



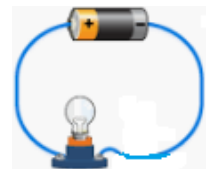
ISO SCIENCE OLYMPIAD

Sample Paper

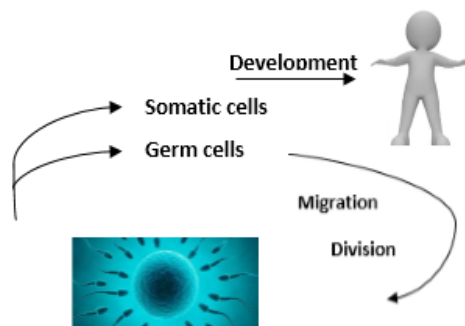
Basic: (3 Points)

- X is the part of a cell that carries information that controls the characteristics that are passed from one generation to the next generation. Identify X.
 (A) Chloroplast (B) Cell membrane (C) Cytoplasm (D) Nucleus
- _____ helps to maintain a constant body temperature in our body.
 (A) Water (B) Roughage (C) Vitamins (D) Energy- Giving Food
- The criss - cross lines on the leaves show its _____.
 (A) Stem (B) Venation (C) Design (D) Neither (A) nor (B)

- Which of the following statement is correct about the circuit shown in the figure?
 (A) The filament of the bulb is broken
 (B) There is a break in the path of the current
 (C) It will not glow as no current passes through its filament
 (D) All of the above



- The diagram shows the role of germ cells and somatic cells in human reproduction. Which of the following is correct about the germ cells?

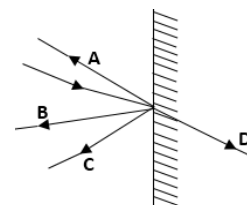


- Genetic variation can be inherited from one generation to another through germ cell
- Germ cells take part in reproduction
- Germ cells are found in plants and animals
- Both (A) and (B)

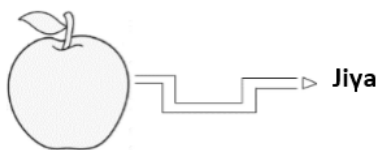
Foundation: (4 Points)

6. The diagram below shows a ray of light shining on a mirror. Which ray correctly represents the ray that is reflected from the mirror?

(A) A
(B) B
(C) C
(D) D



7. Look at the diagram shown here carefully. What is the least number of mirrors of mirrors Jiya needs to help her to see the apple?



(A) 1 (B) 2 (C) 3 (D) 4

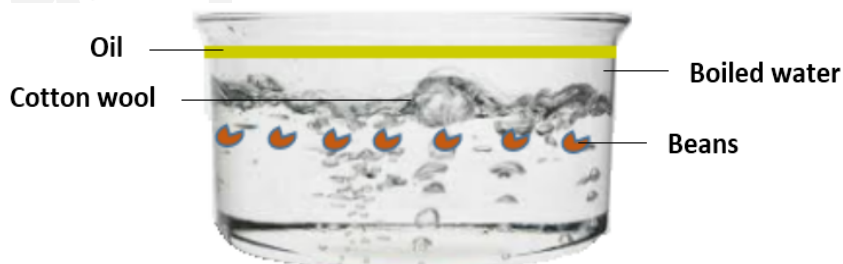
8. Which of the following statement is incorrect about D. D. T.?

(A) It has been widely used as a chemical pesticide for farming
(B) It degrades very slowly and gets accumulated from one trophic level to another
(C) Its high concentration causes adverse effect on living systems
(D) None of the above

9. Some radioactive waste leaked out from a landfill and contaminated a river. The river water was used to water plants in a nearby farm. If we examined the stem of those plants where you would expect to find radioactive substances?

(A) Phloem tubes (B) Xylem tubes
(C) In both xylem and phloem tubes (D) None of them

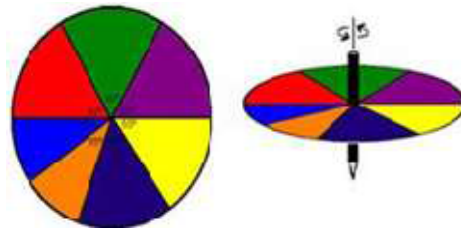
10. The beans shown in the figure did not germinate. What is the reason for this?



(A) There was no water (B) There was no warmth
(C) There was no oxygen (D) There were no nutrients

Exploration: (5Points)

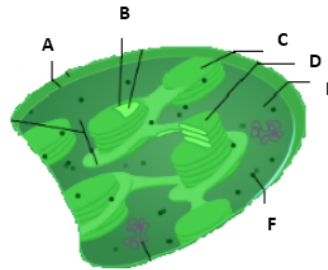
11. i. Collect the materials that you need.
- ii. Glue the piece of paper to the cardboard.
- iii. Cut the piece of paper and cardboard into equal size circles.
- iv. Colour each of the seven sections a different colour.
- v. Divide the circle into seven equal triangles.



Which of the following shows the correct order of the steps?

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

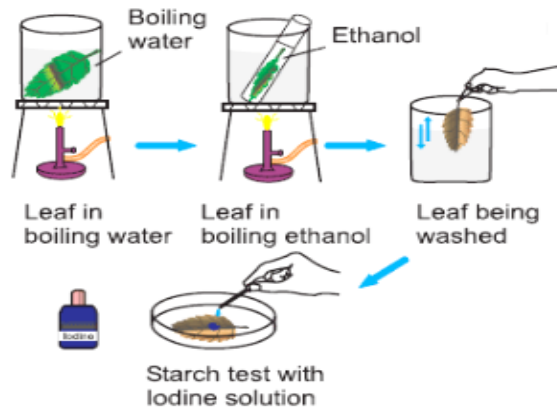
12. Study the plant cell shown below.



Which of the following is correct match on the basis of the given figure?

- (A) The region where chromosomes can be found- F
- (B) The part which gives the cell its rigid shape- B
- (C) Controls the movement of substances in and out of a cell- A
- (D) The region where light energy is converted into chemical energy- E

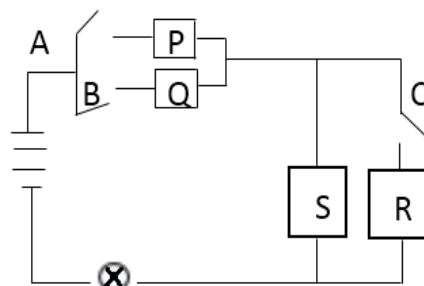
13. Observe the experiment shown here with a leaf of a plant and answer the following question.



The above test demonstrates that

- (A) Leaves get the starch from chlorophyll
- (B) Starch is essential for the presence of chlorophyll
- (C) Iodine reacts with leaf and forms blue black color
- (D) Leaves make their food as starch

14. P, Q R and S are objects placed in the circuit shown below. A, B and C are switches.



The table shows what happen when the switches are closed.

Switch (es) closed	Bulb is lit
A	Yes
B	No
C	No
A and C	Yes

Choose the correct option for P, Q, R and S.

- (A) Object P- conductor (B) Object Q- Insulator
 (C) Object R- cannot tell (D) All of the above

15. The below figure makes the sentence

OWS AKE OPAQ UE O BJEC TS M SHAD
 OPAQ UE O BJEC TS M AKE SHAD OWS

- (A) Shadows make opaque objects (B) Objects make shadows opaque
 (C) Opaque objects make shadows (D) None of the above



ANSWER KEY

1-D 2-A 3-B 4-D 5-D 6-C 7-D 8-D
 9-B 10-C 11-A 12-A 13-D 14-D 15-C