all the four set ups.)



43. Which of the following statements are incorrect?

- (i) There is no water or air on the Moon.
(ii) The temperature on the Moon during day time is 50°C.
(iii) The gravitational pull of the Moon is about one-third of that of the Earth.
(iv) Moon completes one rotation in every 28 days.
- A. (i) and (ii) only B. (ii) and (iii) only
C. (i) and (iv) only D. (i) and (iii) only

44. Which of the following statements is correct about the water purification process shown in the given diagram?



- A. In *R*, the liquid phase of water changes into gas phase.
B. *P* contains a mixture while *Q* contains a pure liquid.
C. *P* contains a pure liquid while *Q* contains a mixture.
D. In *R*, there is no change in the phase of water.

45. The given diagrams show the shapes of the Moon on different nights.

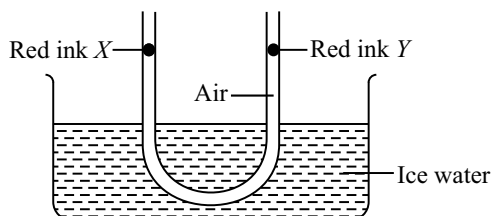


Which one of the following diagrams shows the correct shape of the Moon on 19th June?



ACHIEVERS SECTION

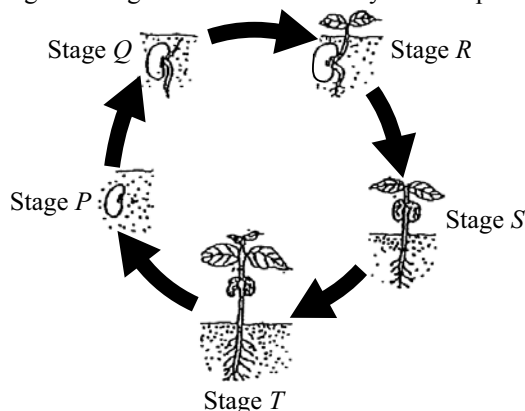
46. A U-tube is immersed in ice water as shown in the figure. X and Y are the red ink droplets present inside the tube.



What will you observe after some time?

- A. X will move downwards and Y will move upwards.
- B. X will move upwards and Y will move downwards.
- C. X and Y will move upwards.
- D. X and Y will move downwards.

47. The given diagram shows the life cycle of a plant.

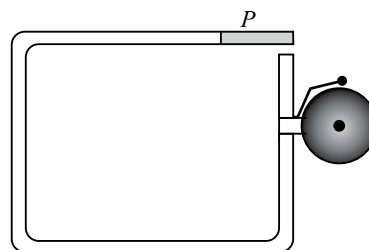


Which of the following statements are true regarding it?

- (i) Sunlight is not needed at stage Q .
 - (ii) Photosynthesis takes place only at stages R and S .
 - (iii) Stage P is not affected by what happens at stage T .
 - (iv) The seed at stage P needs air, water and warmth to reach stage Q .
- A. (i) and (iv) only
 - B. (ii) and (iii) only
 - C. (i), (ii) and (iii) only
 - D. (i), (ii), (iii) and (iv)

48. Three metals X , Y and Z show different expansion properties when heated. The metal X expands more than Y and metal Y expands more than Z .

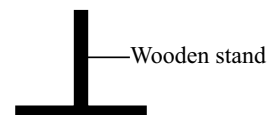
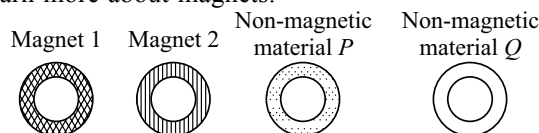
Siddhi has made a circuit for a fire alarm in which she wants to use a bimetallic strip to cause completion of the circuit (shown in figure) so that the alarm bell can ring.



Which of the following bimetallic strips should she use at place P ?

- | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|
| <p>A. <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="background-color: black; color: white;">Metal Z</td></tr><tr><td style="background-color: black; color: white;">Metal X</td></tr></table></p> <p>C. <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="background-color: black; color: white;">Metal Y</td></tr><tr><td style="background-color: black; color: white;">Metal X</td></tr></table></p> | Metal Z | Metal X | Metal Y | Metal X | <p>B. <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="background-color: black; color: white;">Metal X</td></tr><tr><td style="background-color: black; color: white;">Metal Z</td></tr></table></p> <p>D. <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="background-color: black; color: white;">Metal Z</td></tr><tr><td style="background-color: black; color: white;">Metal Y</td></tr></table></p> | Metal X | Metal Z | Metal Z | Metal Y |
| Metal Z | | | | | | | | | |
| Metal X | | | | | | | | | |
| Metal Y | | | | | | | | | |
| Metal X | | | | | | | | | |
| Metal X | | | | | | | | | |
| Metal Z | | | | | | | | | |
| Metal Z | | | | | | | | | |
| Metal Y | | | | | | | | | |

49. Megha used the five items shown in the picture to learn more about magnets.

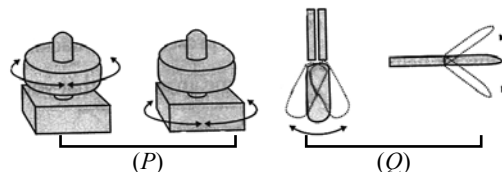


Which one of the following is not a possible observation for Megha when all 4 rings are placed one on top of the other through the wooden stand?

- | | |
|-----------------------|-----------------------|
| <p>A. </p> <p>C. </p> | <p>B. </p> <p>D. </p> |
|-----------------------|-----------------------|

50. The figures P and Q represent the movement of two types of joints in our body.

Select the incorrect statement about the joints represented.



- A. Joint P is found between our backbone and skull
- B. Joint Q is found between the bones of our wrist and ankles.
- C. Joint P 's movement can be compared to the movement of a joystick on computer.
- D. All of these



Class 5

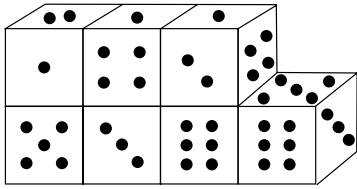


Set A

Year 2016

LOGICAL REASONING

1. The given picture shows 7 dice. Find the total number of dots that are seen in this picture.



- A. 21 B. 43
C. 104 D. 147

2. In a certain code language BOARD is written as 51324 and SIDE is written as 9647. How will BASE be written in that code language?

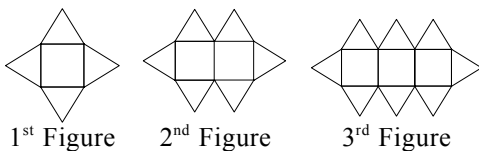
- A. 5397 B. 5937
C. 5697 D. 5297

3. Mohit celebrates Sidak's birthday on the third day after second Saturday of March 20XX. The date on Sidak's birthday is _____.

March 20XX						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

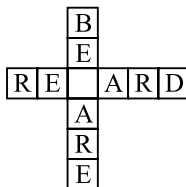
- A. 15th March B. 16th March
C. 9th March D. 14th March

4. How many triangles will be needed to form the 10th Figure in the given series?



- A. 10 B. 14
C. 22 D. 24

5. Choose the letter which will complete both the given words.



- A. Z
B. W
C. R
D. E

6. Which of the following figures will complete the pattern in Fig. (X)?

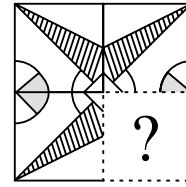
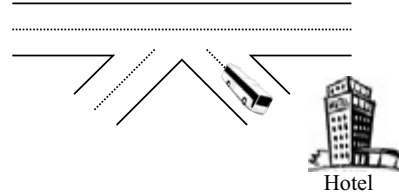


Fig. (X)



7. The bus is moving towards the hotel.



In which direction is the bus moving?

- A. South B. South-East
C. South-West D. East

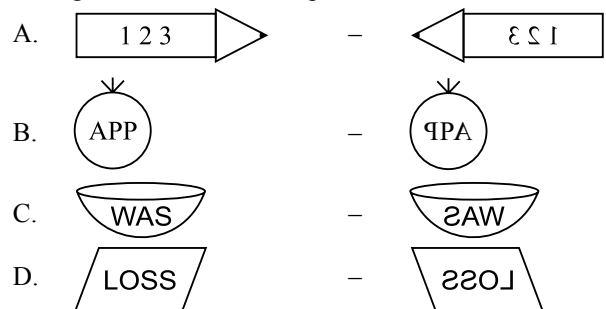
8. Find the missing number, if a certain rule is followed row-wise or column-wise.

A. 200	4	12	3
B. 29	20	?	9
C. 120	5	15	3
D. 180			

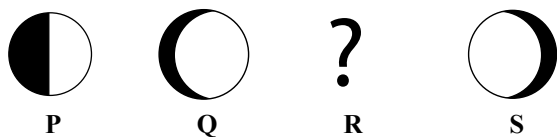
9. Trishika and Samrath like Mercedes. Mini and Priya like Ferrari. Samrath, Trishika and Mini like Duster. Priya and Samrath like Audi. Who like exactly three cars?

- A. Trishika B. Mini
C. Samrath D. Priya

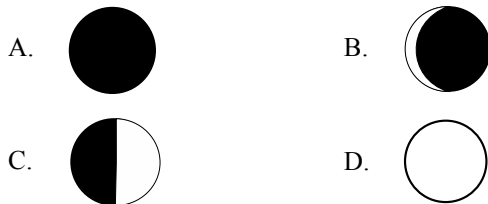
10. Select the INCORRECT match of mirror images of the figures shown in the options.



11. Study the given figure of a lunar cycle.



Which of the following shows the correct shape of the moon at R?



12. Which form of energy would move the given cart ?



- A. Mechanical energy B. Solar energy
C. Electrical energy D. Heat energy

13. Sania had to prepare a list of voluntary actions of body. By mistake, she wrote some involuntary actions also in the list. Pick out the involuntary actions from the list prepared by Sania, shown below.

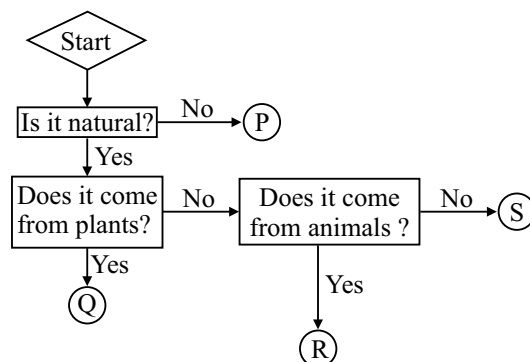
- (i) Chewing food
(ii) Sitting upright on a table
(iii) Digestion of food
(iv) Beating of heart
(v) Singing a song
(vi) Dancing
(vii) Breathing

- A. (i), (iii) and (v) only
B. (iii), (iv) and (vii) only
C. (ii), (iii) and (vi) only
D. (v) and (vii) only

14. Fossil fuels form over a long period of time when heat and pressure are applied to _____.

- A. Nitrogen mixed in the water
B. Organisms buried in the ground
C. Carbon filtered through limestone
D. All of these

15. Study the given flow chart carefully.



Cotton and metal are represented by the letters _____ and _____ respectively.

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

16. Read the given paragraph with few blanks and select the option that correctly fills these blanks.

Plants reproduce vegetatively by different means. Plants like _____ reproduce with the help of leaves, _____ and _____ reproduce by stem and _____ reproduces by roots. Some plants like mushrooms reproduce by _____.

- A. *Bryophyllum*, potato, turnip, ginger, spores
B. *Begonia*, onion, rose, sweet potato, seeds
C. *Bryophyllum*, rose, potato, turnip, spores
D. *Begonia*, potato, onion, sugarcane, seeds

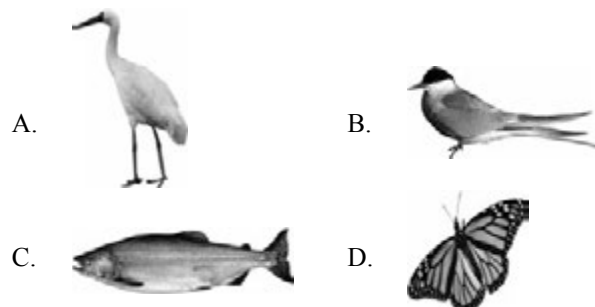
17. Ritu wrote down the steps of agricultural process as shown here.

Ploughing → Manuring → Irrigation → Sowing →
Pesticide spray → Harvesting

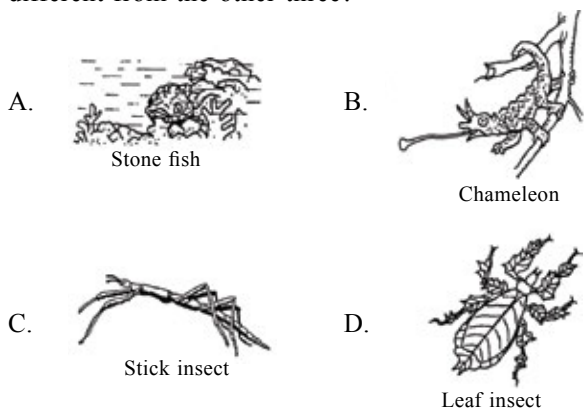
Refer to these steps and select the correct option regarding them.

- A. Irrigation can never be done before sowing.
B. Pesticide spray is done only after harvesting.
C. Sowing should be followed by ploughing.
D. Manuring can also be done after sowing.

18. Which of the following migrating animals dies after reaching the place of its birth?



19. Which among the following animals shows adaptation different from the other three?



20. Three friends Mayank, Siddharth and Satish share a room. For last few months, Mayank and Siddharth are suffering from different diseases. Mayank has anaemia while Siddharth has diabetes. Now, from few days Satish is also feeling feverish. What could be the reason for this?

- A. Satish is ill as he has contracted the disease from Mayank.
- B. Satish is ill as he has contracted the disease from Siddharth.
- C. Satish is ill due to some other cause.
- D. Either A or B

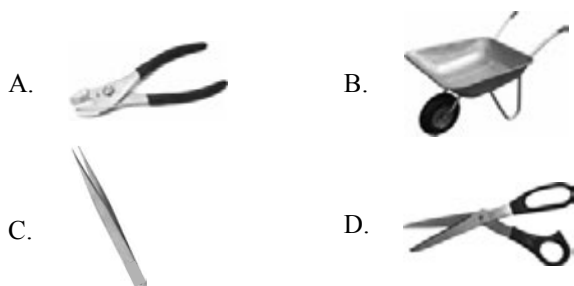
21. A break in continuity of a bone is called fracture. Select the incorrect option regarding it.

- A. As a first aid, one must ensure that the part fractured should not move.
- B. Simple fractures can heal naturally if not disturbed.
- C. A fractured bone cannot be repaired without medicines.
- D. Fractures occur due to high force, impact or trauma.

22. A lowland between two hills is called _____.

- A. Valley
- B. Plateau
- C. Delta
- D. Estuary

23. _____ is an example of second class lever.



24. A burning candle was put in a glass jar containing a gas X and opening of glass jar was sealed with lid. The candle flame put off. The gas X could be _____.

- A. Nitrogen
- B. Oxygen
- C. Carbon dioxide
- D. Both A and C

25. A list of various actions is given below.

- (i) Terrace farming
- (ii) Deforestation
- (iii) Making dams
- (iv) Setting up new residential areas
- (v) Volcanic eruption
- (vi) Coal mining

Which of these actions do not lead to global warming?

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

26. The number of pins attracted by four magnets P, Q, R and S of different shapes but equal weight is shown in the table. Which of these magnets can most probably be horse shoe shaped?

Magnet	No. of pins attracted
P	10
Q	8
R	2
S	30

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

27. A comet is different from a planet because _____.

- A. It has light of its own
- B. Its orbit is more elliptical
- C. It does not orbit around a host star
- D. It is oval in shape

28. Ruhi filled a syringe with matter X and sealed its opening. When she tried to push the plunger, she can push it down without much effort.

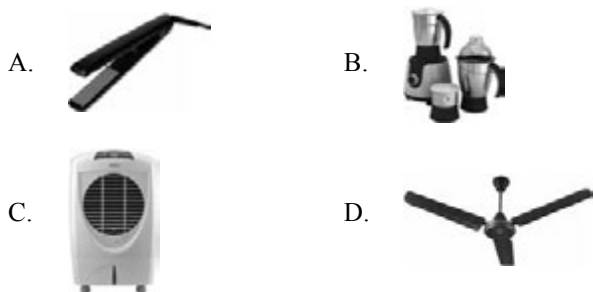
X can be _____.

- A. Water
- B. Oil
- C. Clay
- D. Gas

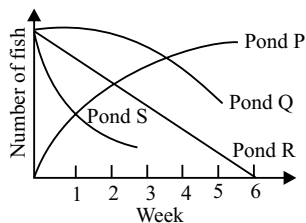
29. P changes into Q state without involving an intermediate R stage. This process is called S. If P is naphthalene ball, then what can be Q, R and S respectively?

- A. Liquid, solid, evaporation
- B. Gaseous, liquid, melting
- C. Solid, liquid, condensation
- D. Gaseous, liquid, sublimation

30. Select the object that works on the same type of energy conversion as an electric iron?



31. Study the given graph carefully. Which pond contains water that is most likely not polluted?

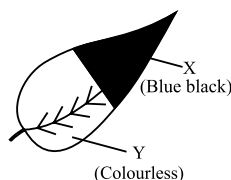


- A. Pond P B. Pond Q
C. Pond R D. Pond S

32. In our everyday life, we use pulley as in _____.

- A. Egg beater B. Elevator
C. Door knob D. Door hinges

33. The given figure shows a leaf on which iodine test has been performed. It indicates that the part Y possibly did not have



- A. Chlorophyll
B. Carbon dioxide
C. Sunlight
D. Any or all of these

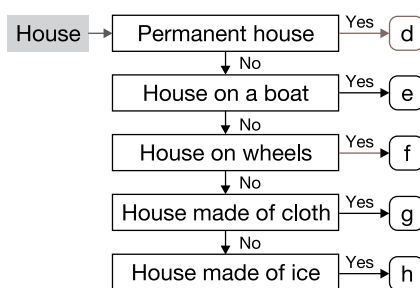
34. Which of the following food chains can exist in nature?

- A. Grass → Grasshopper → Frog → Snake → Beetle
B. Seeds → Eagle → Sparrow → Owl
C. Plant → Frog → Snake → Peacock → Caterpillar
D. Grains → Sparrow → Eagle

35. Starting from the first letter strike out every alternate letter and select the option that gives the method of food preservation in which food item is mixed with excess of oil and salt.

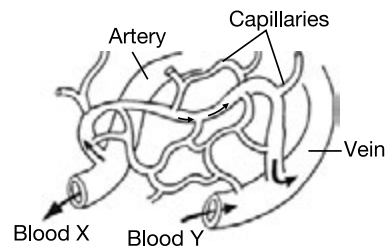
- A. AFSRQEQEQZTILNMG
B. JOPITLUIVNSGO
C. RPOIZCNKMLQIRNSGV
D. TDORAYBIENFGJ

36. Study the given flow chart. Which out of d, e, f, g or h best represents caravan and igloo respectively?



	Caravan	Igloo
A.	e	f
B.	f	h
C.	f	e
D.	g	h

37. Refer to the given figure of different blood vessels. The arrows show the direction of the flow of blood. Which one of the following correctly describes blood X and blood Y?



Blood X

Blood Y

- | | |
|-----------------------------------------------|--------------------------------------------|
| A. Rich in oxygen and nutrients | Rich in carbon dioxide and waste materials |
| B. Rich in carbon dioxide and waste materials | Rich in carbon dioxide and waste materials |
| C. Rich in oxygen and nutrients | Rich in oxygen and nutrients |
| D. Rich in carbon dioxide and waste materials | Rich in oxygen and nutrients |

38. Three pupils were discussing an environmental issue as given below. The statement given by pupil, P₃ is missing.

- | | |
|----------------|----------------------------------------------------------------------|
| P ₁ | : Excessive smoke increases the amount of carbon dioxide in the air. |
| P ₂ | : This carbon dioxide does not let heat escape from the earth. |
| P ₃ | : _____ |

Which of these statements could be the statement of pupil, P₃?

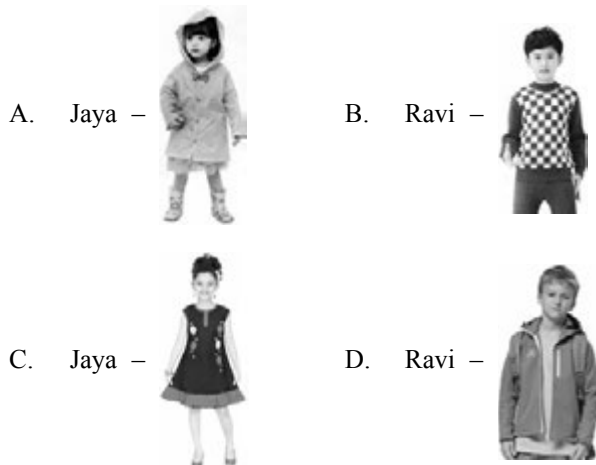
- A. This causes an increase in earth's temperature.
B. This causes global warming.
C. This causes acid rain.
D. Either A or B

39. Refer to the given conversation between two friends.

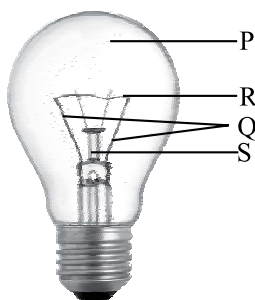
Ravi : Hi Jaya! Hope you are well! The sun is shining bright here and I am sweating very badly. How is the weather at your place?

Jaya : I am surviving only with the help of ice-creams and cold drinks.

What can be most likely guessed about the clothes of these two friends?



40. Refer to the given figure.



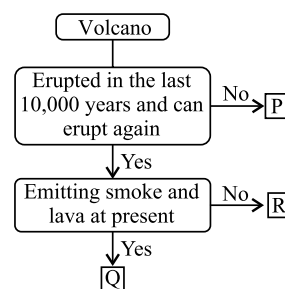
Select the option that correctly identifies P, Q, R and S.

	P	Q	R	S
A.	Inert gas	Support wires	Tungsten filament	Glass mount
B.	Inert gas	Tungsten filament	Support wires	Glass cover
C.	Glass mount	Support wires	Screw thread	Glass cover
D.	Glass cover	Screw thread	Support wires	Glass mount

41. Select the incorrect match among the following.

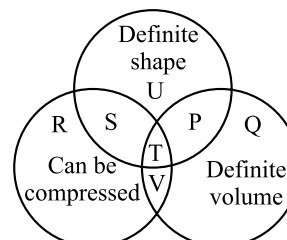
- (i) Chalk - Limestone
 (ii) The Red Fort - Sandstone
 (iii) Silver - Metallic mineral
 (iv) Petroleum - Non-metallic mineral
 (v) Granite - Metamorphic rock
- A. (i) and (iv) only B. (v) only
 C. (iii), (iv) and (v) only D. (ii) only

42. Refer to the given flow chart and select the option that identifies any one of P, Q and R.



- A. P - Erupting volcano
 B. R - Extinct volcano
 C. Q - Dormant volcano
 D. None of these

43. Study the given Venn diagram.



Which letters in the Venn diagram represent solid, liquid and gas?

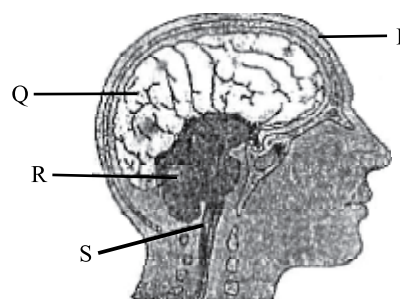
	Solid	Liquid	Gas
A.	T	V	S
B.	P	V	R
C.	Q	S	U
D.	P	T	R

44. 10 gms of three food components were taken and mixed with digestive juice from organ X under suitable conditions. The change in the amount of these food components after some time is shown here. The organ X can be _____.

Food component	Amount after some time
Starch	4 gms
Egg protein	10 gms
Mustard Oil	10 gms

- A. Oesophagus B. Mouth
 C. Stomach D. Small intestine

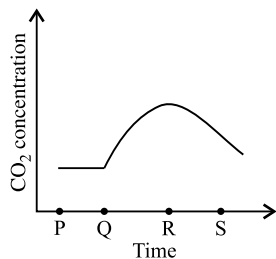
45. Identify the parts labelled as P, Q, R and S in the figure shown below and select the correct option.



	P	Q	R	S
A.	Cerebrum	Medulla	Skull	Cerebellum
B.	Skull	Cerebrum	Cerebellum	Medulla
C.	Medulla	Cerebellum	Cerebrum	Skull
D.	Cerebellum	Skull	Medulla	Cerebrum

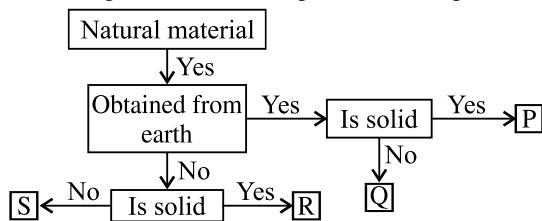
ACHIEVERS SECTION

46. The amount of carbon dioxide in the air in an area was seen to change over a period of time as shown in the graph here.

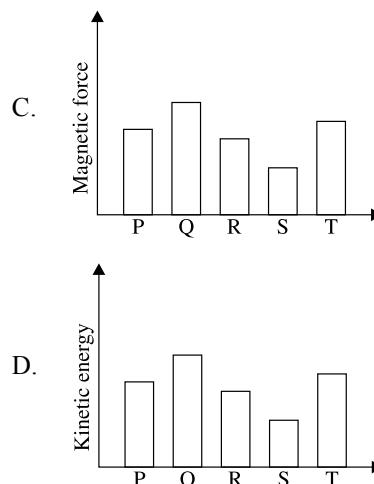
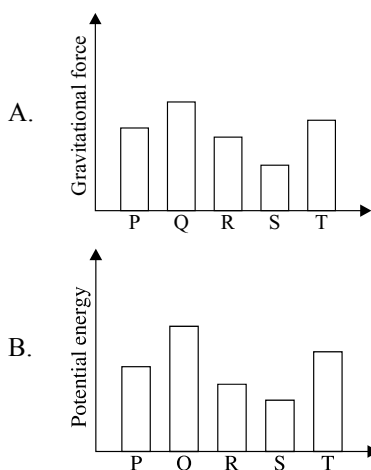
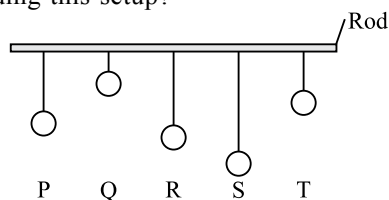


Select the most suitable option regarding this.

- A. A factory has been established in that area at time S.
 B. Deforestation has been done in that area at time Q.
 C. A new forest has been established there at point P.
 D. Large number of vehicles run by fossil fuels have been introduced in that area at point R.
47. Refer to the given flow chart. Which out of P, Q, R and S represent iron and petroleum respectively?



- A. R and S
 B. P and Q
 C. Q and S
 D. P and R
48. Manya set up an experiment as shown here (plastic balls of equal size and weight). Which graph is correct regarding this setup?

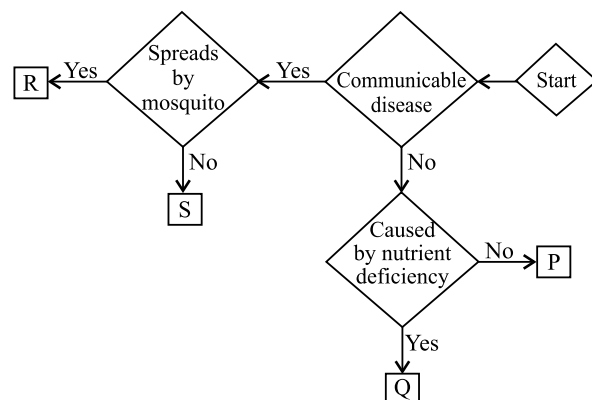


49. Study the table given below describing the characteristics of four animals W, X, Y and Z.

Description	W	X	Y	Z
Young one resembles the adult one	✓	✗	✓	✗
Has three stages in its life cycle	✓	✗	✗	✓
Young one goes through a process called moulting	✗	✓	✗	✓

Which of the following is likely to be a beetle?

- A. W
 B. X
 C. Y
 D. Z
50. Refer to the given flow chart and select the option that correctly identifies P, Q, R and S.



- | | P | Q | R | S |
|----|----------|---------|---------|-------------|
| A. | Beriberi | Anaemia | Rickets | Malaria |
| B. | Cholera | Dengue | Scurvy | Polio |
| C. | Typhoid | Anaemia | Malaria | Chikungunya |
| D. | Asthma | Scurvy | Dengue | Cholera |



Class 5

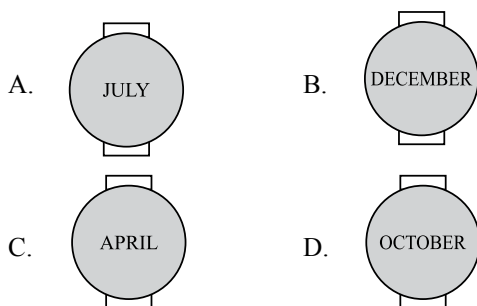


Set B

Year 2016

LOGICAL REASONING

1. Select the odd one out.



2. Select a figure from the options which is exactly embedded in the given Fig. (X).

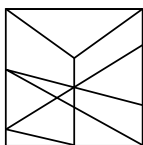


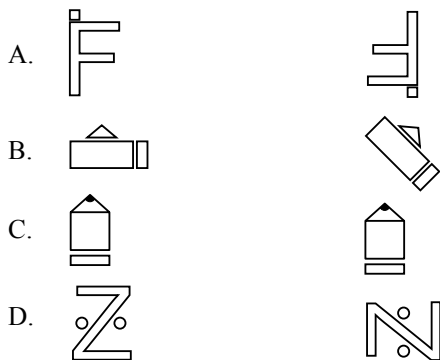
Fig. (X)



3. Select the CORRECT match.

Figures

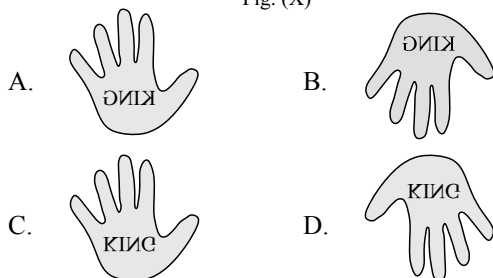
Figures after 90° clockwise rotation



4. Find the correct mirror image of Fig. (X), if the mirror is placed vertically to the left.



Fig. (X)



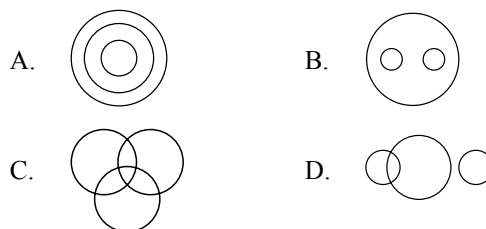
5. Mohit remembers that his niece Trishu had certainly been in Pune for one day after 16th February but before 21st February. While Mohit's mother remembers that Trishu had certainly visited Pune before 20th February but after 17th February. If both of them are correct, then on which day in February had Trishu visited Pune?

- A. 18th B. 19th
C. Either 18th or 19th D. 20th

6. How many meaningful three letter words can be formed with the letters ACR using each letter only once in each word?

- A. None B. One
C. Two D. Three

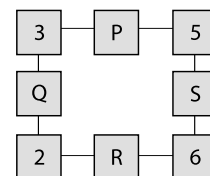
7. Select the Venn diagram from the options which best depicts the relationship amongst 'Girls, Athletes, Singers'.



8. If 'Clock' is called 'Television', 'Television' is called 'Radio', 'Radio' is called 'Oven', 'Oven' is called 'Grinder' and 'Grinder' is called 'Iron', then in what will a lady bake a cake?

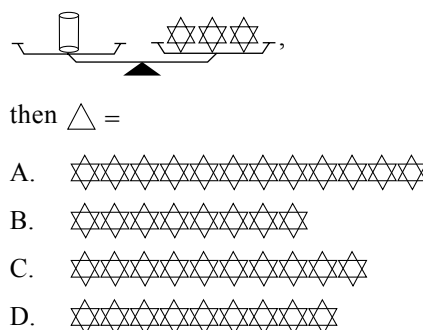
- A. Radio B. Oven
C. Grinder D. Iron

9. Find $P + Q + R + S$, so that the sum of all the numbers along each line is 15.

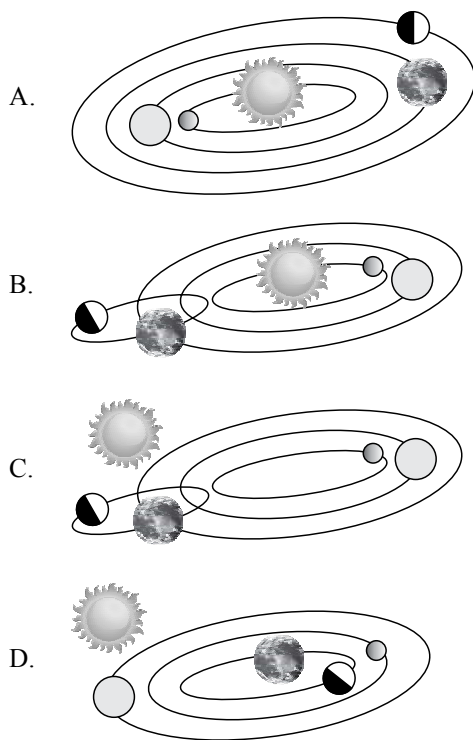
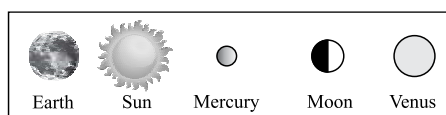


- A. 28
B. 27
C. 24
D. 23

10. If and then $\triangle =$



11. Which of the following figures shows the correct positions of the given celestial bodies in the solar system?



12. The breaking news flashed on the television is shown here. The calamity being talked about here is

- A. Avalanche
B. Landslide
C. Earthquake
D. Famine.

A collapse of huge mass of rocks was observed on a cliff in Darjeeling after rains, no casualties.

13. The relationship between crop products of two different seasons is shown here.

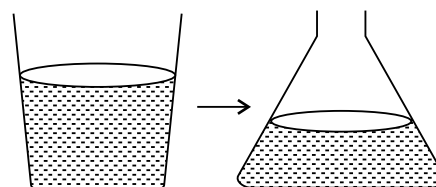
Peanut : Potato

Which of the following options also satisfies the same relationship?

- A. Beans: Wheat B. Wheat: Legumes
C. Maize: Rice D. Rice: Wheat

14. The given figure shows two containers, X and Y of different shapes. Farheen filled container X with 100 mL of water. She then poured all the water from container X to container Y.

Which of the following changes did she observe in container Y?



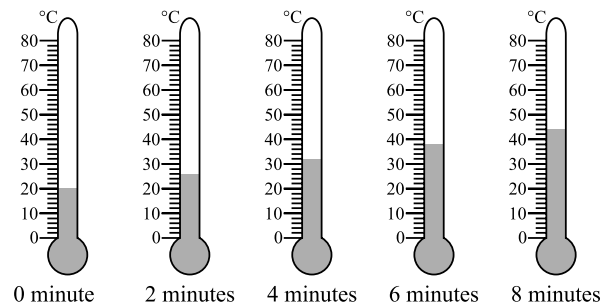
Container X

Container Y

- (i) Change in shape of water
(ii) Decrease in mass of water
(iii) Change in level of water
(iv) Decrease in volume of water

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

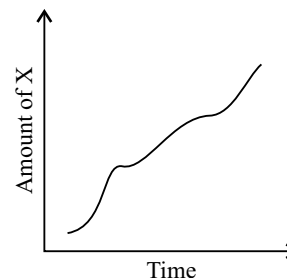
15. A cup of water was heated for 8 minutes. The given thermometers show the temperature readings during different times of heating.



What could be the temperature when it was heated for 3 minutes?

- A. 27 B. 28
C. 29 D. 30

16. A pollution monitoring agency plotted the change in amount of X on the earth over time as shown here.



Select the most suitable option regarding the graph.

- A. If X is UV rays reaching the earth, then it indicates acid rain.
B. If X is carbon dioxide content in the air, then it indicates increased global warming.
C. If X is ozone content in the atmosphere, then it indicates ozone layer depletion.
D. None of these

17. Identify the group that contains one example each of the three types of rocks and select the correct option.

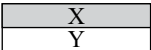
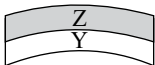
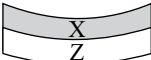
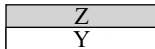
A. Granite, Pumice, Slate
 B. Obsidian, Sandstone, Marble
 C. Limestone, Conglomerate, Quartzite
 D. Slate, Gneiss, Chalk

18. The floating ribs are not attached to the _____ but only to the _____.

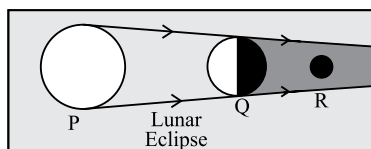
A. Breastbone, backbone
 B. Backbone, breastbone
 C. Backbone, ribcage
 D. Ribcage, breastbone

19. The order of the expansion of three metals X, Y and Z is $X = Y > Z$.

Then, which of the following would be observed if bimetallic strips made of any two of these metals are heated?

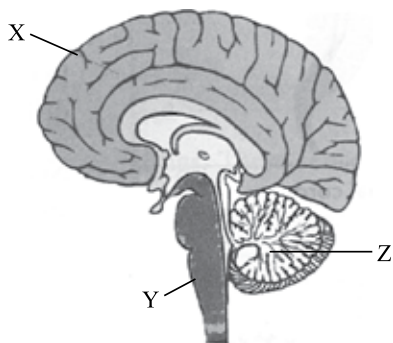
A.  B. 
 C.  D. 

20. The given figure shows a lunar eclipse. In case of a solar eclipse, the positions of _____ and _____ should be interchanged.



A. P, Q B. Q, R
 C. R, P D. Any of these

21. Match the labelled parts X, Y and Z in the given figure with the statements given below and select the correct option.



(i) Controls breathing, heartbeat, swallowing, vomiting and coughing.
 (ii) It allows us to accurately follow directions on a map.
 (iii) Alcohol affects this part the most.

	X	Y	Z
A.	(i)	(iii)	(ii)
B.	(ii)	(i)	(iii)
C.	(iii)	(ii)	(i)
D.	(i)	(ii)	(iii)

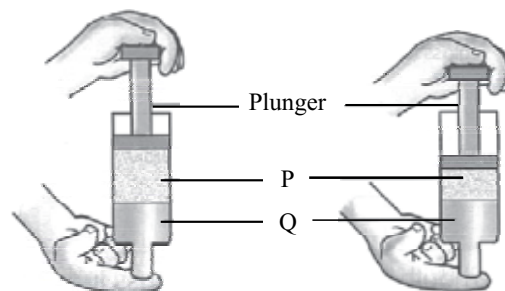
22. The organism shown here migrates

A. To reproduce
 B. To escape harsh weather
 C. In search of food
 D. In search of shelter.



Salmon

23. Two substances, P and Q, were used to fill a syringe. The plunger was then pushed in as shown in the diagram.

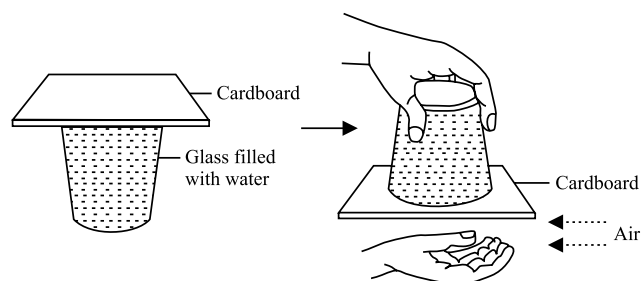


Which of the following would most likely be P and Q?

P	Q
A. Oil	Salt
B. Rice	Oxygen
C. Air	Water
D. Flour	Water vapour

24. Take a glass and fill it with water upto the brim. Make sure there are no air bubbles. Take a thick, stiff piece of cardboard and place it over the glass. Hold the glass with one hand and place your other hand over the cardboard and quickly turn the glass upside down. Now, slowly remove your hand from the cardboard.

What will happen in the given activity if a fast air is blown below the cardboard?



A. The cardboard will fall off.
 B. The cardboard will be harder to remove from the glass.
 C. The cardboard will bend into the glass.
 D. None of these

25. A pulley is a simple machine that makes our work easier by making the direction of force applied to be in the opposite direction of the force that
- Opposes the motion of an object by acting between the surface and the object
 - Pulls any object towards earth's core
 - Is exerted by magnet on an iron material
 - Produces current in circuits.

26. When the iodine test is performed on the leaf of a well-watered croton plant put in an airy and well lit place, the leaf shows patches of blue-black and colourless areas.

This is so because _____.

- Croton is a desert plant where only stem performs photosynthesis
- Croton plant cannot make its food in presence of direct light
- Croton leaves are patterned and have chlorophyll in some areas only
- The experiment has not been done carefully

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

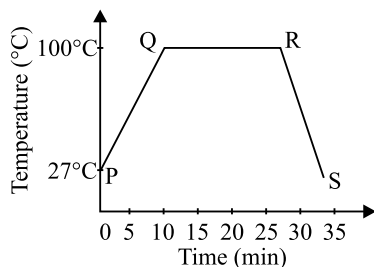
Column I

Column II

- | | |
|-------------|--------------------------------|
| a. Vitamins | (i) Keep body warm |
| b. Roughage | (ii) Formation of bones |
| c. Minerals | (iii) Fight diseases |
| d. Proteins | (iv) Build muscles |
| e. Fats | (v) Helps in removal of faeces |

- a-(i), b-(ii), c-(iv), d-(v), e-(iii)
- a-(ii), b-(i), c-(v), d-(iv), e-(iii)
- a-(iii), b-(v), c-(ii), d-(iv), e-(i)
- a-(iv), b-(ii), c-(i), d-(iii), e-(v)

28. An experiment was carried out with water by a group of pupils and the given graph was plotted to show their results. What processes are taking place between PQ, QR and RS?



- | | PQ | QR | RS |
|----|-----------|-----------|-----------|
| A. | Boiling | Cooling | Heating |
| B. | Boiling | Heating | Cooling |
| C. | Heating | Cooling | Boiling |
| D. | Heating | Boiling | Cooling |

29. X is an animal that lays eggs and takes care of its eggs and hatched young ones till they become able to survive on their own. Y is an animal that lays eggs and leaves them on their own.

Now, select the option that correctly identifies X and Y.

- | | X | Y |
|----|----------|-----------|
| A. | Frog | Rat |
| B. | Snake | Rabbit |
| C. | Lizard | Crocodile |
| D. | Pigeon | Salmon |

30. Rohit prepared two mixtures as given below:

Identify the separation methods that can be used to obtain the components of mixtures X and Y separately.

X :	Salt + Water
Y :	Sand + Water

- | | X | Y |
|----|--------------|-------------------------------|
| A. | Filtration | Sedimentation and decantation |
| B. | Distillation | Churning |
| C. | Filtration | Distillation |
| D. | Distillation | Filtration |

31. The given table classifies diseases into two groups on the basis of some similarity. Select the disease that can be placed at X.

Group 1	Group 2
Diabetes	Tuberculosis
Allergy	X
Anaemia	Measles

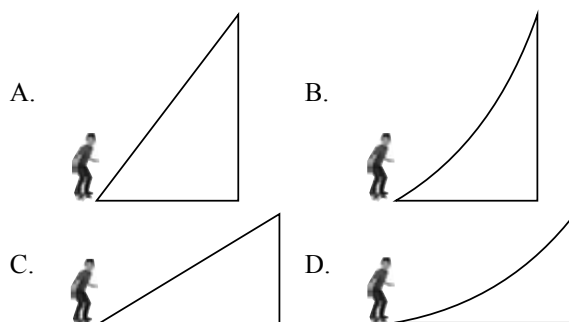
- Rickets
- Typhoid
- Asthma
- Scurvy

32. The given box lists some animals. Which two of them have same respiratory organs?

(i)	Tadpole	(ii)	Shark
(iii)	Frog	(iv)	Dolphin
(v)	Grasshopper	(vi)	Lizard
(vii)	Mosquito	(viii)	Salmon

- (i) and (iii) only
- (v) and (vii) only
- (ii) and (iv) only
- (vi) and (viii) only

33. Which ramp setup will require the highest amount of force for the skater to move up on it?



34. The couple shown here belongs to the state which is located in _____ India.

- A. Eastern
B. Northern
C. Western
D. Southern



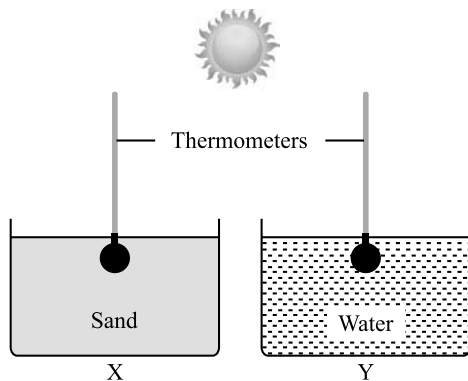
35. A cooking method which does not involve use of oil is _____.

- A. Frying nuggets B. Steaming rice
C. Boiling eggs D. Both B and C

36. Select an option that correctly compares the features of natural and synthetic fibres.

- | Natural fibres | Synthetic fibres |
|------------------|------------------|
| A. Waterproof | Non-waterproof |
| B. Wrinkle free | Wrinkle prone |
| C. Quick drying | Slow drying |
| D. None of these | |

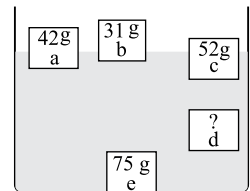
37. Neetu set-up an experiment as shown here.



What will be the level of mercury in thermometers placed in beakers X and Y after 30 minutes?

- A.
- B.
- C.
- D. None of these

38. Five objects a, b, c, d and e, of the same volume but different masses, are put into a tank of water as shown here.



Which of the following is most likely to be the mass of object d?

- A. 35 g B. 48 g
C. 64 g D. 80 g

39. The movement of the joint present between our thigh bone and shin bone can be compared to the movement of _____.

- A. Door hinges B. Joystick
C. Pestle in a mortar D. None of these

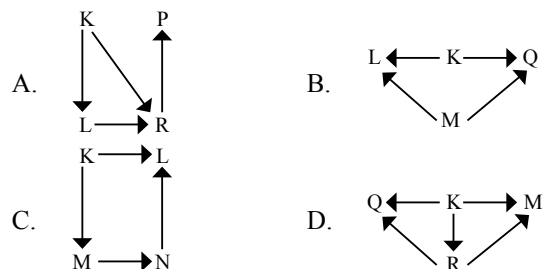
40. X reproduces with the help of tiny structures called spores. It gets its food from decaying matter. It is a/an _____.

- A. Fern B. Mushroom
C. Mango D. Alga

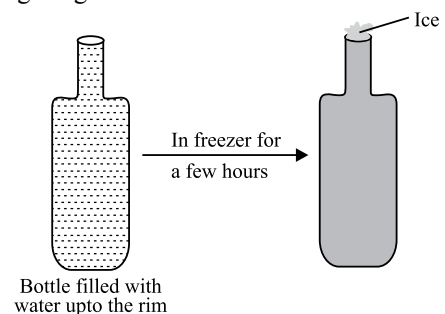
41. Study the given table.

Plant	Herbivores	Carnivores	Omnivores
K	L and M	N and P	Q and R

Which of the following food webs correctly shows the food relationships of some organisms in the table above?



42. Ajay filled a bottle upto the rim with water, and placed it in the freezer. What he saw after a few hours is shown in the figure given here. What does it show?



- A. Freezing decreases mass of water.
B. Freezing compresses water.
C. Freezing increases volume of water.
D. Freezing increases mass of water.

43. In case of heat stroke, what should be done immediately?

- A. Cover the patient with any cloth, preferably with woollen cloth.
- B. Give the patient a solution of salt, sugar and lime or preferably juice of an unripe mango.
- C. Make the patient lie down in a sunny place.
- D. Give hot tea or coffee to the patient.

44. Which of the following events will result in a decrease in the population of butterflies?

- (i) Increase in the population of birds
- (ii) Increase in the supply of plant fertilisers
- (iii) Reduction in the number of flowering plants
- (iv) Increased use of insecticides by man in gardens and green belts

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

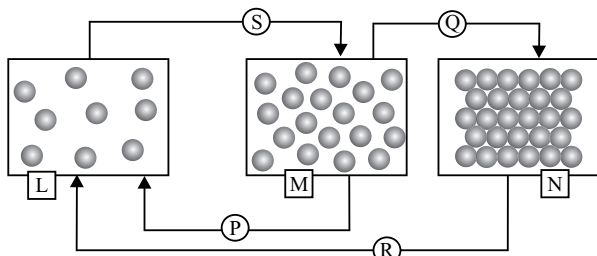
45. Study the given diagram. What can the bus-driver do to reduce the pollution caused by his bus?



- A. Send the bus for servicing more regularly
- B. Tie a plastic bag around the exhaust pipe
- C. Use a bigger exhaust pipe
- D. Put a silencer at the exhaust pipe

ACHIEVERS SECTION

46. Refer to the given diagrams 'L', 'M' and 'N' showing three states of matter.

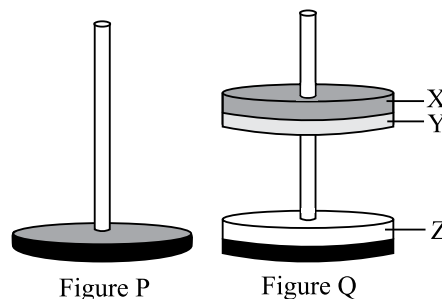


The arrows P, Q, R and S represent processes involved in the interchange of states of matter. Identify P, Q, R and S.

- | | P | Q | R | S |
|----|--------------|--------------|-------------|--------------|
| A. | Freezing | Melting | Evaporation | Condensation |
| B. | Evaporation | Condensation | Melting | Freezing |
| C. | Condensation | Evaporation | Heating | Freezing |
| D. | Evaporation | Freezing | Sublimation | Condensation |

- A. The release of Q is always very violent and it comes out with an explosion.
- B. The intense pressure inside the earth pushes P towards the surface of the earth and generally P cools just below the earth's surface and then hardens to form igneous rocks.
- C. Release of Q from R causes global warming.
- D. Both B and C

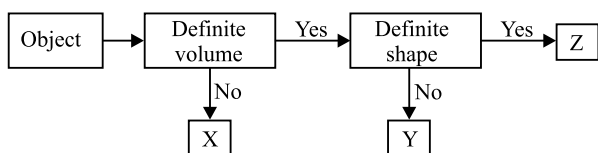
48. A wooden rod is attached to a wooden disc to form a support structure as shown in figure P and then three metal rings X, Y and Z are placed above the wooden disc as shown in figure Q.



Which of the following conditions can be true regarding the given setup?

- A. Rings X and Y are both magnets with their opposite poles facing each other.
- B. Both Y and Z are magnets while X is a magnetic material.
- C. Rings Y and Z are both magnets with their similar poles facing each other.
- D. All of these

49. Study the given flow chart.

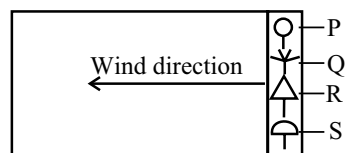


Which of the following options correctly identifies the examples that belong to X, Y and Z?

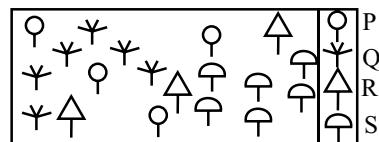
	X	Y	Z
A.	Book	Air	Blood
B.	Water	Electricity	Oxygen
C.	Nitrogen	Syrup	Vase
D.	Stapler	Cheese	Milk

50. Mr. Bhatt ploughed a field and killed all the weeds. He left plants P, Q, R and S growing on one side of the field and then left the field untouched for one

month as he went out of the city. The wind blew in the same direction for the whole month.



When he returned, this is what he saw:



Which one of the plants P, Q, R and S is likely to have its seeds dispersed by wind?

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

SPACE FOR ROUGH WORK



Class 5

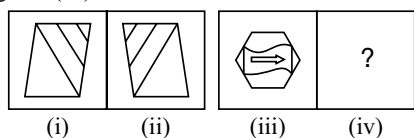


Set A

Year 2017

LOGICAL REASONING

1. There is a certain relationship between figures (i) and (ii). Establish a similar relationship between figures (iii) and (iv) by selecting a suitable figure from the given options which will replace the (?) in figure (iv).



- A. B. C. D.

2. Find the value of P, Q, R and S respectively.

Shape	1/4 turn anticlockwise	1/8 turn clockwise
F	P	R
Y	Q	S

- A. B. C. D.

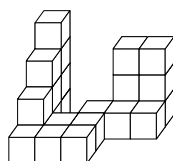
3. Some letters are given which are numbered 1, 2, 3, 4 and 5. Arrange the letters to form a meaningful word and select the correct option.

O H U T C
1 2 3 4 5

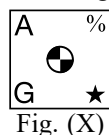
- A. 3, 1, 5, 2, 4 B. 2, 1, 5, 3, 4
C. 4, 5, 1, 3, 2 D. 4, 1, 3, 5, 2

4. Count the number of cubes in the given figure.

- A. 21
B. 24
C. 20
D. None of these



5. Find the correct water image of Fig.(X).

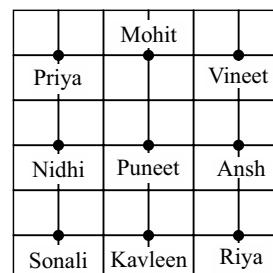


- A. B. C. D.

6. If in a certain code language, RESULT is coded as TLURES, then how will REPEAT be coded in the same language?

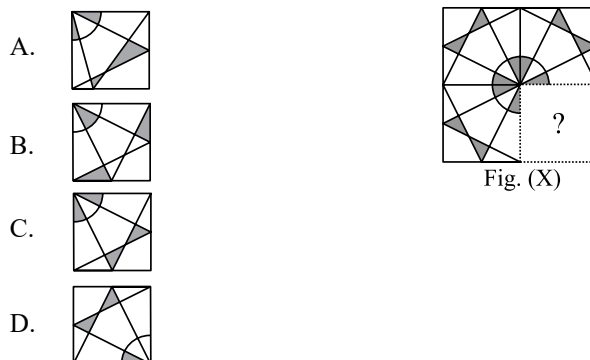
- A. TAEPER B. TAEREP
C. EATREP D. EATPER

7. Who is standing to the North-East of Puneet?



- A. Ansh B. Vineet
C. Sonali D. Mohit

8. Which of the following options will replace the (?) to complete the pattern in Fig. (X)?



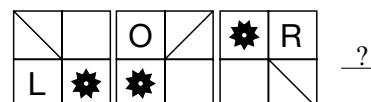
9. Read the given information carefully and answer the question that follows.

- Sarthak and Payal are good in swimming.
- Payal and Sachin are good in dancing.
- Sachin and Sarthak are good in playing guitar.
- Chhavi and Payal are good in singing.

Who among the following is good in playing guitar and dancing?

- A. Sarthak B. Chhavi
C. Payal D. Sachin

10. Which of the following figures will continue the given figure series?



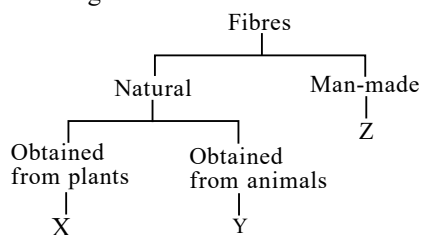
- A. B. C. D.

11. Manisha categorised living organisms on the basis of body covering. She made four groups of three organisms each. By mistake she placed one wrong member in each group. Identify the wrong member of each group and select the correct option.

Group I : Gecko, Python, Capybara
 Group II : Mussel, Parakeet, Oyster
 Group III : Dove, Sparrow, Hippopotamus
 Group IV : Hedgehog, Porcupine, Tortoise

- A. Capybara of group I should be interchanged with oyster of group II.
 B. Mussel of group II should be interchanged with porcupine of group IV.
 C. Hippopotamus of group III should be interchanged with hedgehog of group IV.
 D. Parakeet of group II should be replaced with clam.

12. Refer to the given flow chart.



Select the option which correctly identifies X, Y and Z.

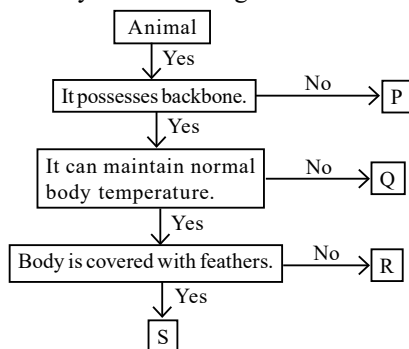
- A. X : Cotton, Silk; Y : Wool, Nylon; Z : Polyester, Linen
 B. X : Cotton, Linen; Y : Wool, Silk; Z : Polyester, Nylon
 C. X : Cotton, Nylon; Y : Wool, Silk; Z : Polyester, Linen
 D. X : Cotton, Silk; Y : Wool, Linen; Z : Polyester, Nylon

13. Study the given relationships carefully and select the option which correctly identifies P-S.

- (i) *Pistia* : *Hydrilla* :: *Wolffia* : P
 (ii) Pigeon : Ostrich :: Sparrow : Q
 (iii) Chickenpox : Tetanus :: Mumps : R
 (iv) Wildebeest : Snake :: Deer : S

P	Q	R	S
A. Waterhyacinth	Emu	Malaria	Rhinoceros
B. Tape grass	Rhea	Tuberculosis	Lion
C. Lotus	Parrot	Typhoid	Fox
D. Water lily	Vulture	Anaemia	Bear

14. Refer to the given flow chart and select the option which correctly identifies organisms P-S.



P	Q	R	S
A. Cockroach	Crab	Snake	Penguin
B. Crab	Frog	Dolphin	Parrot
C. Fish	Frog	Penguin	Eagle
D. Crab	Shark	Emu	Bat

15. Refer to the given food components (P-S) and their corresponding sources.

P - Drumstick, Broccoli, Celery

Q - Carrot, Papaya, Mango

R - Beans, Pulses, Eggs

S - Ghee, Butter, Nuts

Select the incorrect statement regarding them.

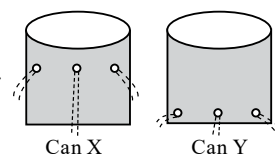
- A. Q keeps our eyes and skin healthy while R builds our muscles and repair the tissues.
 B. Among P, Q, R and S, 1 gram of R produces maximum energy.
 C. P adds bulk to the food and helps to remove waste materials out of our body.
 D. Extra S gets stored under our skin and is used when the body does not get sufficient food.

16. Pick the odd one out from each group given below and select the correct option.

- (i) Haematite, Bituminous, Bauxite, Pyrite
 (ii) Malaria, Dengue, Sleeping sickness, Typhoid
 (iii) Pliers, Scissors, Nutcracker, Crowbar

(i)	(ii)	(iii)
A. Bituminous	Typhoid	Nutcracker
B. Bauxite	Malaria	Scissors
C. Haematite	Sleeping sickness	Crowbar
D. Pyrite	Dengue	Pliers

17. Two identical cans filled with water were taken and three holes were made on each of them at two different levels as shown in the figures.



Select the correct option regarding given can X and Y.

- A. Force of the water coming out from holes of can X is lesser than force of the water coming out from holes of can Y.
 B. Jet coming from the can X travels further sideways as compared to jet from the can Y.
 C. Pressure at all the three holes in can Y is same.
 D. Both A and C

18. Meetu saw a bird walking and scratching the soil for worms and seeds. Which kind of foot would the bird have?

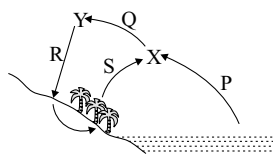


19. Ruchir had to prepare a list of kharif crops. By mistake, he put some rabi crops also in the list. Pick out the kharif crops from the list prepared by Ruchir and select the correct option.

(i) Radish	(ii) Maize	(iii) Mustard
(iv) Oats	(v) Peas	(vi) Rice
(vii) Soybean	(viii) Cotton	(ix) Barley
(x) Linseed		

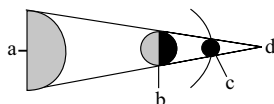
- A. (ii), (iv), (ix) and (x) only
 B. (ii), (vi), (vii) and (viii) only
 C. (i), (ii), (vi) and (x) only
 D. (iii), (v), (ix) and (x) only
20. The given table shows solubility of three substances. The following steps were carried out to obtain Y from the mixture of substances X, Y and Z.
- | Substance | Solubility in water |
|-----------|---------------------|
| X | Insoluble |
| Y | Soluble |
| Z | Insoluble |
- (i) Filtration (ii) Evaporation to dryness
 (iii) Addition of water
- Select the correct order of steps to obtain Y.
- A. (i) → (ii) → (iii) B. (iii) → (i) → (ii)
 C. (ii) → (i) → (iii) D. (i) → (iii) → (ii)

21. Refer to the given representation of water cycle. Read the following statements and select the incorrect ones regarding labels X, Y, P, Q, R and S in water cycle.

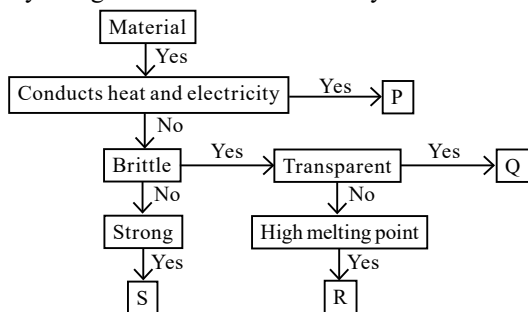


- (i) The physical states of water at X and Y are liquid and gas, respectively.
 (ii) Dew is also formed by the process Q.
 (iii) Process P speeds up in windy condition.
 (iv) Snow and sleet are the types of R.
 (v) Process S is also responsible for fogging of washroom mirror while we take hot shower.
- A. (i), (iv) and (v) only B. (i), (iii) and (iv) only
 C. (i) and (v) only D. (ii), (iii) and (v) only

22. Look at the given figure. It shows lunar eclipse. Where is the Earth in it ?



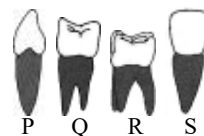
23. Study the given flow chart carefully.



- Select the option which correctly identifies P, Q, R and S.

	P	Q	R	S
A.	Ceramic	Glass	Iron	Plastic
B.	Iron	Glass	Ceramic	Plastic
C.	Glass	Plastic	Ceramic	Iron
D.	Iron	Ceramic	Graphite	Glass

24. Refer to the given figures of types of teeth (P, Q, R and S) in human beings. Select the correct option regarding them.

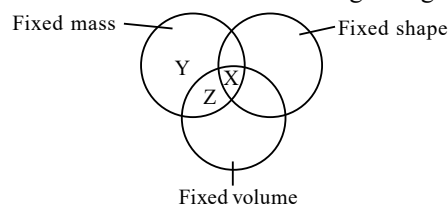


- A. S is used in tearing of food while P is used in cutting or biting of food.
 B. Q is total 8 in number while R is total 12 in number in human jaws.
 C. R type of teeth is absent in milk teeth and it appears in second set of teeth *i.e.*, permanent teeth.
 D. P is total 2 in number while S is total 4 in number.

25. _____ is a form of renewable energy.

- A. Coal B. Petroleum
 C. Wind D. None of these

26. Refer to the given Venn diagram. Identify X, Y and Z and select the correct statement regarding them.



- A. The process of changing Y into X is called freezing.
 B. The process of changing X into Y is called sublimation.
 C. The process of changing Z into X is called evaporation.
 D. The process of changing Z into X is called condensation.

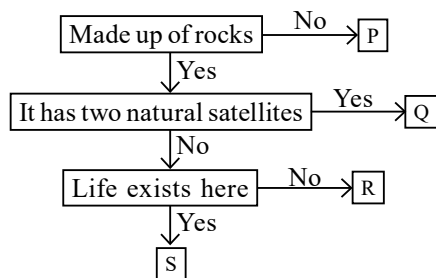
27. Study the given relationship.

Glomerate : Quartzite : Obsidian

- Select the option which correctly satisfies the same correlation.

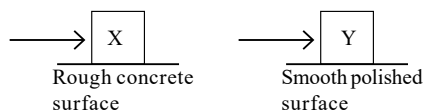
- A. Limestone : Gneiss : Pumice
 B. Basalt : Granite : Slate
 C. Marble : Shale : Granite
 D. Shale : Basalt : Pumice

28. Study the given flow chart carefully regarding planets and select the option which correctly identifies P, Q, R and S.



- A. Q has rings orbiting it while P has no rings.
 B. Q has breathable air with equal amount of carbon dioxide and oxygen.
 C. S has a lot of rusted iron dust which makes it appear red.
 D. R is also known as morning or evening star.

29. Two identical iron blocks X and Y being pushed on two different surfaces as shown in the given figure.



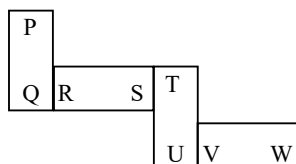
Which of the following is correct regarding X and Y ?

- A. Block X requires more force than block Y to move it.
 B. Block Y experience more frictional force than block X.
 C. If same forces are applied to both blocks then block X will move faster than Y.
 D. Both A and B

30. Which of the following is a physical change?

- A. Cooking of food B. Tearing of paper
 C. Burning of wood D. Germination of seed

31. Shikha arranged four magnets such that one end of each magnet was attracted to its neighbouring magnet as shown in the given figure.



Which of the following is another possible arrangement?

- A.

V	W	P	Q
T			R
U			S

 B.

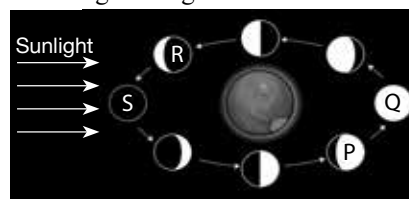
P	Q	T	U
S			V
R			W
- C.

S	R	P	Q
U			V
T			W

 D.

R	S	P	Q
V			U
W			T

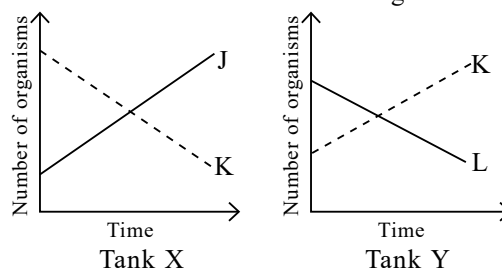
32. Refer to the given figure.



Select the option which correctly identifies P, Q, R and S.

- | P | Q | R | S |
|-------------------|-----------|-----------------|-----------|
| A. Waxing gibbous | Full Moon | Waning crescent | New Moon |
| B. Waning gibbous | New Moon | Waxing crescent | Full Moon |
| C. Waxing gibbous | New Moon | Waning crescent | Full Moon |
| D. Waning gibbous | Full Moon | Waxing crescent | New Moon |

33. Refer to the given graphs representing changes in populations of organisms J, K and L in two tanks, X and Y over a period of time. Tank X contains organisms J and K whereas tank Y contains organisms K and L.



Select the food chain which shows correct linking of these organisms.

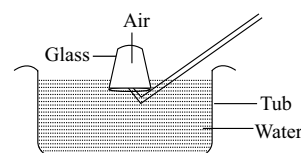
- A. $J \rightarrow K \rightarrow L$ B. $K \rightarrow J \rightarrow L$
 C. $K \rightarrow L \rightarrow J$ D. $L \rightarrow K \rightarrow J$

34. Read the given paragraph carefully and select the option which correctly fill the blanks (i-iv).

Earthquakes are sudden tremors caused due to the disturbances within the Earth's (i) due to rubbing of (ii) against each other. (iii) is used to record intensity, direction and duration of earthquakes while (iv) is used to measure the magnitude of earthquake.

- | (i) | (ii) | (iii) | (iv) |
|-----------|-----------------|---------------|---------------|
| A. Core | Tectonic plates | Richter scale | Seismogram |
| B. Mantle | Tectonic plates | Seismogram | Richter scale |
| C. Crust | Tectonic plates | Seismograph | Richter scale |
| D. Crust | Tectonic plates | Richter scale | Seismograph |

35. Study the given figure carefully. What will happen to the water level in the tub when some air is sucked out of the glass?



- A. Water level in the tub will go down.
 B. Water level in the tub will rise.
 C. Bubbles will appear in the tub.
 D. Water level in the tub will remain the same.

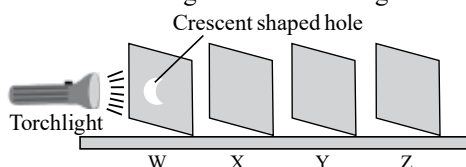
36. Refer to the given table which shows the characteristics of four animals P, Q, R and S.

Characteristics	P	Q	R	S
Undergoes moulting	✓	✓	×	✓
Young one resembles adult	×	✓	✓	×
Life cycle has four stages	✓	×	✓	×

Which of the following could be mosquito and cockroach respectively?

Mosquito Cockroach

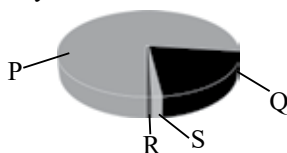
- A. Q R
B. P Q
C. P R
D. Q S
37. Arti cut out sheets of the same size from four different materials. She arranged them in a straight line as shown.



She then made a crescent-shaped hole in sheet W. She then shone torchlight on set-up and saw a bright crescent-shaped patch of light on sheet Y only. Select the option that correctly identifies the materials of which sheets W, X, Y and Z are made up of.

W X Y Z

- A. Metal Clear plastic Frosted glass Cardboard
B. Cardboard Frosted glass Clear plastic Metal
C. Cardboard Clear plastic Metal Frosted glass
D. Frosted glass Metal Cardboard Clear plastic
38. Refer to the given figure representing composition of air. Identify P-S and select the correct statement.



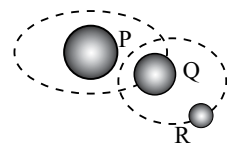
- A. Animals get R from plants.
B. S in the air is needed for burning.
C. Presence of P in air reduces the rate of burning.
D. Special bacteria present in soil convert Q in air into a form that can be used by plants.
39. Refer to the given figure and identify P, Q and R. Select the option which correctly matches these parts with the given functions (i) – (v).



- | | |
|--------------------------|----------------|
| (i) Reasoning | (ii) Learning |
| (iii) Controls breathing | (iv) Balancing |
| (v) Controls Movements | |

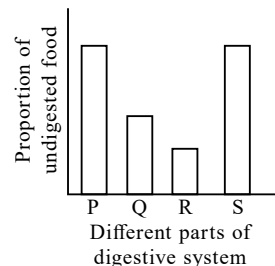
- | | P | Q | R |
|----|-----------|-------------|-------------|
| A. | (i) | (ii), (iii) | (iv), (v) |
| B. | (i), (ii) | (v) | (iii), (iv) |
| C. | (ii) | (i), (iv) | (iii), (v) |
| D. | (i), (ii) | (iii) | (iv), (v) |

40. Refer to the given figure. Identify P, Q and R and select the correct statement.

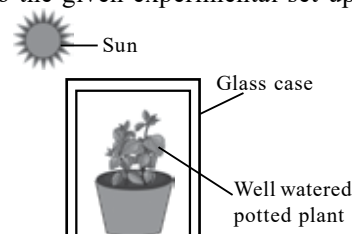


- A. Movement of Q around P causes changes in season.
B. In total lunar eclipse, R is completely masked by the shadow of Q.
C. In total solar eclipse, R masks P completely.
D. All of these
41. Select the method that prevents soil erosion by water.
- A. Terrace farming B. Wind breaks
C. Embankments D. Both A and C

42. Refer to the given graph representing the proportion of undigested food in different parts of digestive system P-S. Identify the parts and select the correct option regarding them.



- A. P is buccal cavity while S is stomach.
B. Q is small intestine while R is oesophagus.
C. S is oesophagus while R is small intestine.
D. P is large intestine while Q is small intestine.
43. Refer to the given experimental set-up.



Which of the following graphs correctly depicts the changes in the amount of oxygen and carbon dioxide gas in the air present within glass case over time?

Key :
— Oxygen --- Carbon dioxide

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

44. The given table shows three solids X, Y and Z which can be dissolved in different liquids P, Q, R and S.

Same volume of different liquids	Mass of the solid dissolved		
	X	Y	Z
P	5	5	10
Q	2	1	0
R	0	0	10
S	20	10	20

If solids Y and Z are accidentally mixed up, which of the following liquids is most suitable to separate them?

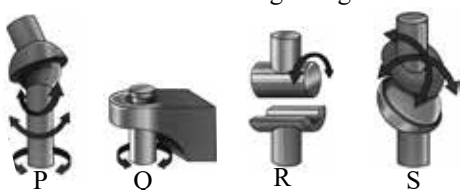
- A. P B. Q
C. R D. S

45. If weight of an object is 0.25 kg on Earth then what will be its weight on Moon?

- A. 0.04 kg B. 0.25 kg
C. 1 kg D. 0.08 kg

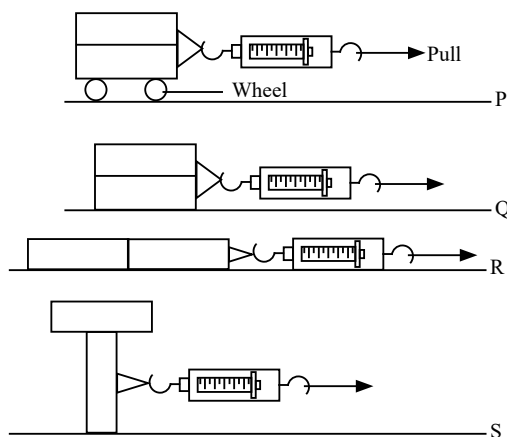
ACHIEVERS SECTION

46. Refer to the given figures representing the movement of joints in our body. Identify the type of joints P-S and select incorrect statement regarding them.

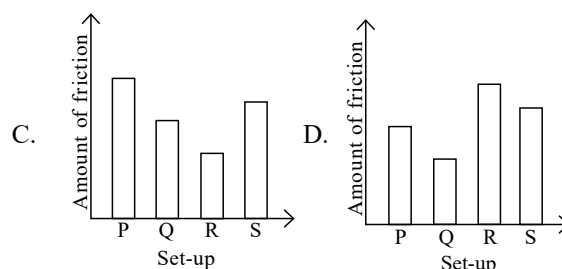
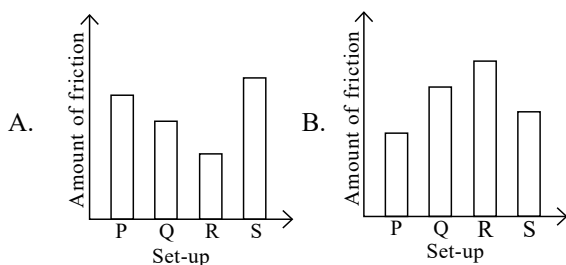


- A. The hip and shoulder joints are examples of P.
B. Elbows and knees have R type of joint.
C. Q type of joint helps the backbone to bend easily.
D. Wrists and ankles have S type of joint while Q is found between the skull and the backbone.

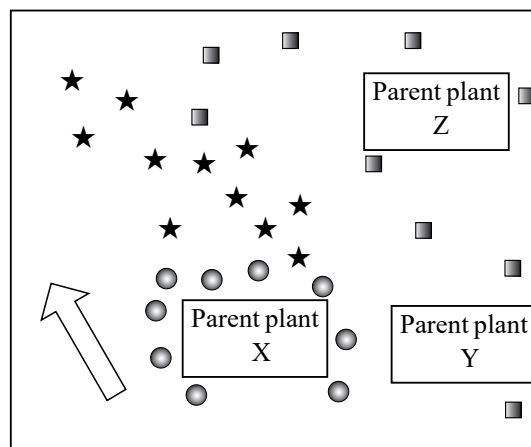
47. Refer to the given experimental set-ups using two identical wooden blocks as shown here.



Based on the given figures, which of the following graphs is correct regarding the amount of friction produced between the wooden blocks and their surface?



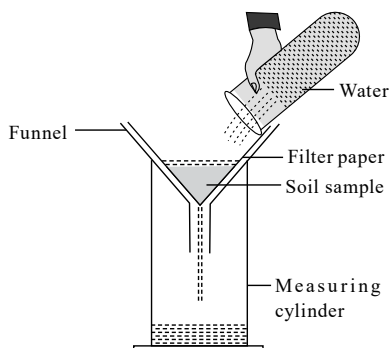
48. Refer to the given figure representing seed dispersal. Select the option which correctly identifies plants X, Y and Z.



Key	● Seed of plant X	★ Seed of plant Y	■ Seed of plant Z	↖ Wind direction
-----	-------------------	-------------------	-------------------	------------------

- | | X | Y | Z |
|----|--------------------|--------------------|------------------|
| A. | Balsam, Dandelion | Hiptage, Castor | Xanthium, Urena |
| B. | Dandelion, Hiptage | Balsam, Castor | Xanthium, Urena |
| C. | Balsam, Urena | Hiptage, Dandelion | Castor, Xanthium |
| D. | Balsam, Pea | Dandelion, Hiptage | Xanthium, Urena |

49. Radha carried out an experiment to find out how fast water can pass through three different types of soil. She set up the experiment as shown below. Using a stop watch, she measured the time taken for 20mL of water to pass through each type of soil.



She recorded the results as shown below:

Type of soil	X	Y	Z
Time taken (in seconds) by water to pass through it	38	9	28

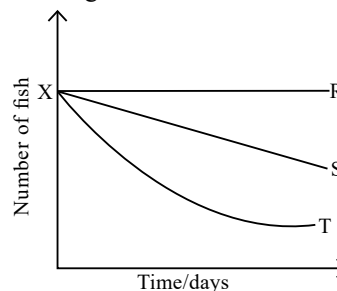
Identify soils X, Y and Z and select the correct option regarding them.

- A. Y type of soil is usually found in deserts.
B. Potters use X type of soil to make pots.

- C. Soil Z contains nutrients and humus in right proportion which makes it suitable for growth of most plants.
D. All of these

50. Three similar cages containing same number of pollution sensitive fish X were placed in three different ponds (R, S and T).

The given graph shows the change in the number of fish in three cages over time.



According to the given graph which pond is most polluted (I) and which pond has the highest concentration of dissolved oxygen in the water (II)?

- | | | |
|----|----------|-----------|
| | I | II |
| A. | R | T |
| B. | T | R |
| C. | S | T |
| D. | S | R |

SPACE FOR ROUGH WORK



Class 5

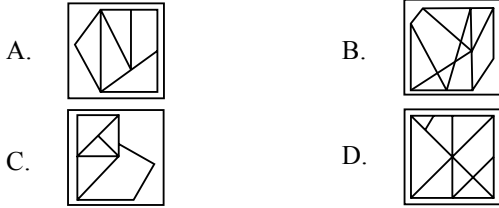
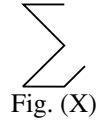


Set B

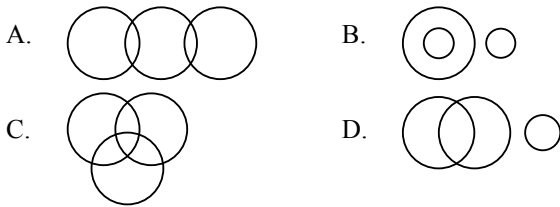
Year 2017

LOGICAL REASONING

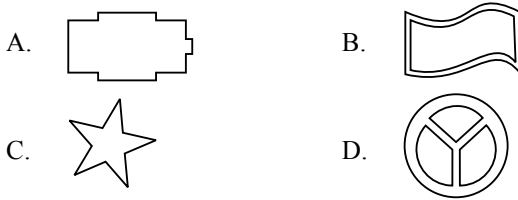
1. In which of the following figures, Fig. (X) is exactly embedded as one of its parts?



2. Which of the following Venn diagrams best represents the relationship amongst, "Singers, Males, Teachers"?



3. Select the odd one out.



4. Arrange the following words in a logical sequence.

Stem, Fruit, Root, Seed, Flower

1 2 3 4 5

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

5. Find the mirror image of Fig. (X), if the mirror is placed vertically to the left.

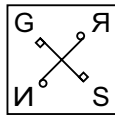
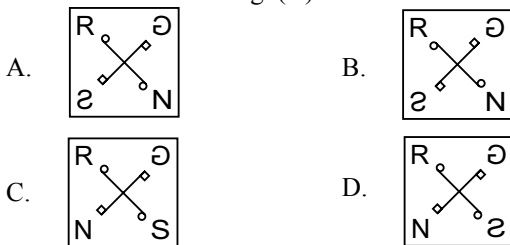


Fig. (X)

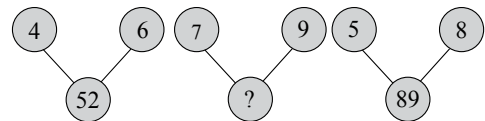


6. Bhavna is facing the Shopping Centre. She made a 90° clockwise turn, followed by 225° anti-clockwise turn. Where will she be facing now?



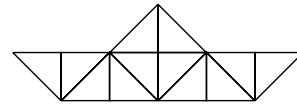
- A. Mall B. Hospital
C. School D. Hotel

7. Find the missing number, if same rule is followed in all the three figures.



- A. 127 B. 130
C. 141 D. 137

8. Find the number of triangles in the given figure.



- A. 23 B. 24
C. 21 D. None of these

9. Five students participated in an exam.

- Kavya ranked higher than Abhay.
- Abhay ranked higher than Sumit.
- Kavya ranked lower than Nancy.
- Anshu ranked between Kavya and Abhay.

Who ranked the highest?

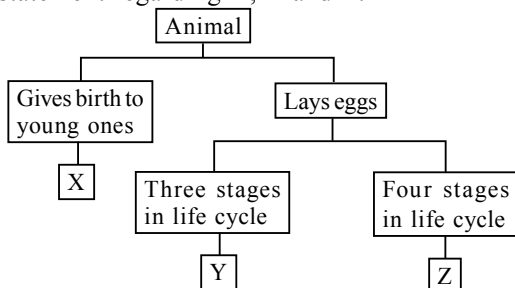
- A. Kavya B. Anshu
C. Nancy D. Abhay

10. Kavleen starts her piano classes from 2nd Monday of August 20XX. If she takes leaves on the days which are multiples of 5, then how many days she goes for piano classes in that month? (Assume that every Sunday is a holiday.)

August 20XX						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

- A. 17 B. 15
C. 18 D. 16

11. Refer to the given flow chart and select the correct statement regarding X, Y and Z.



- A. X could be a warm blooded animal which possesses a covering of feathers on its body.
 B. Z could breathe through spiracles while X could breathe through blowholes.
 C. Body of Z may be covered with hair whereas body of X may be covered with shell.
 D. Example of Y could be butterfly whereas example of Z could be bat.

12. While brushing, Rohit's gums bleed. He has wobbly teeth, feels tired most of the time and has pain in the joints.

Select the disease he is suffering from and its cause.

- A. Rickets, deficiency of vitamin D
 B. Anaemia, deficiency of vitamin A
 C. Scurvy, deficiency of vitamin C
 D. Beri-beri, deficiency of vitamin B

13. Vedant grouped plants on the basis of dispersal of their seeds. By mistake, he placed one wrong member in one of the groups. Identify this group and select the correct option.

- A. Lotus, Coconut, *Xanthium*
 B. Maple, *Hiptage*, Dandelion
 C. *Urena*, Litchi, Watermelon
 D. Pea, *Geranium*, Balsam

14. The given table shows melting and boiling points of some substances P, Q and R.

Substance	Melting point (°C)	Boiling point (°C)
P	999	1800
Q	-15	78
R	-139	4

Which of these substances are solid, liquid and gas at room temperature (25°C)?

- | | Solid | Liquid | Gas |
|----|-------|--------|-----|
| A. | P | R | Q |
| B. | P | Q | R |
| C. | R | P | Q |
| D. | Q | P | R |

15. Select the incorrect match.

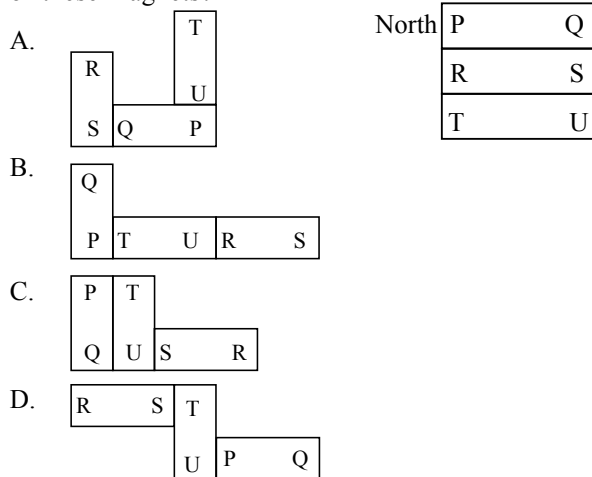
- (i) Exosphere – Air is very thin
 (ii) Thermosphere – Meteors burn
 (iii) Mesosphere – Radio waves are reflected
 (iv) Stratosphere – Most jetplanes fly
 (v) Troposphere – Weather changes take place
 A. (iv) and (v) only
 B. (iii), (iv) and (v) only
 C. (ii) and (iii) only
 D. (i), (ii) and (iii) only

16. Select the option which correctly identifies joints involved in performing the following actions.

- (i) Moving your arm in a circle
 (ii) Kneeling down
 (iii) Twisting your wrist
 (iv) Twisting your neck from side to side
 A. Hinge Pivot Ball and socket Gliding
 B. Ball and socket Hinge Gliding Pivot
 C. Pivot Hinge Ball and socket Gliding
 D. Gliding Pivot Ball and socket Hinge

17. Meena had arranged three bar magnets as shown in the figure.

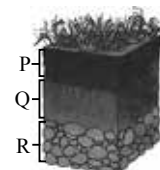
Which of the following is another possible arrangement of these magnets?



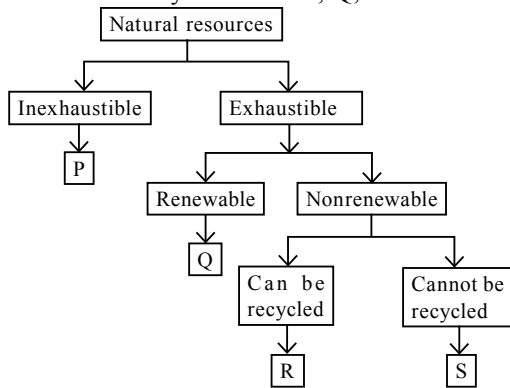
18. Refer to the given figure of soil profile.

Identify different layers of soil labelled as P, Q and R and select the incorrect option regarding these.

- A. P is rich in humus.
 B. Q is rich in organic matter.
 C. Water is present in less quantity in R.
 D. Both B and C

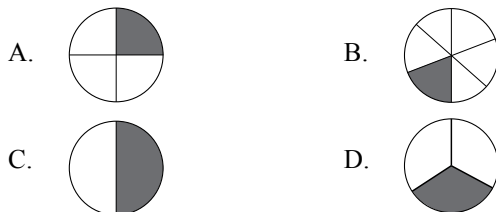


19. Refer to the given flow chart and select the option which correctly identifies P, Q, R and S.

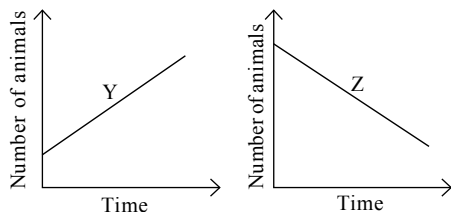


P	Q	R	S
A. Fossil fuel	Metal	Forest	Sunlight
B. Air	Water	Metal	Sunlight
C. Water	Petroleum	Coal	Metal
D. Sunlight	Forest	Metal	Fossil fuel

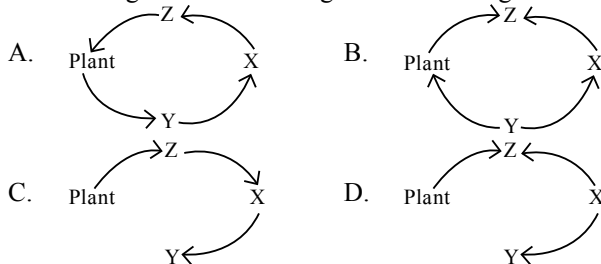
20. The gravitational pull of Moon is _____ of that of Earth.



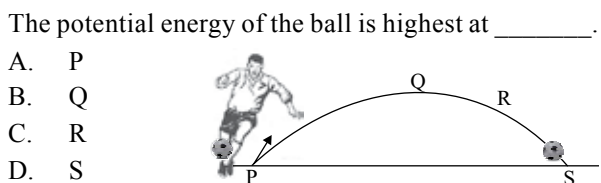
21. The following graphs show changes in the populations of animals Y and Z inhabiting a community when a population of animal X was introduced in this community.



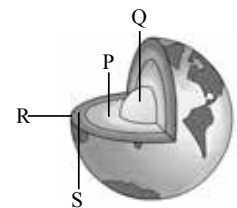
Which of the following could be correct interlinking of these organisms according to their feeding habits?



22. The diagram below shows the path taken by a ball when Sundram kicks it.



23. Refer to the given figure and select the incorrect statement regarding it.



- A. Continents and oceans are present in R.
 B. P contains iron and nickel in molten state.
 C. Q is the thickest layer of the Earth.
 D. S is composed of silicate rocks rich in iron and magnesium.

24. Select the option which correctly identifies X (first class lever), Y (second class lever) and Z (third class lever) from the list of the objects given in the table.

(i) Pliers	(ii) Bottle opener
(iii) Tweezers	(iv) Scissors
(v) Wheelbarrow	(vi) Ice tongs
(vii) Fishing rod	(viii) Nutcracker

X	Y	Z
A. (i), (iv), (v)	(ii), (vii), (viii)	(iii), (vi)
B. (i), (ii), (v)	(iv), (vii)	(iii), (vi), (viii)
C. (i), (iv)	(ii), (v), (viii)	(iii), (vi), (vii)
D. (i), (ii), (iv)	(iii), (viii)	(v), (vi), (vii)

25. Following events took place when hunters killed all the lions in a jungle.

P : The grass population decreased.

Q : The deer population rapidly increased.

R : The deer population slowly decreased.

S : There was insufficient food for the deer.

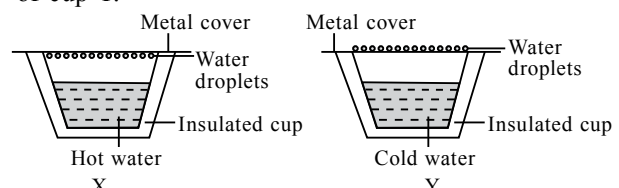
Which of the following is the correct sequence of these events?

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

26. Arrange the following planets in decreasing order regarding time required by them to complete one revolution around the Sun.

- (i) Mars (ii) Earth
 (iii) Jupiter (iv) Mercury
 A. (iv) > (ii) > (iii) > (i) B. (i) > (ii) > (iv) > (iii)
 C. (iii) > (i) > (ii) > (iv) D. (ii) > (i) > (iv) > (iii)

27. Tanu took two identical insulated cups, one with hot water (X) and other with cold water (Y) and then covered them with metal cover. After 2 minutes she observed water droplets on the inner surface of the metal cover of cup X and outer surface of metal cover of cup Y.



Which of the following statements is correct regarding this observation?

- A. Water vapour in the surrounding warmer air condense on the cooler metal cover of cup Y.
 B. In cup X, water vapour condense when they meet the cooler inner surface of the metal cover.
 C. The insulated sides maximise heat loss and gain from the cups X and Y.
 D. Both A and B

28. Four items P, Q, R and S were buried at different places in the same ground for a month. The table shows the mass of the items before and after they were buried.

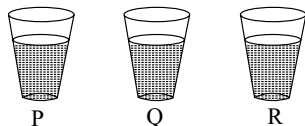
Items	Before	After
P	12 g	8 g
Q	24 g	14 g
R	18 g	17 g
S	28 g	24 g

The least and most easily biodegradable items are respectively

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

29. Three glasses P, Q and R having equal amount of water were taken at room temperature and equal amount of salt was added to each one of them. After that, P was cooled, Q was heated and R was left undisturbed. Water in which glass will now taste most salty?

- A. P
 B. Q
 C. R
 D. All will taste the same.



30. Read the following statements and select the option which correctly identifies the true (T) and false (F) ones.

- (i) The last two pairs of ribs are called floating ribs.
 (ii) Motor nerves carry messages from the sense organs to the brain or the spinal cord.
 (iii) Cerebrum is the largest part of human brain.
 (iv) Medulla controls many necessary involuntary activities of the body.

(i) (ii) (iii) (iv)

- A. F T F T
 B. F T F F
 C. T T T F
 D. T F T T

31. The given table shows adaptations of birds matched to their functions. Select the incorrect match.

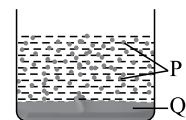
S.No.	Adaptation	Function
(i)	Feathers	Keep body warm
(ii)	Hollow bones	Reduce body weight
(iii)	Webbed feet	Grip onto prey
(iv)	Streamlined body shape	Reduces air resistance during flight

- A. (iii) only
 B. (i) and (iii) only
 C. (ii) and (iv) only
 D. None of these

32. In an experiment, two different substances, P and Q were dissolved in a beaker of water. The beaker was then left undisturbed for few minutes. The result of the experiment is shown in the given figure.





P and Q could be

- P**
 A. Salt
 B. Salt
 C. Sand particles
 D. Chalk
Q
 Sugar
 Sand particles
 Chalk
 Sugar



33. Select the animal that is found in the similar habitat as the animal shown here.



- A.  B. 
 C.  D. 

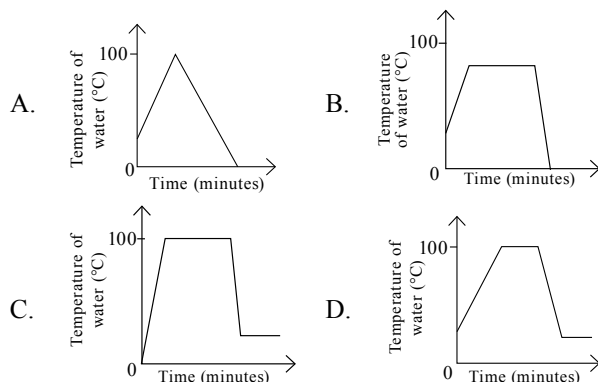
34. Refer to the given paragraph.

P is formed when strong thunderstorm updrafts and carry water droplets well above the freezing level. In winters water vapour condenses to form Q on the surface of leaves. When temperature is very low then the Q freezes into R.

Select the option which correctly identifies P, Q and R.

- P** **Q** **R**
 A. Dew Hail Frost
 B. Dew Frost Hail
 C. Hail Dew Frost
 D. Hail Frost Dew

35. Shalini heated some tap water in a kettle until it reached its boiling point. She boiled the water for few minutes. She then placed the kettle of boiled water on the table for sometime to allow it to cool. Which of the following graphs correctly represents changes in the temperature of water in the kettle with time during the experiment?



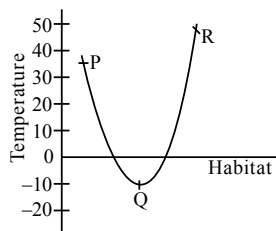
36. Correct the given statements by replacing the underlined words and select the correct option.

- (i) Iris is the light sensitive tissue lining the back of our eye, where image is formed.
 (ii) Eardrum transforms sounds into electrical impulses which are carried to brain *via* nerves.

(i) (ii)

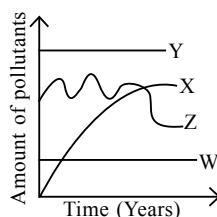
- | | |
|-----------|------------|
| A. Cornea | Inner ear |
| B. Pupil | Middle ear |
| C. Retina | Inner ear |
| D. Cornea | Middle ear |

37. Refer to the given graph which indicates temperatures of different habitats. Select the incorrect statement regarding it.



- A. Animals found in region P may show camouflage, e.g., chameleon.
 B. Polar bear, penguin and fur seal are found in Q region.
 C. Plants like cactus and animals like kangaroo rat and camel are found in R region.
 D. Animals found in R region possess thick fat layer below skin and thick fur coat.

38. Refer to the given graph representing changes in amount of pollutant in four rivers W, X, Y and Z overtime. Select the river that will continue to support highest number of aquatic plants and animals.



- | | |
|------|------|
| A. W | B. X |
| C. Y | D. Z |

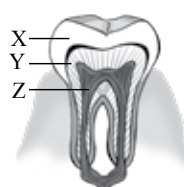
39. Radhika paired one kharif and one rabi crop as shown here.

Rice :: Mustard

Select the option that pairs crops in the similar manner as done by Radhika.

- A. Wheat :: Groundnut
 B. Coriander :: Oat
 C. Soybean :: Chickpea
 D. Cowpea :: Bitter gourd

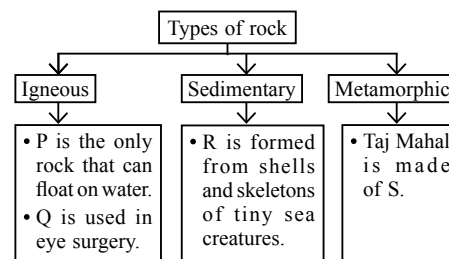
40. Refer to the given figure of structure of human tooth. Identify X, Y and Z and select the incorrect statement.



- A. X is the hardest substance in our body.
 B. X supports Y on the tooth.

- C. Z has nerve and blood vessels.
 D. Y is quite hard whereas Z is soft.

41. Refer to the given flow chart.



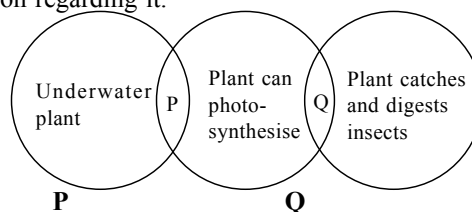
Identify P, Q, R and S and select the incorrect statement regarding them.

- A. P is often used as body scrubber and Q is formed by quick cooling of lava.
 B. Chalk is an example of R whereas gneiss is an example of S.
 C. P is porous and light weight rock.
 D. Calcite or calcium carbonate is the main minerals present in R.

42. Which of the following options groups all greenhouse gases?

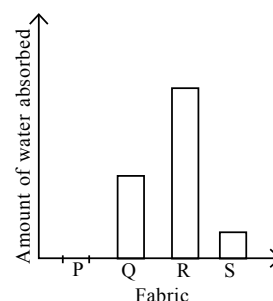
- A. Carbon dioxide, Methane, Water vapour and Oxygen
 B. Carbon dioxide, Methane, Water vapour and Ozone
 C. Nitrogen, Oxygen, Carbon dioxide and Methane
 D. Oxygen, Carbon dioxide, Water vapour and Methane

43. Refer to the given Venn diagram and select the correct option regarding it.



- | | |
|--------------|---------------|
| A. Duckweed | Water lily |
| B. Tapegrass | Venus flytrap |
| C. Pond weed | Croton |
| D. Lotus | Wolffia |

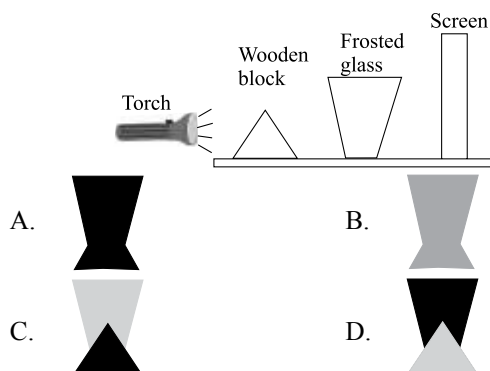
44. Ridhaan conducted an experiment on fabrics for measuring their degree of absorbency. He placed same sized pieces of fabric P, Q, R and S separately into identical beakers of coloured water for ten minutes. His observations are recorded in the given graph.



Which of the following options correctly identifies the fabrics P – S?

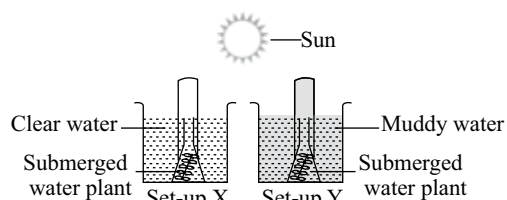
	P	Q	R	S
A.	Polyester	Silk	Cotton	Wool
B.	Wool	Cotton	Polyester	Silk
C.	Polyester	Cotton	Wool	Silk
D.	Wool	Silk	Cotton	Polyester

45. A frosted glass and a wooden block were placed near a screen as shown in the figure. Which of the following shadows would probably be obtained on the screen when a torch is shone directly on both the objects?

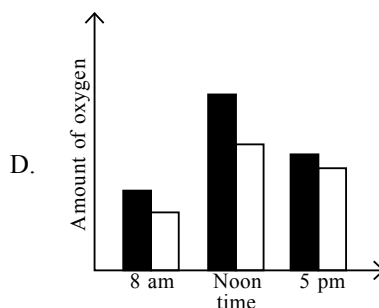
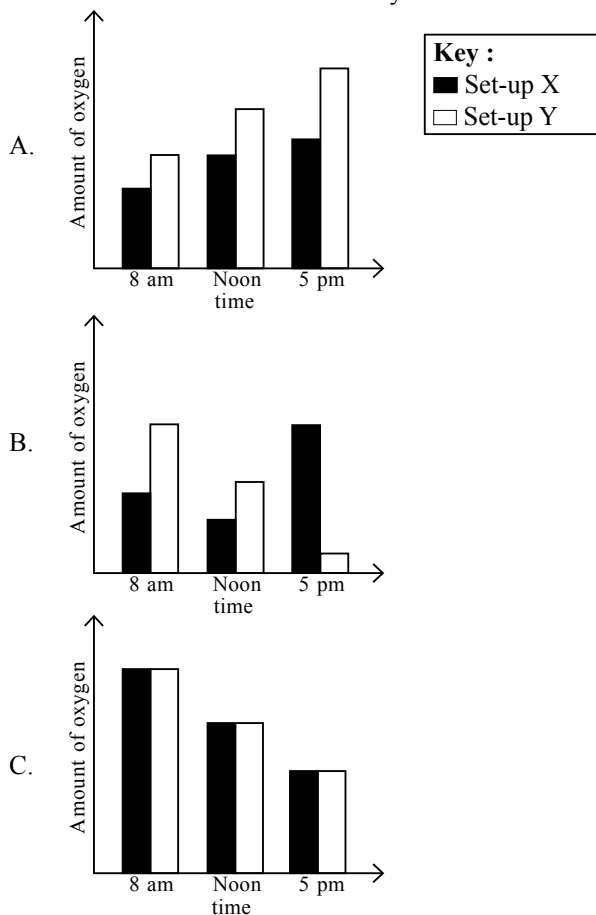


ACHIEVERS SECTION

46. Ritu set-up an experiment as shown here to find out the effect of muddy water on the rate of photosynthesis in water plants.

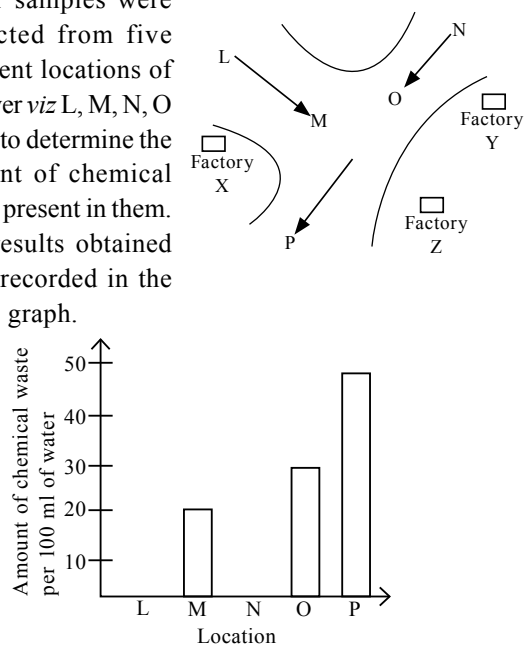


She measured the amount of oxygen produced by the water plants at different times of the day. Which of the following graphs best represents the amount of oxygen produced by plants in set-ups X and Y at different times of the day?



47. The given figure shows a river flowing downstream.

Water samples were collected from five different locations of the river viz L, M, N, O and P to determine the amount of chemical waste present in them. The results obtained were recorded in the given graph.



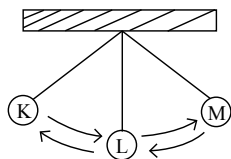
Based on the above given information, select the incorrect statements.

- (i) Factory X discharged more chemical waste into the river than factory Y.
 - (ii) Water at locations L and N is more fit for domestic use than water at location P.
 - (iii) Location P is the most suitable for fish culture.
- A. (i) and (iii) only B. (ii) and (iii) only
C. (i) and (ii) only D. (i), (ii) and (iii)

48. Read the given statements carefully and select the correct option.

- (i) P is a strong and elastic tissue that binds a bone to another bone.
 - (ii) Q is a tissue that attaches muscles to bones.
 - (iii) R is a tough tissue found between the joints which is softer and much more flexible than the bone.
- A. P could be tendon while R could be cartilage.
 - B. P could be ligament while R could be cartilage.
 - C. P could be cartilage while Q could be ligament.
 - D. P could be tendon while Q could be ligament.

49. Refer to the given figure in which ball is tied to a string and released from K. The ball swung from K to L and then to M before it swung back.



Which of the following statements are incorrect regarding this?

- (i) The ball had maximum potential energy at K whereas minimum kinetic energy at L.
- (ii) The ball had maximum kinetic energy at K whereas minimum potential energy at L.
- (iii) K and M have same potential energy.
- (iv) The ball had maximum potential energy and minimum kinetic energy at M.

(v) The ball had minimum potential energy and maximum kinetic energy at L.

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

50. Match column I (Diseases) with column II (Deficient vitamins/minerals) and column III (Symptoms) and select the correct option from the given codes.

Column I	Column II	Column III
(i) Night blindness	(a) Vitamin C	(P) Bleeding gums
(ii) Rickets	(b) Vitamin D	(Q) Brittle bones
(iii) Scurvy	(c) Vitamin A	(R) Swelling in neck
(iv) Goitre	(d) Iodine	(S) Weakness and fatigue
(v) Anaemia	(e) Iron	(T) Poor vision
A. (i)-(d)-(T), (ii)-(e)-(S), (iii)-(b)-(R), (iv)-(c)-(Q), (v)-(a)-(P)		
B. (i)-(c)-(T), (ii)-(a)-(P), (iii)-(b)-(Q), (iv)-(d)-(R), (v)-(e)-(S)		
C. (i)-(d)-(T), (ii)-(c)-(Q), (iii)-(a)-(P), (iv)-(b)-(R), (v)-(e)-(S)		
D. (i)-(c)-(T), (ii)-(b)-(Q), (iii)-(a)-(P), (iv)-(d)-(R), (v)-(e)-(S)		

SPACE FOR ROUGH WORK



Class 5



Set A

Year 2018

LOGICAL REASONING

1. Which of the following numbers will replace the (?) to continue the pattern given below?



- A. 130
B. 238
C. 230
D. 300

2. If in a certain code language, NEWS is coded as SHZN, then in the same language MOON is coded as _____.

- A. NROM
B. NRRM
C. NRMR
D. NQRM

3. Select the odd one out.

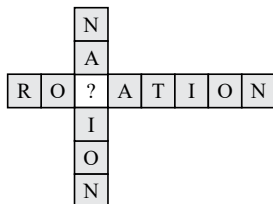
- A.  B. 
C.  D. 

4. Amit celebrates his birthday on 28th September 20XX. If the day before yesterday was Amit's birthday, then today is _____.

September 20XX						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

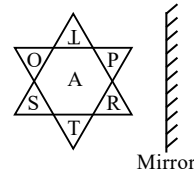
- A. Sunday
B. Monday
C. Saturday
D. Thursday





5. Choose the letter which will complete both the given words.



- A. T
B. P
C. A
D. S

6. Find the correct mirror image of the given figure.



- A.  B. 
C.  D. 



7. Five friends X, Y, Z, U and V are sitting in a row facing North. U is between V and Y. Y is to the immediate left of Z. X is to the immediate left of V. Who is in the middle?


- A. U
B. X
C. Y
D. V





8. Arrange the following in a logical sequence of words. Meter, Centimeter, Kilometer, Millimeter, Decameter

1 2 3 4 5

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

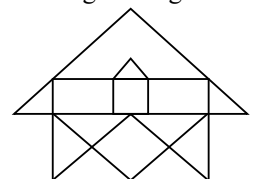
9. If  is related to  in some way, then in

the same way  is related to _____.

- A.  B. 
C.  D. 

10. Count the number of triangles in the given figure.

- A. 20
B. 16
C. 22
D. None of these

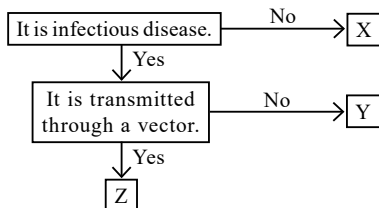


11. Refer to the given relationship based on body coverings and select the option which satisfies the same relationship.

Parakeet : Armadillo : Opossum

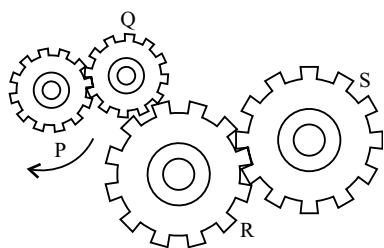
- A. Partridge : Turtle : Rabbit
B. Egret : Flamingo : Hedgehog
C. Porcupine : Oyster : Lizard
D. Whale : Crab : Tortoise

12. Refer to the given flow chart.



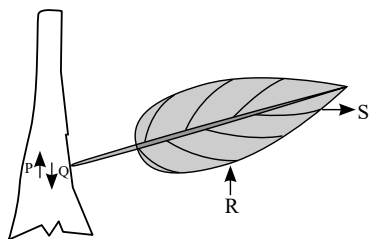
Identify X, Y and Z and select the correct statement regarding them.

- A. X could be anaemia whereas Z could be plague.
B. Y could be measles whereas Z could be scurvy.
C. X could be rickets whereas Y could be dengue.
D. Y could be malaria whereas Z could be cholera.
13. The given diagram shows four gears. Raj applied a force to make the smallest gear P, rotate in a clockwise direction as shown. In which direction will gears Q, R and S rotate?



- A. Anti-clockwise Anti-clockwise Clockwise
B. Anti-clockwise Clockwise Anti-clockwise
C. Clockwise Anti-clockwise Clockwise
D. Clockwise Anti-clockwise Anti-clockwise

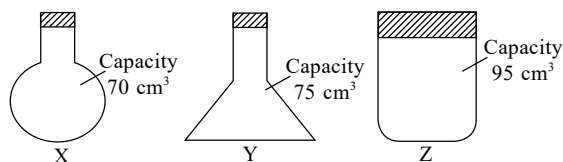
14. Study the given figure of a photosynthesising green leaf.



Which of the following arrows indicate the movement of oxygen and carbon dioxide, respectively?

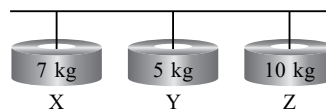
- A. S and R
B. P and S
C. P and Q
D. Q and R

15. Refer to the given figure representing three different vessels X, Y and Z.

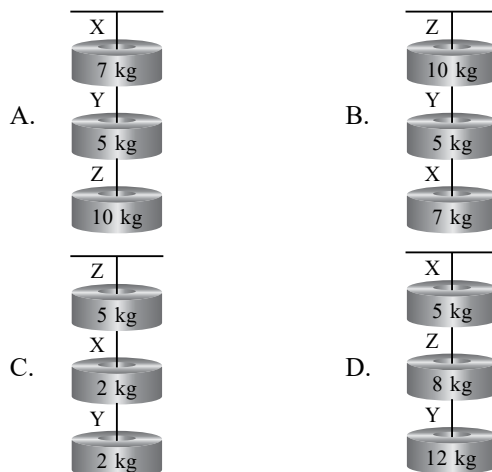


Which of the given vessels can contain 80 cm^3 of air?

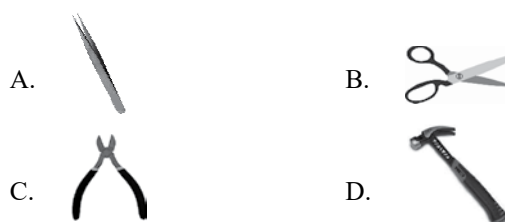
- A. Z only
B. X and Y only
C. Y and Z only
D. X, Y and Z
16. Mihir had three types of strings X, Y and Z. He tested the strength of the strings by hanging weights on them. He increased the weights until the string broke. The maximum mass that each string can hold before breaking is shown in the given figure.



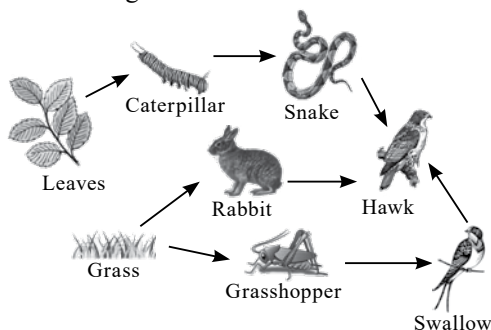
He then tried using the strings to hang different weights. Based on the test results, which of the following arrangements is possible?



17. Which of the following is not a first class lever?

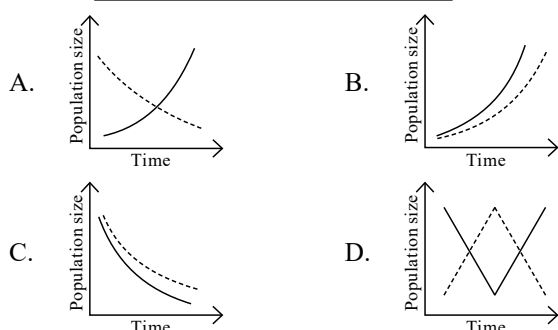


18. Refer to the given food web.



Which of the following best illustrates changes in the population of snake and grasshopper over time if hawk population is removed?

Key : Snake : _____
Grasshopper : _____

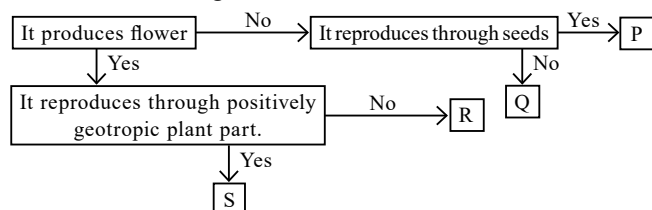


19. The constellation shown here is known as _____.

- A. Ursa major
- B. Ursa minor
- C. Cassiopeia
- D. Orion



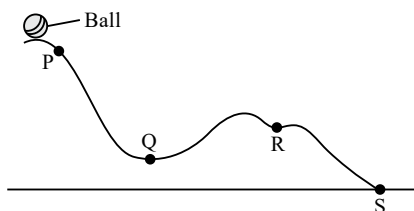
20. Refer to the given flow chart.



Select the option which correctly identifies P-S.

- | P | Q | R | S |
|---------------|--------|------------|----------------------|
| A. Mango tree | Fern | Potato | <i>Bryophyllum</i> |
| B. Maize | Onion | Strawberry | Sweet potato |
| C. Pine tree | Moss | Ginger | <i>Dahlia</i> |
| D. Wheat | Banana | Rose | <i>Bougainvillea</i> |

21. A ball rolled down on an undulated slope from points P to S as shown here.



At which point ball's kinetic energy will be lowest?

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

22. Select the option that pairs rocks of two different kinds as shown here in the box.

Sandstone : Pumice

- A. Granite : Obsidian
- B. Shale : Limestone
- C. Slate : Marble
- D. Conglomerate : Obsidian

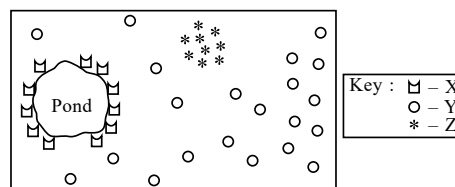
23. The given table represents the characteristics of three different objects X, Y and Z.

Characteristics	Objects		
	X	Y	Z
Bends easily	✓	✓	✓
Absorbs water	×	✓	×
Gets stretched easily	✓	×	×

Which of the following could be X, Y and Z?

- | | X | Y | Z |
|----|-------------|-------------|---------------|
| A. | Plastic bag | Cardboard | Rubber band |
| B. | Paper | Rubber band | Cardboard |
| C. | Rubber band | Sponge | Plastic straw |
| D. | Sponge | Cardboard | Rubber band |

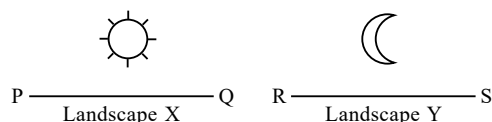
24. Refer to the given picture representing seed dispersal of three different plants.



Which of the following could be Z?

- A. Balsam
- B. Dandelion
- C. *Hiptage*
- D. Coconut

25. Refer to the given figure X and Y and select the incorrect option.

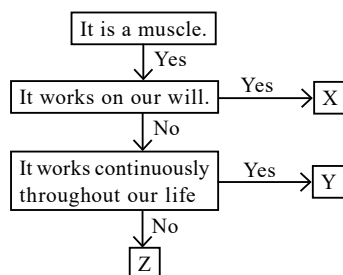


- A. In X, cool air rushes from P to Q if Q is water body.
- B. In Y, cool air rushes from R to S if S is water body.
- C. In X, P is cooler than Q if P is water body.
- D. In Y, R is cooler than S if S is water body.

26. Read the given paragraph.
X and Y are animals which possess backbone and flippers and breathe through lungs. X lays egg whereas Y gives birth to young ones.
Select the option which correctly identifies X and Y.

X	Y
A. Turtle	Platypus
B. Frog	Porcupine
C. Penguin	Dolphin
D. Seal	Whale

27. Refer to the given flow chart and select the correct statement regarding X, Y and Z.



- A. X appears smooth whereas Z appears striated.
B. Y pumps blood throughout the body.
C. X lines the internal wall of blood vessels.
D. None of these

28. Total lunar eclipse occurs only on the night of a

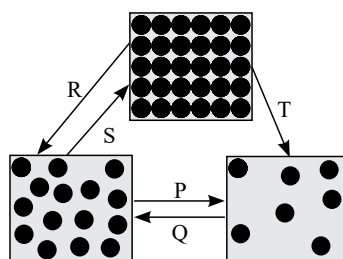
- A. Full Moon
B. New Moon
C. Half Moon
D. Crescent Moon.

29. Study the given relationship and select the option which satisfies the same relationship.

Duckweed : Lotus : *Hydrilla*

- A. Tape grass : Water lily : Water lettuce
B. Water lily : Tape grass : Water hyacinth
C. Water hyacinth : Water lily : Tape grass
D. Water lettuce : Water hyacinth : Water lily

30. Refer to the given figure.

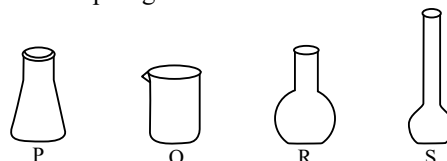


Identify processes P–T and select the correct option.

- A. Process S is involved in obtaining salt from sea water whereas process P is involved in formation of ice cube.

- B. Process P is involved in drying of wet soil whereas process T is involved in reduction of size of naphthalene ball.
C. Process Q is involved in defrosting of refrigerator whereas process S is involved in drying of wet clothes.
D. None of these

31. 200 mL of water at 25°C was poured into each of the given containers P–S. The containers were then left in an open garden under the sun.



Which of the following containers will have maximum volume of water after a few hours?

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

32. Suniti keeps observing phases of the moon appearing on different nights. On November 10, she observed . Which phase of Moon, she would most likely observe on November 13 and November 16?

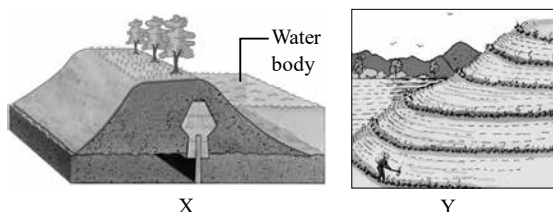
	November 13	November 16
A.		
B.		
C.		
D.		

33. Arun categorised different types of fibres on the basis of their sources. He made three groups consisting of three fibres each. By mistake he placed one wrong fibre in each group. Identify the wrong member in each group and select the correct option.

Group I : Cotton, Jute, Acrylic
Group II : Wool, Polyester, Silk
Group III : Nylon, Rayon, Linen

- A. Acrylic of group I should be interchanged with linen of group III.
B. Polyester of group II should be interchanged with rayon of group III.
C. Cotton of group I should be replaced with hemp.
D. Linen of group III should be replaced with coir.

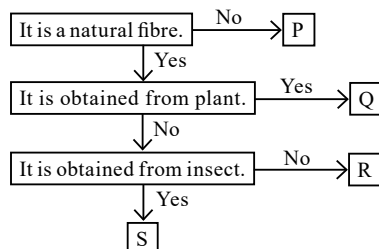
34. Refer to the given figure.



Which of the following is correct regarding X and Y?

- A. X is a method of reducing soil erosion by wind only whereas Y is a method of reducing soil erosion by water only.
 B. Both X and Y are practised only in mountainous regions.
 C. X represents embankment whereas Y represents step farming.
 D. None of these
35. _____ is a rodent, it feeds by _____.
- A. Cow, biting
 B. Mosquito, sucking
 C. Rat, gnawing
 D. Rabbit, tearing

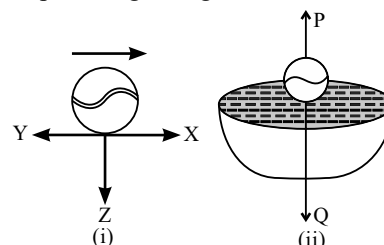
36. Refer to the given flow chart and select the option which correctly identifies jute and silk respectively.



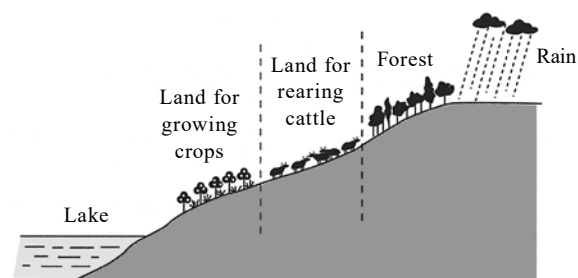
- A. Q and R
 B. P and S
 C. Q and S
 D. P and R
37. Study the given steps involved in formation of fruit from flower.
- P. The ovary develops into a fruit.
 Q. The pollen grains grow long tube inside the style.
 R. The ovules grow into seeds.
 S. The male gametes fuse with the egg.
 T. The pollen grains are deposited on the stigma of another flower.
 U. The pollen tube enters the ovary.
- Select the option which arranges given steps into correct sequence.

- A. T → U → Q → S → R → P
 B. Q → T → U → R → S → P
 C. T → Q → U → S → R → P
 D. U → Q → T → S → R → P

38. Refer to the given pictures (i) and (ii) and select the correct option regarding them.

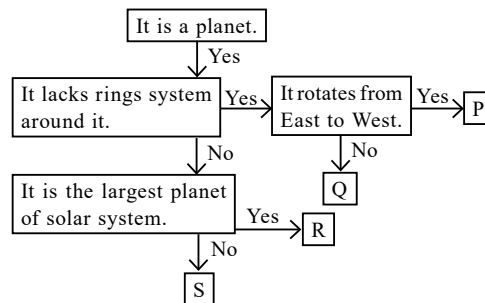


- A. Force Q and force Z represent the same force.
 B. Force P will be larger when the weight of the object is less.
 C. Force Z and force X act to decrease the speed of the object.
 D. Both A and B
39. Study the given diagram that shows how some land near a lake is used.



Which of the following is most likely to cause the lake to flood?

- A. Cutting down the forest
 B. Removing the cattle
 C. Using pesticides on the crops
 D. Growing crops
40. Refer to the given flow chart and select the option which identifies planets P–S.



- | | P | Q | R | S |
|----|---------|--------|---------|---------|
| A. | Neptune | Uranus | Mars | Venus |
| B. | Venus | Earth | Jupiter | Saturn |
| C. | Uranus | Saturn | Earth | Mercury |
| D. | Jupiter | Saturn | Mars | Venus |

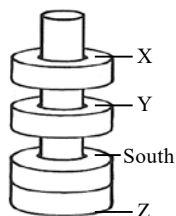
41. Read the given statements.

- (i) P was used for making Mount Rushmore.
 (ii) Q was used for making Taj Mahal.
 (iii) R was used for making Red Fort.
- Select the option which identifies P–R.

	P	Q	R
A.	Metamorphic rock	Igneous rock	Sedimentary rock
B.	Igneous rock	Metamorphic rock	Sedimentary rock
C.	Sedimentary rock	Igneous rock	Metamorphic rock
D.	Metamorphic rock	Sedimentary rock	Igneous rock

42. Study the given figure carefully. Identify the poles X, Y and Z.

	X	Y	Z
A.	North	South	South
B.	South	South	North
C.	South	North	North
D.	North	North	South



43. A fire extinguisher sprays foam or gas to cut off the supply of

- A. Fuel
C. Water
B. Air
D. Heat.

44. Refer to the given table and select the option that correctly identifies P, Q and R.

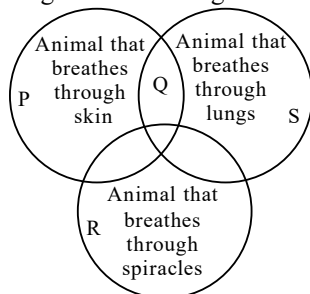
Characteristics	Animals		
	P	Q	R
It can swim.	Yes	Yes	Yes
It lays egg.	Yes	No	Yes
It possesses blubber.	Yes	Yes	No

	P	Q	R
A.	Dolphin	Whale	Penguin
B.	Polar bear	Dolphin	Duck
C.	Penguin	Polar bear	Duck billed platypus
D.	Duck	Penguin	Whale

45. Which part of brain will most likely affect our muscular coordination?
A. Cerebrum
B. Diencephalon
C. Medulla
D. Cerebellum

ACHIEVERS SECTION

46. Refer to the given Venn diagram.



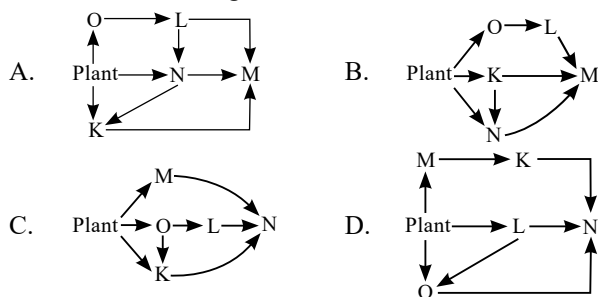
Select the option which correctly identifies P-S.

	P	Q	R	S
A.	Beetle	Leech	Parrot	Cockroach
B.	Frog	Lizard	Fish	Crow
C.	Earthworm	Frog	Beetle	Snake
D.	Amoeba	Crocodile	Lizard	Grasshopper

47. The given classification table shows five different organisms found in a community.

Herbivore	Carnivore	Omnivore
K	L	N
O	M	

Based on the information given in the table, which one of the following food webs is correct?



48. Radhika took three beakers and poured equal amounts of three different types of soils X, Y and Z into them as shown in the figure I.

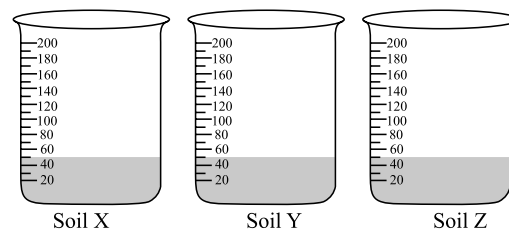


Figure I

She then poured equal amount of water into each beaker at the same time. Figure II shows the set-ups after the water has been added.

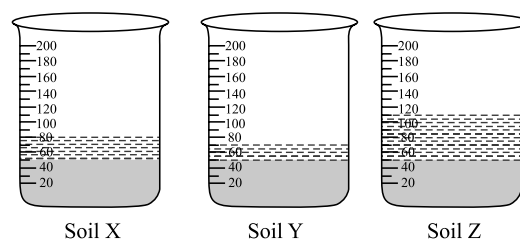
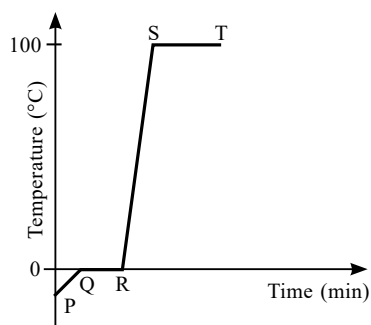


Figure II

Identify type of soils X, Y and Z and select the correct statement.

- A. X type of soil is mostly found in deserts whereas Y type of soil is mostly found on sea shore.
B. Soil X can hold adequate amount of nutrients.
C. Soil X is difficult to plough whereas soil Z can be ploughed easily.
D. Bacteria and other soil organisms cannot breathe inside the soil X.

49. Refer to the given graph representing changes in the states of water with temperature.

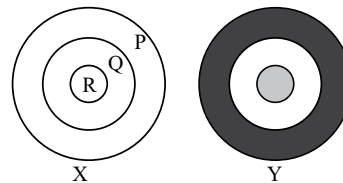


Based on the given graph which of the following statements are correct?

- (i) Heat is gained from P to T.
- (ii) There are different states of water along QR.
- (iii) Vaporisation occurs at P to Q.

- | | |
|------------------------|------------------------|
| A. (i) and (ii) only | B. (ii) only |
| C. (ii) and (iii) only | D. (i), (ii) and (iii) |

50. Figure X shows an object which is made of three different materials P, Q and R. Figure Y shows its shadow on a screen. Study these figures and select the option that correctly identifies any two of these materials.



- A. P - Tissue paper; Q - Wood
- B. Q - Metal; R - Cellophane paper
- C. P - Wood; R - Frosted glass
- D. P - Butter paper; R - Cardboard

SPACE FOR ROUGH WORK



Class 5



Set B

Year 2018

LOGICAL REASONING

1. If 'triangle' is coded as 9, 'square' is coded as 16, then 'circle' is coded as _____.
 A. 0 B. 16
 C. 100 D. 25

2. Find the missing number.

6	6	18	12	30
3	12	9	24	?

- A. 15 B. 60
 C. 10 D. 20
3. Which of the following will be the view of the given figure after $3\frac{1}{4}$ clockwise rotation?



- A. B.
 C. D.

4. Which of the following words can be formed from the letters of the given word?

SUPERSTITIOUS

- A. TUTION B. PURSUIT
 C. RESIDENT D. SUSPECT

5. If is related to in some way, then

in the same way _____ is related to .

- A. B.
 C. D.

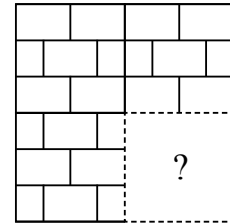
6. Which of the following Venn diagrams best represents the relationship amongst, "Doctors, Teachers and Parents"?

- A. B.
 C. D.

7. Five boys Sam, Rahul, Monu, Rohit and Raj took part in a race. Sam finished before Monu, Monu finished after Rohit. Rohit and Raj both finished after Rahul and Rahul finished after Sam. Who won the race?

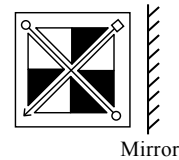
- A. Sam B. Monu
 C. Raj D. Rohit

8. Select a figure from the options which will replace the (?) to complete the pattern in the given figure.



- A. B.
 C. D.

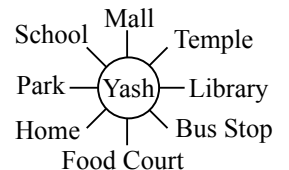
9. Select the correct mirror image of the given figure.



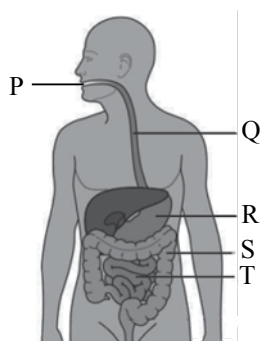
- A. B.
 C. D.

10. Yash is facing towards the Bus Stop now. If he takes $3\frac{1}{8}$ turn anti-clockwise, then he will be facing the _____.

- A. Temple B. Library
 C. Food Court D. Home



11. Refer to the given figure representing human digestive system.



Which of the following is correct regarding P–T?

- A. Digestive juices from liver and pancreas are poured into part R.
 B. Acid and enzymes breakdown all food components in parts P, Q, R, S and T.
 C. Digestive juices in part R break down the proteins present in the food into simpler forms.
 D. In part Q, insoluble starch changes into soluble sugar.

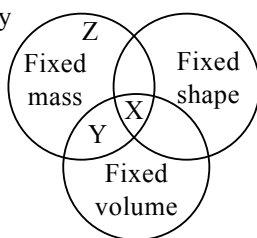
12. Total solar eclipse occurs during

- A. Full Moon phase
 B. New Moon phase
 C. Crescent Moon phase
 D. Gibbous Moon phase.

13. Refer to the given Venn diagram.

Which of the following correctly identifies diesel and coal?

- | | Diesel | Coal |
|----|--------|------|
| A. | X | Y |
| B. | Z | X |
| C. | Y | X |
| D. | Z | Y |



14. Refer to the given relationship.

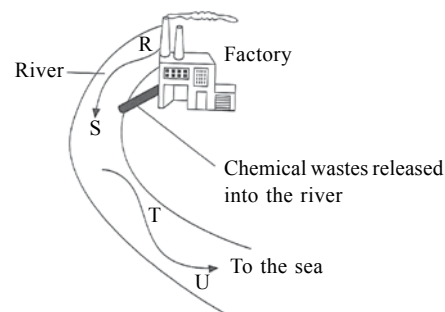
Platinum : Conglomerate : Coal

Select the option which correctly satisfies the same relationship.

- A. Mica : Diamond : Gneiss
 B. Silver : Shale : Petroleum
 C. Marble : Silver : Iron
 D. Aluminium : Copper : Gold
15. Planet X is closer to Sun than planet Y. It can be inferred that _____.
- A. Planet X has longer revolution period than planet Y
 B. Planet Y has longer revolution period than planet X

- C. Planet X has longer rotation period than planet Y
 D. Planet Y has longer rotation period than planet X

16. Look at the given picture carefully.



Some local residents wanted to collect water from the river for consumption at home. From which part of the river, R, S, T or U, will the water be safest to consume?

- A. R
 B. S
 C. T
 D. U

17. Read the given features of animal X.

- (i) Forelimbs are adapted for flying
 (ii) Body is covered with feathers
 (iii) Light and hollow bones
 (iv) Streamlined body

X could be

- A. Penguin
 B. Bat
 C. Krait
 D. Pigeon.

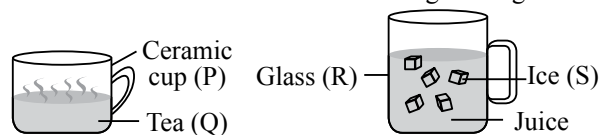
18. Refer to the given relationship.

Nutcracker : Pliers : Tweezers

Select the option which correctly satisfies the same relationship.

- A. Wheelbarrow : Crowbar : Tongs
 B. Scissors : Fishing rod : Claw hammer
 C. Bottle opener : Tongs : Scissors
 D. Crowbar : Bottle opener : Fishing rod

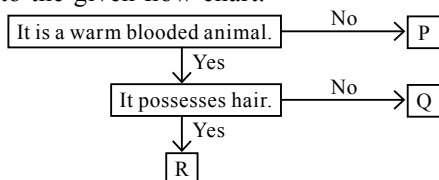
19. Aditya and Vidya went to the restaurant and ordered hot tea and chilled apple juice, respectively. The waiter served these as shown in the given figure.



Which of the following options correctly identifies heat changes in labelled parts (P–S)?

- | | P | Q | R | S |
|----|-----------|-----------|-----------|-----------|
| A. | Heat gain | Heat loss | Heat gain | Heat loss |
| B. | Heat gain | Heat loss | Heat loss | Heat gain |
| C. | Heat loss | Heat gain | Heat gain | Heat loss |
| D. | Heat gain | Heat gain | Heat loss | Heat gain |

20. Refer to the given flow chart.

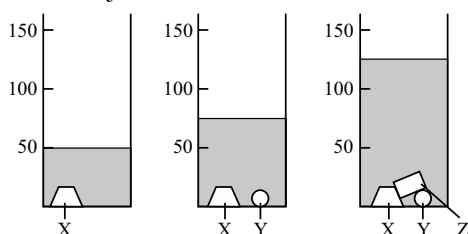


Select the option which correctly identifies P, Q and R.

P	Q	R
A. Parakeet	Snake	Lizard
B. Polar bear	Walrus	Eagle
C. Frog	Swallow	Hedgehog
D. Rabbit	Platypus	Kite

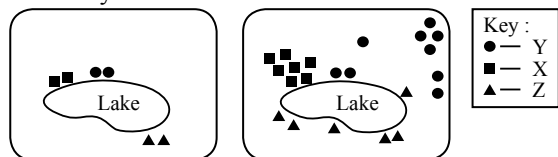
21. Amol has three objects, X, Y and Z. He puts X into a measuring cylinder with 30 mL of water. Then he puts Y and Z one by one into the same measuring cylinder as shown.

Which of the objects has/have a volume less than 30 mL?



- A. X only
B. Y only
C. X and Y only
D. X, Y and Z

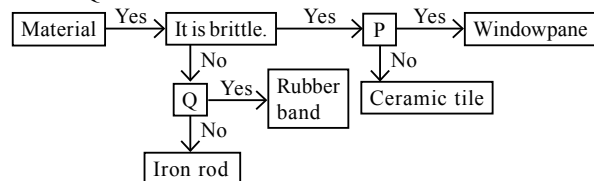
22. The given figures show a plot of land at two different time of years.



Which of the following could be pea and maple respectively?

Pea	Maple
A. Z	X
B. X	Z
C. Y	Z
D. X	Y

23. Refer to the given flow chart and identify properties P and Q.



P	Q
A. It is flexible.	It sinks in water.
B. It is transparent.	It is stretchable.
C. It conducts heat.	It absorbs water.
D. It is opaque.	It floats on water.

24. Which of the following will not dissolve in water?

A. Glucose	B. Vinegar
C. Butter	D. Carbon dioxide

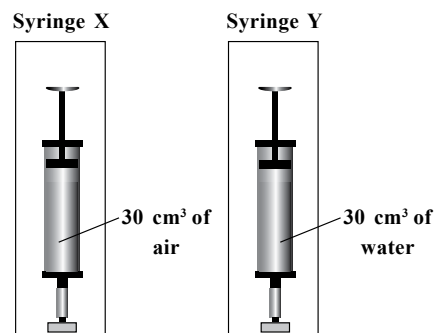
25. Which of the following is formed when volcanic lava cools down and hardens?

A. Basalt	B. Marble
C. Conglomerate	D. Gneiss

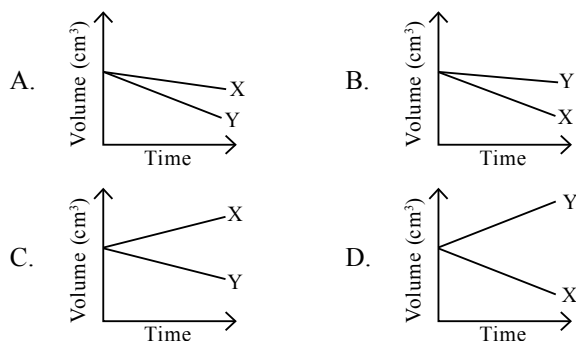
26. Swati made four groups each with two organisms with similar kind of body covering, but she made one mistake while pairing organisms in one of the groups. Select the incorrect group.

A. Crocodile, Snake	B. Parakeet, Emu
C. Turtle, Crab	D. Pigeon, Bat

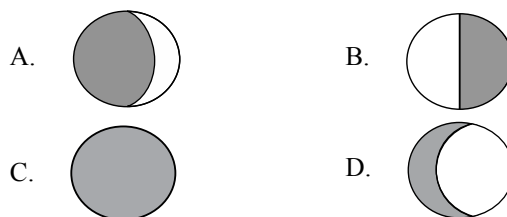
27. Refer to the given figure showing two syringes, X and Y. Syringe X contains 30 cm³ of air while syringe Y contains 30 cm³ of water. The ends of both the syringes are sealed and the plungers are then pushed in.



Which of the following graphs correctly represents the volume of air in syringe X and volume of water in syringe Y as the plunger is pushed in?



28. If a Full Moon appeared on November 1 then which of the following shapes of Moon will be observed on November 7?



29. Rashmi wants to do her laundry. Which is the most appropriate condition of day if she wants her wet laundry to get dry in shortest time?

	Windy	Sunny	Humidity
A.	Yes	No	High
B.	Yes	Yes	Low
C.	No	Yes	High
D.	No	No	High

30. Refer to the given list of planets.

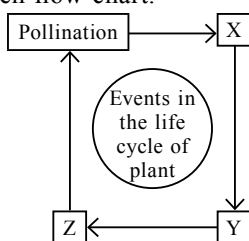
(i) Uranus	(ii) Jupiter
(iii) Neptune	(iv) Mars
(v) Earth	

Select the option which arranges these planets in ascending order regarding their number of natural satellites.

- A. (i) < (iii) < (v) < (ii) < (iv)
 B. (iv) < (ii) < (v) < (iii) < (i)
 C. (iv) < (iii) < (i) < (v) < (ii)
 D. (v) < (iv) < (iii) < (i) < (ii)
31. Which of the following is a non-flowering plant?
- A. *Hydrilla*
 B. Bamboo
 C. Pine
 D. Cactus

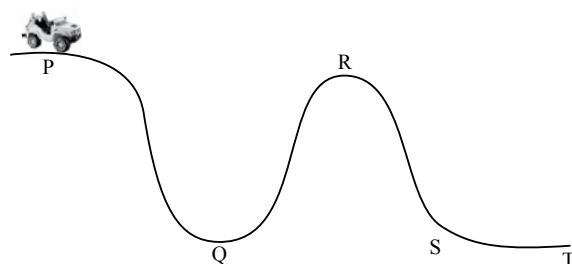
32. Shred a paper in tiny pieces. Take a comb and comb your hair. Now bring the comb closer to the paper pieces. What will you observe?
- A. The paper pieces will get repelled due to magnetic force.
 B. The paper pieces will get repelled due to electrostatic force.
 C. The paper pieces will get attracted and stick to the comb due to electrostatic force.
 D. The paper pieces will get attracted and stick to the comb due to frictional force.

33. Select the option which correctly identifies X, Y and Z in the given flow chart.



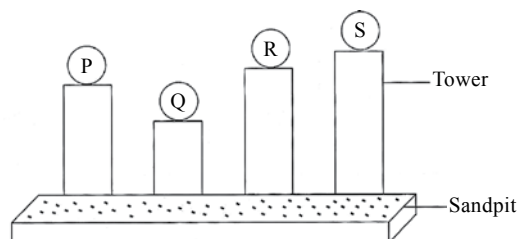
X	Y	Z
A. Germination	Fertilisation	Dispersal
B. Dispersal	Fertilisation	Germination
C. Fertilisation	Dispersal	Germination
D. Germination	Dispersal	Fertilisation

34. A toy car was placed at the top of a slope and then released. Between which points on the slope did the kinetic energy change to potential energy?



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

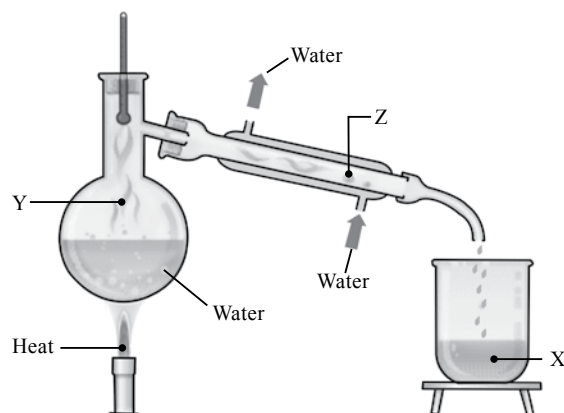
35. Study the given set up carefully.



Four identical balls P, Q, R and S are dropped from the towers of different heights onto the sandpit. Which ball will create the deepest mark on the sand?

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

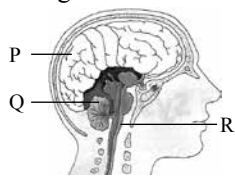
36. Refer to the given figure representing process of distillation.



At which point the temperature will be 100°C?

- A. Y and Z only
 B. Y only
 C. X and Z only
 D. X, Y and Z

37. Refer to the given figure.



Which of the given labelled parts is the centre of intelligence (X) and controlling involuntary actions of body (Y)?

- | | X | Y |
|----|---|---|
| A. | P | R |
| B. | R | P |
| C. | P | Q |
| D. | Q | P |

38. Refer to the given relationship based on breathing organs.

Honeybee : Whale : Guppy

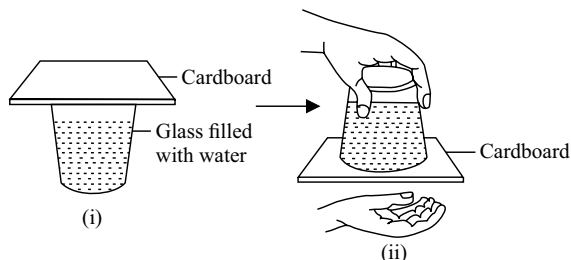
Select the option which satisfies the same relationship.

- A. Beetle : Crane : Heron
 B. Earthworm : Dolphin : Leech
 C. Moth : Seal : Shark
 D. Cockroach : Seahorse : Newt

39. Unscramble the given letter groups to get the name of fibre which is obtained from mammal.

- A. LENIN
 B. SKLI
 C. WOLO
 D. CTOTON

40. Refer to the given figures.



Cardboard in the given situation (ii) does not fall because

- A. The wet cardboard is stuck to the glass
 B. The force of gravity pulling the cardboard is negligible
 C. Atmospheric pressure acts on the cardboard
 D. All of these

41. In which of the following parts of the human alimentary canal does digestion of proteins take place?

- (i) Buccal cavity (ii) Oesophagus
 (iii) Small intestine (iv) Large intestine
 (v) Stomach

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

42. Baby of X lives in water and breathes through its gills and adult X can live both on land as well as in water and breathes through its lungs on land. What is X?

- A. Whale B. Crocodile
 C. Tortoise D. Frog

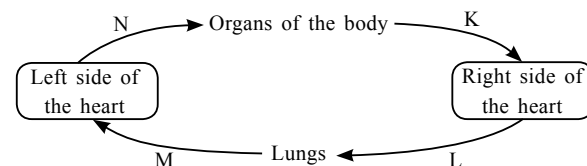
43. Read the given paragraph.

X is a plant that does not bear flowers and fruits whereas Y is a plant that eats insects. Both X and Y can make their own food by photosynthesis.

Select the option which correctly identifies X and Y.

- | X | Y |
|-------------|---------------|
| A. Fern | Pitcher plant |
| B. Mushroom | Dodder |
| C. Cactus | Fir |
| D. Bamboo | Venus flytrap |

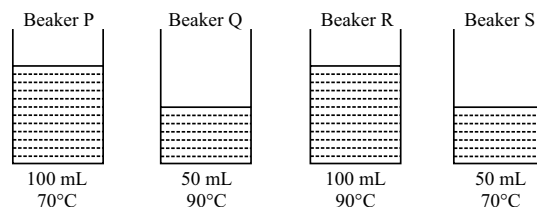
44. The given figure represents blood flow through the human body.



At which labelled stages (K–N) does the blood contain most of the carbon dioxide?

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

45. The diagram below shows four beakers P, Q, R and S containing different volumes of water at different temperatures.



Which one of the following statements is true?

- A. Beaker P has the most heat energy.
 B. Beaker R has more heat energy than beaker Q.
 C. Beaker S has more heat energy than beaker R.
 D. Beaker P and beaker S have the same amount of heat energy.

ACHIEVERS SECTION

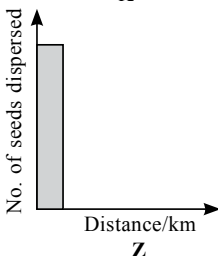
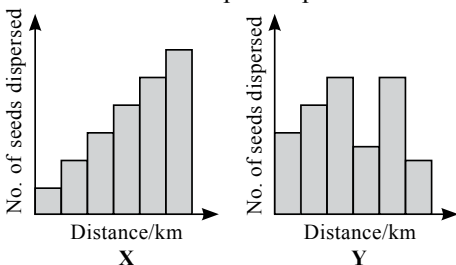
46. Refer to the given table.

Characteristics	P	Q	R	S
Lays eggs	×	✓	✓	✓
Possesses hair	✓	✓	×	×
Breathes through lungs	✓	✓	✓	✓
Possesses flipper	✓	×	✓	×

Select the option which correctly identifies P-S.

	P	Q	R	S
A.	Platypus	Walrus	Seal	Hedgehog
B.	Walrus	Penguin	Turtle	Hippopotamus
C.	Seal	Platypus	Penguin	Parrot
D.	Polar bear	Penguin	Turtle	Tortoise

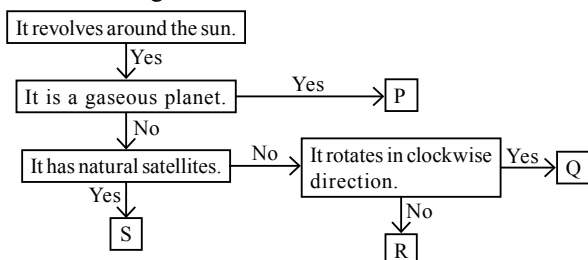
47. Three different types of plants X, Y and Z were selected by Pratima who wanted to document their methods of seed dispersal. The graphs below show the approximate number of seedlings found at various distances from the parent plant.



Select the option which correctly identifies X, Y and Z plants.

	X	Y	Z
A.	Coconut, Lotus	Balsam, Urena	Castor, Cherry
B.	Hiptage, Acer	Xanthium, Urena	Balsam, Pea
C.	Acer, Urena	Balsam, Xanthium	Pea, Castor
D.	Drumstick, Coconut	Xanthium, Acer	Pea, Lotus

48. Refer to the given flow chart.



Select the correct option regarding P, Q, R and S.

- P could be the hottest planet whereas Q could be the coldest planet of solar system.
- R could be the smallest planet whereas S could be the red planet.
- P could be the largest planet whereas R is the planet known as morning star and evening star.
- Q has rings around it whereas S has no ring system.

49. Metal strips P, Q, R and S are joined together to form three bimetallic strips as shown in the table. The observations are recorded before and after three bimetallic strips were heated.

Before heating	After heating

Which of the following is the correct order regarding the expansion of metals?

- $S < R < P < Q$
- $R < S < P < Q$
- $Q < P < R < S$
- $S < Q < R < P$

50. Two friends Shruti and Surbhi visited a general physician for their respective deficiency diseases. Doctor examined them and prepared a chart as given in the table to keep a record of their illness.

Name of the patient	Symptoms of disease	Preventive measures
Shruti	Pain in bone of arms and legs	Consumption of milk, milk products, fish and eggs
Surbhi	Difficulty in swallowing and breathing	Consumption of iodised salt and sea food

Study the given chart carefully and select the correct option regarding this.

- Shruti is suffering from a disease which can spread from an infected person to a healthy person.
- Surbhi is suffering from deficiency of a mineral that is required for formation of haemoglobin.
- Shruti is suffering from a disease which can be eradicated by vaccination.
- Surbhi is suffering from mineral deficiency disease whereas Shruti is suffering from vitamin deficiency disease.

SPACE FOR ROUGH WORK

ANSWER KEYS

NSO 2014

SET A

1. (C)	2. (B)	3. (C)	4. (A)	5. (B)	6. (A)	7. (A)	8. (B)	9. (C)	10. (B)
11. (B)	12. (C)	13. (D)	14. (B)	15. (C)	16. (B)	17. (B)	18. (D)	19. (B)	20. (A)
21. (B)	22. (C)	23. (B)	24. (C)	25. (C)	26. (B)	27. (C)	28. (C)	29. (C)	30. (C)
31. (B)	32. (D)	33. (C)	34. (B)	35. (B)	36. (B)	37. (A)	38. (B)	39. (B)	40. (B)
41. (D)	42. (B)	43. (B)	44. (C)	45. (B)	46. (B)	47. (D)	48. (B)	49. (C)	50. (D)

SET B

1. (A)	2. (A)	3. (B)	4. (D)	5. (B)	6. (D)	7. (A)	8. (B)	9. (C)	10. (C)
11. (C)	12. (C)	13. (D)	14. (C)	15. (D)	16. (A)	17. (C)	18. (C)	19. (B)	20. (A)
21. (D)	22. (D)	23. (A)	24. (C)	25. (A)	26. (A)	27. (B)	28. (D)	29. (D)	30. (D)
31. (A)	32. (D)	33. (B)	34. (B)	35. (A)	36. (B)	37. (D)	38. (B)	39. (C)	40. (C)
41. (C)	42. (B)	43. (A)	44. (B)	45. (C)	46. (A)	47. (C)	48. (C)	49. (B)	50. (C)

NSO 2015

SET 1

1. (D)	2. (B)	3. (A)	4. (D)	5. (D)	6. (C)	7. (D)	8. (A)	9. (C)	10. (D)
11. (B)	12. (B)	13. (B)	14. (C)	15. (D)	16. (D)	17. (A)	18. (B)	19. (A)	20. (D)
21. (C)	22. (D)	23. (A)	24. (B)	25. (B)	26. (A)	27. (B)	28. (B)	29. (D)	30. (D)
31. (B)	32. (C)	33. (B)	34. (B)	35. (D)	36. (C)	37. (B)	38. (D)	39. (A)	40. (D)
41. (B)	42. (D)	43. (A)	44. (C)	45. (C)	46. (D)	47. (B)	48. (A)	49. (B)	50. (B)

SET 2

1. (D)	2. (B)	3. (D)	4. (B)	5. (A)	6. (D)	7. (B)	8. (C)	9. (A)	10. (A)
11. (C)	12. (D)	13. (A)	14. (C)	15. (C)	16. (D)	17. (C)	18. (B)	19. (D)	20. (D)
21. (B)	22. (C)	23. (B)	24. (A)	25. (D)	26. (C)	27. (D)	28. (C)	29. (D)	30. (C)
31. (D)	32. (D)	33. (C)	34. (D)	35. (B)	36. (A)	37. (C)	38. (C)	39. (D)	40. (B)
41. (A)	42. (D)	43. (B)	44. (B)	45. (B)	46. (D)	47. (A)	48. (B)	49. (A)	50. (C)

NSO 2016

SET A

1. (B)	2. (A)	3. (A)	4. (C)	5. (B)	6. (A)	7. (B)	8. (D)	9. (C)	10. (B)
11. (D)	12. (A)	13. (B)	14. (B)	15. (C)	16. (C)	17. (D)	18. (C)	19. (B)	20. (C)
21. (C)	22. (A)	23. (B)	24. (D)	25. (B)	26. (D)	27. (B)	28. (D)	29. (D)	30. (A)
31. (A)	32. (B)	33. (D)	34. (D)	35. (C)	36. (B)	37. (A)	38. (D)	39. (C)	40. (A)
41. (B)	42. (D)	43. (B)	44. (B)	45. (B)	46. (B)	47. (B)	48. (B)	49. (B)	50. (D)

SET B

1. (C)	2. (A)	3. (D)	4. (A)	5. (C)	6. (C)	7. (C)	8. (C)	9. (A)	10. (B)
11. (B)	12. (B)	13. (D)	14. (C)	15. (C)	16. (B)	17. (B)	18. (A)	19. (A)	20. (B)
21. (B)	22. (A)	23. (C)	24. (A)	25. (B)	26. (C)	27. (C)	28. (D)	29. (D)	30. (D)
31. (B)	32. (B)	33. (A)	34. (C)	35. (D)	36. (D)	37. (B)	38. (C)	39. (A)	40. (B)
41. (A)	42. (C)	43. (B)	44. (C)	45. (A)	46. (D)	47. (D)	48. (D)	49. (C)	50. (B)

NSO 2017

SET A

1. (B)	2. (D)	3. (D)	4. (D)	5. (A)	6. (B)	7. (B)	8. (C)	9. (D)	10. (A)
11. (D)	12. (B)	13. (B)	14. (B)	15. (B)	16. (A)	17. (D)	18. (B)	19. (B)	20. (B)
21. (C)	22. (B)	23. (B)	24. (B)	25. (C)	26. (B)	27. (A)	28. (D)	29. (A)	30. (B)
31. (B)	32. (A)	33. (D)	34. (C)	35. (A)	36. (B)	37. (C)	38. (C)	39. (D)	40. (D)
41. (D)	42. (C)	43. (B)	44. (C)	45. (A)	46. (C)	47. (B)	48. (D)	49. (D)	50. (B)

SET B

1. (D)	2. (C)	3. (B)	4. (C)	5. (A)	6. (A)	7. (B)	8. (A)	9. (C)	10. (D)
11. (B)	12. (C)	13. (A)	14. (B)	15. (C)	16. (B)	17. (A)	18. (D)	19. (D)	20. (B)
21. (C)	22. (B)	23. (C)	24. (C)	25. (B)	26. (C)	27. (D)	28. (C)	29. (B)	30. (D)
31. (A)	32. (B)	33. (A)	34. (C)	35. (D)	36. (C)	37. (D)	38. (A)	39. (C)	40. (B)
41. (B)	42. (B)	43. (B)	44. (C)	45. (C)	46. (D)	47. (A)	48. (B)	49. (B)	50. (D)

NSO 2018

SET A

- | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (B) | 2. (B) | 3. (C) | 4. (A) | 5. (A) | 6. (B) | 7. (A) | 8. (A) | 9. (C) | 10. (D) |
| 11. (A) | 12. (A) | 13. (B) | 14. (A) | 15. (D) | 16. (C) | 17. (A) | 18. (A) | 19. (D) | 20. (C) |
| 21. (A) | 22. (D) | 23. (C) | 24. (A) | 25. (A) | 26. (C) | 27. (B) | 28. (A) | 29. (C) | 30. (B) |
| 31. (D) | 32. (C) | 33. (A) | 34. (C) | 35. (C) | 36. (C) | 37. (C) | 38. (A) | 39. (A) | 40. (B) |
| 41. (B) | 42. (C) | 43. (B) | 44. (C) | 45. (D) | 46. (C) | 47. (B) | 48. (B) | 49. (A) | 50. (C) |

SET B

- | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (A) | 2. (A) | 3. (A) | 4. (B) | 5. (B) | 6. (B) | 7. (A) | 8. (A) | 9. (A) | 10. (B) |
| 11. (C) | 12. (B) | 13. (C) | 14. (B) | 15. (B) | 16. (A) | 17. (D) | 18. (A) | 19. (B) | 20. (C) |
| 21. (C) | 22. (D) | 23. (B) | 24. (C) | 25. (A) | 26. (D) | 27. (B) | 28. (B) | 29. (B) | 30. (D) |
| 31. (C) | 32. (C) | 33. (C) | 34. (B) | 35. (D) | 36. (B) | 37. (A) | 38. (C) | 39. (C) | 40. (C) |
| 41. (A) | 42. (D) | 43. (A) | 44. (B) | 45. (B) | 46. (C) | 47. (B) | 48. (B) | 49. (C) | 50. (D) |