



# SAMPLE PAPER

International Olympiad Foundation

EXCELLENCE IN EDUCATION

International Olympiad Foundation

14+

OLYMPIADS

MCQ

FORMAT

0

NEGATIVE MARKS

OLYMPIAD

## Science Olympiad

International Olympiad Foundation (IOF) · www.iof.education

CLASS / GRADE

Class 6

SUBJECT

IFSO

DURATION

60 Min

MAX MARKS

50

GENERAL INSTRUCTIONS

- All questions are Multiple Choice Questions (MCQs) with options A, B, C, D, E
- Each correct answer carries 1 mark. No negative marking for wrong answers.
- Rough work should be done separately. Do not write on question paper.

PAPER HIGHLIGHTS

- **Multiple Choice Questions (MCQ)**  
Five options per question (A, B, C, D, E). Select the single most appropriate answer.
- **No Negative Marking**  
1 mark per correct answer. Zero deductions — attempt every question.
- **Conducted by IOF**  
International Olympiad Foundation — fostering excellence among students across India.

SUBJECTS

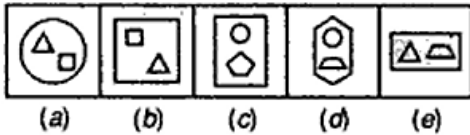
- Cyber English Entrepreneurship Mathematics Commerce Economics GK & Current Affairs Science Western Music  
Sanskrit Indian Music Hindi Reasoning & Aptitude Spell Talent

ALL IOF OLYMPIAD PROGRAMMES

<b>IFCO</b> International Foundation Cyber Olympiad	<b>IFEOL</b> International Foundation English Olympiad	<b>IFEnO</b> International Foundation Entrepreneurship Olympiad	<b>IFMO</b> International Foundation Mathematics Olympiad	<b>ICS</b> Institute of Company Secretaries of India Commerce Olympiad	<b>IFEcO</b> International Foundation Economics Olympiad	<b>IFGCO</b> International Foundation General Knowledge & Current Affairs Olympiad
<b>IFSO</b> International Foundation Science Olympiad	<b>IFWMuO</b> International Foundation Western Music Olympiad	<b>IFSaO</b> International Foundation Sanskrit Olympiad	<b>IFIMuO</b> International Foundation Indian Music Olympiad	<b>IFHO</b> International Foundation Hindi Olympiad	<b>IFRAO</b> International Foundation Reasoning & Aptitude Olympiad	<b>IFSTO</b> International Foundation Spell Talent Olympiad

Q1. Choose the odd one out.

[+1]  
[-0]



- A. (a)
- B. (b)
- C. (c)
- D. (d)
- E. (e)

Q2. Arrange the given words in alphabetical order and choose the one that comes in the middle.

[+1]  
[-0]

Haste, Haphazard, Host, Hang, Handkerchief

- A. Haste
- B. Haphazard
- C. Host
- D. Hang
- E. Handkerchief

Q3. A man walks 30 metres towards south. Then, turning to his right, he walks 30 metres. Then, turning to his left, he walks 20 metres. Again, he turns to his left and walks 30 metres. How far is he from his initial position?

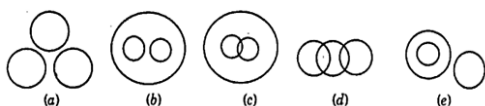
[+1]  
[-0]

- A. 20 metres
- B. 50 metres
- C. 60 metres
- D. 80 metres
- E. None of these

Q4. Which is the most suitable Venn diagram among the following which represents relationship among

[+1]  
[-0]

Flowers, Clothes, White



- A. (a)
- B. (b)
- C. (c)
- D. (d)
- E. (e)

Q5. In a row of girls, Shilpa is eighth from the left and Reena is seventeenth from the right. If they interchange their positions, Shilpa becomes fourteenth from the left. How many girls are there in the row?

[+1]  
[-0]

- A. 25
- B. 27
- C. 30
- D. 32
- E. None of these

Q6. Choose the correct option to continue the series.

[+1]  
[-0]



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

Q7. Deepak is brother of Ravi, Rekha is sister of Atul. Ravi is son of Rekha. How is Deepak related to Rekha?

[+1]  
[-0]

- A. Son
- B. Brother
- C. Nephew
- D. Father
- E. None of these

Q8. In a certain code language, '123' means 'hot filtered coffee', '356' means 'very hot day' and '589' means 'day and night'. Which digit stands for 'very'?

[+1]  
[-0]

- A. 9
- B. 5
- C. 8
- D. 2
- E. 6

Q9. If CFOPQ is the code for FIRST then find the code for AVOID?

[+1]  
[-0]

- A. YLSFA
- B. XSLAF
- C. XSLFA
- D. YLFSA
- E. None of these

Q10. Choose the odd one out.

[+1]  
[-0]

MOQ , CEG , SQO , UWY

- A. MOQ
- B. CEG
- C. SQO
- D. UWY
- E. None of these

Q11. Choose the odd one out.

[+1]  
[-0]

- A. Aphid : Paper
- B. Moth : Wool
- C. Termite : Wood
- D. Locust : Plant
- E. None of these

**Q12.** Choose the correct option to continue the series.

[+1]  
[-0]

3, 7, 15, 27, 43, ?

- A. 60
- B. 61
- C. 62
- D. 63
- E. None of these

**Q13.** The missing letters are given in the proper sequence as one of the option. Choose the correct option.

[+1]  
[-0]

\_op\_mo\_n\_ \_pnmop\_

- A. mpnmop
- B. mnpmon
- C. mnompn
- D. mnpomn
- E. None of these

**Q14.** Choose the word which will complete the second pair in the same way as first pair.

[+1]  
[-0]

Conference : Chairman :: Newspaper : ?

- A. Reporter
- B. Distributor
- C. Printer
- D. Editor
- E. None of these

**Q15.** Select the lettered pair that has the same relationship as the original pair of words.

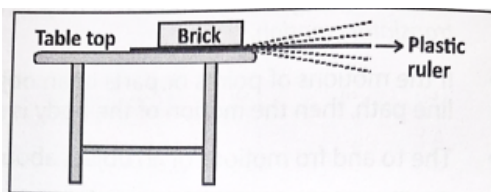
[+1]  
[-0]

Sigh : Relief

- A. Tear : Joy
- B. Trembling : Fear
- C. Carelessness : Accident
- D. Sweat : Hot
- E. None of these

**Q16.** Which type of motion is represented by the plastic ruler shown below?

[+1]  
[-0]

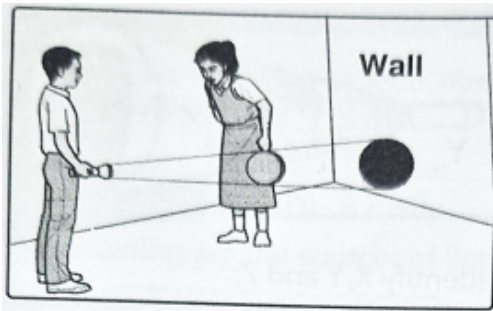


- A. Circular
- B. Translatory
- C. Rotatory
- D. Vibratory
- E. None of these

Q17. Observe the diagram given below.

[+1]  
[-0]

What is proved from the given arrangement?



- A. Light can be refracted
- B. Light can be reflected
- C. Light can be blocked
- D. Light travels faster than sound
- E. None of these

Q18. Leela connected two bulbs across two cells in a simple circuit. What should Leela do to make the bulbs glow dimmer?

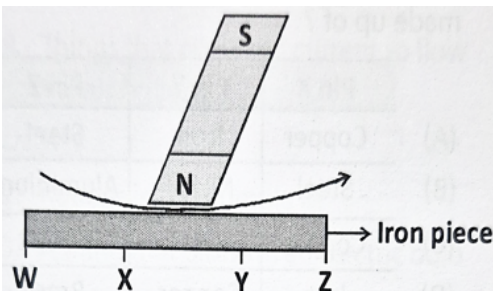
[+1]  
[-0]

- A. Replace one cell with a piece of chalk.
- B. Replace one cell with a piece of wire.
- C. Replace one bulb with a piece of wire.
- D. Replace one bulb with another cell.
- E. None of these

Q19. Manish magnetised a piece of iron marked W, X, Y and Z using the stroking method as shown in the figure.

[+1]  
[-0]

Which of these parts of the iron piece will become the north-seeking pole?



- A. W
- B. X
- C. Y
- D. Z
- E. None of these

**Q20.** Harish observed the properties of 3 substances X, Y, and Z and recorded his observation as given in the table below. ( Scroll down to view the complete question )

[+1]  
[-0]

Property	X	Y	Z
Occupies space	Yes	Yes	Yes
Has a definite shape	No	Yes	No
Has a definite volume	No	Yes	Yes
Can be compressed	Yes	No	No

Which of the following is the correct representation of X, Y and Z

	X	Y	Z
a	Magnet	Oxygen	Shampoo
b	Nitrogen	Petrol	Coin
c	Carbon dioxide	Rock	Syrup
d	Tooth paste	Pin	Hydrogen

- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q21.** Study the information given below

[+1]  
[-0]

- Some substances are made up of two or more elements combined together chemically
- Properties of these substances are different from the elements that make them.
- This substance cannot be broken down by physical methods.

Which of the following substances has the properties listed above?

- A. Iodine
- B. Calcium
- C. Air
- D. Sugar
- E. None of these

**Q22.** A glass filled with ice cubes is kept on a table. After sometime water drops were observed sticking to the outside of the glass. Which of these sentences is TRUE of this phenomenon?

[+1]  
[-0]

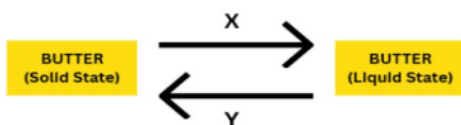
- (i) This phenomenon is known as condensation.
- (ii) This proves that water vapour is present in air.
- (iii) This is also observed when a hot object is cooked in the open

- A. Only (i) and (ii)
- B. Only (ii) and (iii)
- C. Only (i) and (iii)
- D. (i), (ii) and (iii)
- E. None of these

**Q23.** Given below is a change that occurs in butter.

[+1]  
[-0]

Identify X and Y that cause change in the state of butter.

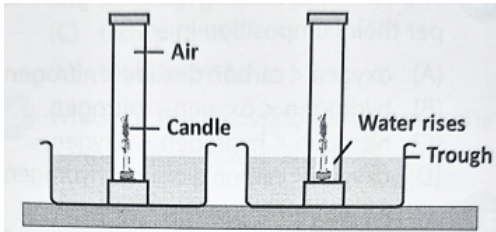


- A. X – Heat lost , Y – Heat gained
- B. X – Heat gained, Y – Heat lost
- C. X – Release of energy, Y – Absorption of energy
- D. X – Decrease in temperature, Y – Increase in temperature
- E. None of these

**Q24.** In the given figure, a burning candle is kept in the trough containing water. It is put off after some time when covered by an inverted gas jar.

[+1]  
[-0]

What can be concluded from the above activity?



- A. Oxygen is 1/5th the volume of air.
- B. The ratio of oxygen and nitrogen in air is 1:4
- C. Oxygen is required for burning the candle.
- D. All of the above
- E. None of these

**Q25.** Skeletal and muscular systems work together to enable the body to move. What is the main function of the skeletal system in relationship to the muscular system?

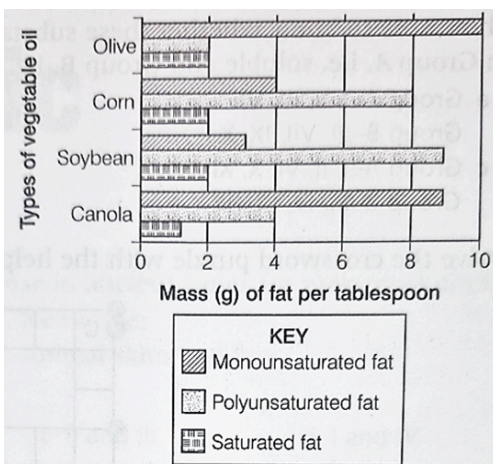
[+1]  
[-0]

- A. To provide attachment points for muscles.
- B. To assist muscles in growth and development.
- C. To produce muscle cells inside the bone marrow.
- D. To produce enzymes that help muscles repair themselves.
- E. None of these

**Q26.** Observe the graph given below and answer the question that follows.

[+1]  
[-0]

Which of the given type of vegetable oil is good for our health?



- A. Corn
- B. Soyabean
- C. Olive
- D. Canola
- E. None of these

**Q27.** Steps for the production of silk are given below in an unsequenced manner. Arrange them in a proper sequence.

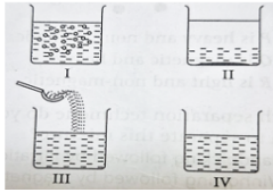
[+1]  
[-0]

- I. Eggs are warmed to a suitable temperature for the larvae to hatch from eggs.
- II. Fibres are taken out from the cocoons.
- III. After 25 to 30 days, the caterpillars stop eating and start spinning cocoons.
- IV. The Larvae / caterpillars or silkworms are kept in clean trays along with freshly chopped mulberry leaves.
- V. Female silk moths lay eggs.
- VI. Cocoons are kept under the sun or boiled in water.

- A. I, II, III, IV, V, VI
- B. V, I, IV, III, VI, II
- C. V, IV, I, III, VI, II
- D. V, I, IV, II, III, VI
- E. None of these

**Q28.** Consider the following figures. ( Scroll down to view complete question )

[+1]  
[-0]



The correct label for I, II, III and IV in the above shown figure is

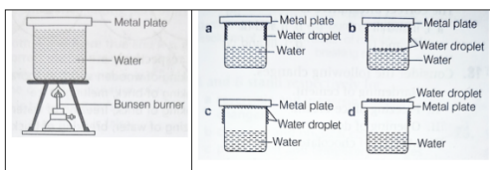
	I	II	III	IV
a	Suspension	Sediment	Solvent	Solution
b	Suspension	Sediment	Solute	Solution
c	Sediment	Suspension	Solution	Solute
d	Suspension	Sediment	Solute	Solvent

- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q29.** Vidya took a beaker filled with water. She cover this beaker with a metal plate. Then she boiled the water with the help of a Bunsen burner as shown below.

[+1]  
[-0]

She then removed the burner and left the beaker as such. After a few minutes, what was her observation?



- A. (a)
- B. (b)
- C. (c)
- D. (d)
- E. None of these

Q30. Which of the following is incorrect?

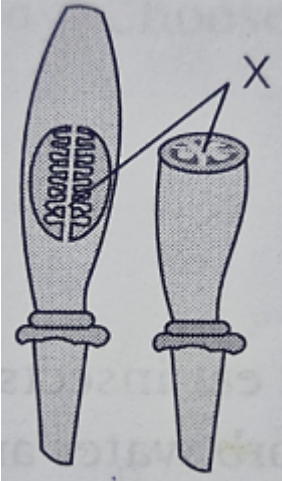
[+1]  
[-0]

	Micronutrients	Macronutrients
a	Magnesium, boron, Iron	Hydrogen, Carbon, Phosphorous
b	Hydrogen, Carbon, Magnesium	Calcium, Zinc
c	Magnesium, Iron	Hydrogen, Carbon, Chlorine
d	Nitrogen, Sulphur, Iron	Hydrogen, Nitrates, Boron

- A. a
- B. b
- C. c
- D. d
- E. None of these

Q31. Rohit have taken the lowermost and swollen part of the pistil and cut it longitudinally and transversely. Now, it looks like as shown in the figure given below. Name the part labelled as X?

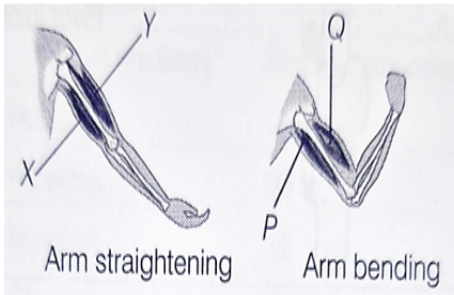
[+1]  
[-0]



- A. Style
- B. Ovary
- C. Stigma
- D. Ovule
- E. None of these

**Q32.** Muscles and bones work together to move various parts of our body, in order to bring movement. In the figure given below, arms in two condition have been shown. One is in straight position and other in bending. Identify X, Y, P and Q in the figure with the help of options that follow. ( Scroll down to view complete question )

[+1]  
[-0]



	X	Y	P	Q
a	Relaxing	Contracting	Contracting	Relaxing
b	Contracting	Relaxing	Contracting	Relaxing
c	Contracting	Contracting	Relaxing	Contracting
d	Relaxing	Contracting	Contracting	Contracting

- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q33.** Consider the given figure carefully, Which is showing the habitats of aquatic plants. What would be the correct statement regarding the function of such aquatic plants. ( Scroll down to view complete question )

[+1]  
[-0]

- P. Roots are much reduced in size and their main function is to hold the plant in place.
- Q. Roots are long in size and hollow and their only function is to absorb nutrients.
- R. Roots does not play any important role in the plant growth they only help plant to float on the surface of water.
- S. The stems are short and broad and just help in the transportation of water in the whole plant.
- T. Stems are long and narrow, with air spaces.
- U. Leaves are long and narrow in submerged plants.



- A. P, T and U
- B. Q, R and S
- C. R and T
- D. R, S, T and U
- E. None of these

**Q34.** A communication satellite is stationed in an orbit which is high above the earth. Which of the following type of motion will not be exhibited by it?

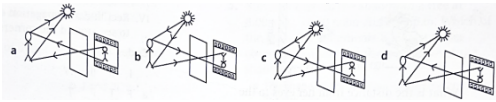
[+1]  
[-0]

- I. Rotational motion
- II. Rectilinear motion
- III. Periodic motion
- IV. Circular motion

- A. I and II
- B. II and III
- C. Only II
- D. II and IV
- E. None of these

**Q35.** A pinhole camera is based on the principle that light propagates in a straight line. Which of the following figures correctly depicts the image formation by pinhole camera?

[+1]  
[-0]



- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q36.** Assertion (A) : Shadows are formed on the same side of the source of light.

[+1]  
[-0]

Reason (R) : Shadow of an object is cast only when a translucent object obstructs the path of light incident on it from its back side.

Select the correct answer from the options given below.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false
- D. Both A and R are false.
- E. None of these

**Q37.** Consider the following statements and choose the incorrect ones.

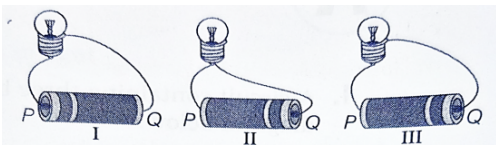
[+1]  
[-0]

- I. Reflection can be observed both in case of opaque as well as translucent objects.
- II. Images formed by reflection are always virtual.
- III. Images formed on standing water are laterally inverted.

- A. Only I
- B. Only II
- C. Only III
- D. All of these
- E. None of these

**Q38.** In which of the following diagrams the bulb will glow?

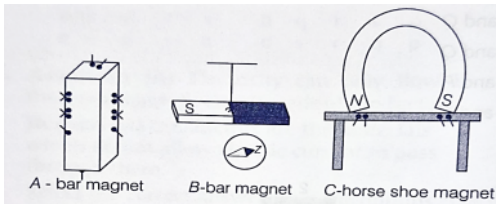
[+1]  
[-0]



- A. II and III
- B. I and II
- C. Only III
- D. All the above bulbs will glow
- E. None of these

**Q39.** Which of the following diagrams shown below correctly shows the properties of magnets?

[+1]  
[-0]

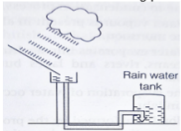


- A. A and B
- B. A and C
- C. B and C
- D. A, B and C
- E. None of these

**Q40.** The below figure is a line diagram of rain harvesting system. Observe the figure and identify the correct option regarding it.

[+1]  
[-0]

- I. The concentration of contaminants is reduced significantly by diverting the initial flow of runoff water to ground.
- II. The water collected is just redirected to deep percolation pit where it is filtered.
- III. The harvested water can never be used for drinking but used for irrigation.
- IV. Rainwater harvesting provides an independent water supply for potable water.



- A. I and II
- B. I, II and III
- C. I and IV
- D. I, II and IV
- E. None of these

**Q41.** Aquatic animals are able to survive in water just because they adopt various characteristics for the survival. Which statements are true about the adaptations for movement in water for a dolphin and a typical fish?

[+1]  
[-0]

- P. Each has a streamlined body shape.
- Q. Each has a tail to propel itself forward in the water.
- R. Each has a swim bladder to keep it afloat in water.
- S. Each has a pair of flippers to keep its balance in water.

- A. P and Q
- B. P and S
- C. Q and R
- D. R and S
- E. None of these

**Q42.** Assertion (A) : A passenger sitting in a moving car is at rest with respect to fellow passengers.

[+1]  
[-0]

Reason (R) : An object is said to be in motion if it changes its position with time with respect to surroundings.

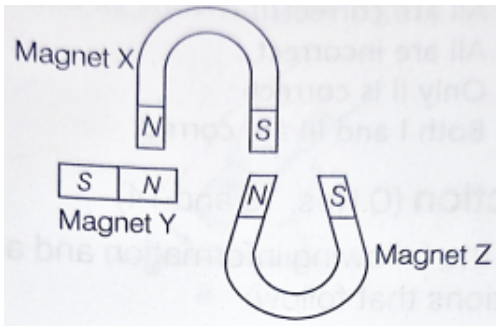
Select the correct answer from the options given as below.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false.
- D. A is false, but R is true.
- E. None of these

**Q43.** Observe the diagram shown below which consists of two horse shoe magnets and one bar magnet.

[+1]  
[-0]

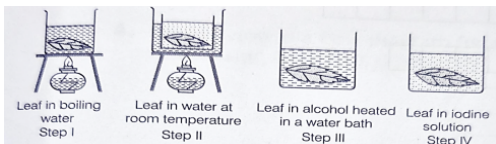
Which statement is true about the following arrangement?



- A. Magnet X will repel magnet Z
- B. Magnet Y will repel magnet Z
- C. Magnet X will be attracted to Y
- D. Magnet Z will be attracted to Y
- E. None of these

**Q44.** There is an activity given below. Analyse this and choose the option that correctly tells the objective behind it.

[+1]  
[-0]

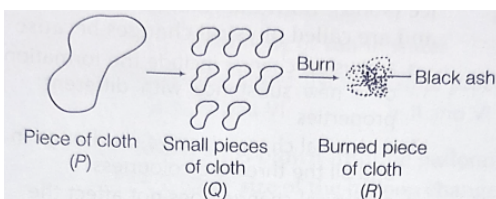


- A. Rate of photosynthesis
- B. The presence of starch
- C. The presence of cellulose in cell wall
- D. Strength of plant
- E. None of these

**Q45.** Manish took a piece of cloth and cut it into several small pieces. He hold a piece with the help of tongs and burn it.

[+1]  
[-0]

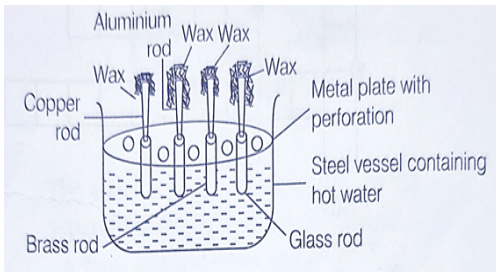
The correct statement about the conversion process shown below is



- A.  $P \rightarrow Q$  is a reversible change but  $Q \rightarrow R$  is irreversible change.
- B.  $P \rightarrow Q$  is a reversible change and  $Q \rightarrow R$  is also reversible change.
- C.  $P \rightarrow Q$  is an irreversible change and  $Q \rightarrow R$  is also irreversible change.
- D.  $P \rightarrow Q$  is an irreversible change but  $Q \rightarrow R$  is reversible change.
- E. None of these

**Q46.** Teacher gave the following demonstration in the classroom. ( Scroll down to view complete question )

[+1]  
[-0]



Now, she wrote the following statements as the conclusion of the demonstration and asked the students for selecting correct conclusions.

- I. Aluminium is a better conductor of heat as compared to brass.
  - II. Glass is a better conductor of heat as compared to copper.
  - III. Aluminium is a better conductor of heat as compared to copper.
  - IV. Brass is a better conductor of heat as compared to glass.
- A. I and II
  - B. I and IV
  - C. II and III
  - D. I and III
  - E. None of these

**Q47.** Analyse the given flow chart and identify P, Q, R and S (on the basis of example or its presence)

[+1]  
[-0]



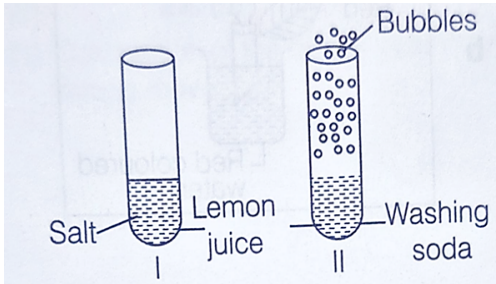
	P	Q	R	S
a	Swimmer	Knee bending	Top of the neck	Wrist movement
b	Sleeping straight	Sitting	Biceps	Ankle movements
c	Ankle movement	Wrist	Biceps	Knee bending
d	Top of neck	Swimming	Wrist movement	Ankle movement

- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q48.** Namit took 2ml lemon juice in two different test tubes and add 1gm of salt (common salt) in one test tube and 1g washing soda in another. The observation of Namit is shown below.

[+1]  
[-0]

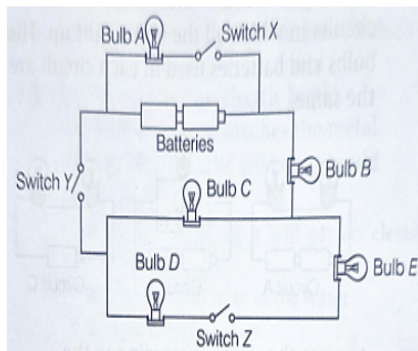
Choose the option which is the correct reason for this observation?



- A. In test tube II, a chemical change takes place with the evolution of water vapours.
- B. In test tube I, a chemical change takes place but no water vapours are formed.
- C. In test tube II, a chemical change takes place with the evolution of carbon dioxide gas.
- D. In test tube I, salt dissolves in lemon juice but in test tube II washing soda does not.
- E. None of these

**Q49.** The circuit diagram below consists of 5 bulbs A, B, C, D and E and 3 switches X, Y and Z. ( Scroll down to view complete question )

[+1]  
[-0]



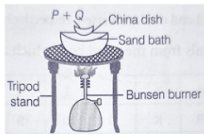
Which of the following shows the correct result when one of the switches is open and one of the bulbs is fused?

	Switch opened	Bulb that fused	Bulb(s) that remain lit
a	X	Bulb C	Bulbs D and E
b	Y	Bulb D	Bulbs A, B and C
c	Z	Bulb B	Bulbs C and E
d	X	Bulb E	Bulbs B and C

- A. a
- B. b
- C. c
- D. d
- E. None of these

**Q50.** To separate P from Q, Rama took the mixture in a China dish and heated it for some time. After that she observed that only P remains in the China dish and no traces of Q are found. The substances P and Q and the process R are

[+1]  
[-0]



	P	Q	R
a	Sugar	Salt	Separation
b	Salt	Water	Condensation
c	Water	Salt	Evaporation
d	Salt	Water	Evaporation

- A. a
- B. b
- C. c
- D. d
- E. None of these



CLASS / GRADE

Class 6

SUBJECT

IFSO

TOTAL QUESTIONS

50

MAX MARKS

50

ANSWER SHEET — 50 QUESTIONS

Q01-Q10	ANS	Q11-Q20	ANS	Q21-Q30	ANS	Q31-Q40	ANS	Q41-Q50	ANS
Q01	B	Q11	A	Q21	D	Q31	D	Q41	A
Q02	B	Q12	D	Q22	A	Q32	B	Q42	B
Q03	B	Q13	B	Q23	B	Q33	A	Q43	B
Q04	D	Q14	D	Q24	C	Q34	C	Q44	B
Q05	C	Q15	B	Q25	A	Q35	B	Q45	A
Q06	B	Q16	D	Q26	D	Q36	D	Q46	B
Q07	A	Q17	C	Q27	B	Q37	B	Q47	A
Q08	E	Q18	B	Q28	A	Q38	C	Q48	C
Q09	C	Q19	A	Q29	A	Q39	D	Q49	D
Q10	C	Q20	C	Q30	A	Q40	C	Q50	D

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