



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 7

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

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

Q1. Arrange the given words in alphabetical order and choose the one that comes in the middle.

[+1]
[-0]

Nozzle, Nausea, Nostril, Nomenclature, Normal

- A. Nozzle
- B. Nausea
- C. Nostril
- D. Nomenclature
- E. Normal

Q2. Gaurav walks 20 metres towards North. He then turns left and walks 40 metres. He again turns left and walks 20 metres. Further, he moves 20 metres after turning to the right. How far is he from his original position?

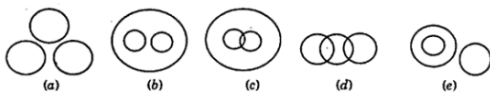
[+1]
[-0]

- A. 20 metres
- B. 30 metres
- C. 50 metres
- D. 60 metres
- E. None of these

Q3. Which is the most suitable Venn diagram among the following which represents relationship among

[+1]
[-0]

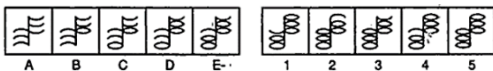
Thieves, Lawyers, Criminals



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

Q4. Choose the correct option to continue the series.

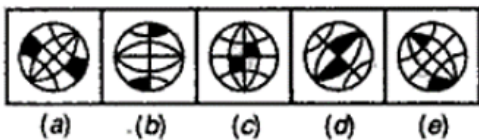
[+1]
[-0]



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

Q5. Choose the odd one out.

[+1]
[-0]



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

- Q6.** P is the brother of D. X is the sister of P. A is the brother of F. F is the daughter of D. M is the father of X. Who is the uncle of A? [+1]
[-0]
- A. X
 - B. P
 - C. F
 - D. M
 - E. None of these
- Q7.** In a certain code language, '617' means 'sweet and hot'; '735' means 'coffee is sweet' and '263' means 'tea is hot', Which of the following would mean 'coffee is hot' ? [+1]
[-0]
- A. 731
 - B. 536
 - C. 367
 - D. 753
 - E. None of these
- Q8.** If in a certain code STINK is written as TVLRP then how will QUAKE be written in the same code? [+1]
[-0]
- A. RWEOJ
 - B. RWDOJ
 - C. RWDJO
 - D. RWEJO
 - E. None of these
- Q9.** The missing letters are given in the proper sequence as one of the option. Choose the correct option. [+1]
[-0]
- ccbab _ caa _ bccc _ a _
- A. babb
 - B. bbba
 - C. baab
 - D. babc
 - E. None of these
- Q10.** Choose the correct option to continue the series. [+1]
[-0]
- TIN, WLQ, ZOT, ?
- A. BQV
 - B. CRW
 - C. DQV
 - D. CWR
 - E. None of these

Q11. Choose the odd one out.

[+1]
[-0]

1315 , 2709 , 3249 , 8314

- A. 1315
- B. 2709
- C. 3249
- D. 8314
- E. None of these

Q12. Choose the correct option to complete the series.

[+1]
[-0]

41 , 43 , 47 , 53 , ? , 61

- A. 57
- B. 54
- C. 51
- D. 59
- E. None of these

Q13. Choose the odd one out. (from the given options)

[+1]
[-0]

- A. Deer : Flesh
- B. Crane : Fish
- C. Crow : Carrion
- D. Mongoose : Snake
- E. None of these

Q14. Which pair of letters completes the second pair in the same way as first pair?

[+1]
[-0]

AG : IO :: EK : __

- A. LR
- B. MS
- C. PV
- D. SY
- E. None of these

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

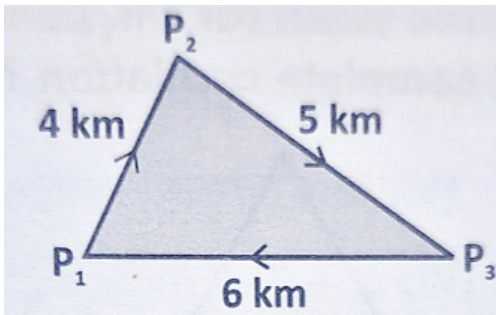
[+1]
[-0]

Shield : Soldier

- A. Law : Court
- B. Stethoscope : Doctor
- C. Helmet : Rider
- D. Book : Reader
- E. None of these

Q16. A cyclist travels at an average speed of 25km / h. How long will it take for him to travel a triangular journey through three places P_1 , P_2 and P_3 as shown in the figure ?

[+1]
[-0]



- A. 20 minutes
- B. 36 minutes
- C. 1 hour
- D. 1 hour 20minutes
- E. None of these

Q17. A simple pendulum is put into oscillation on the Earth, Mars and Jupiter. Their gravitational accelerations are 10ms^{-2} , 3.8ms^{-2} and 25.4ms^{-2} respectively. On which planet does the simple pendulum oscillate the fastest?

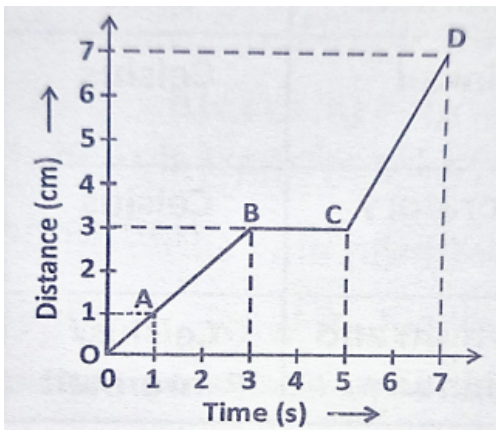
[+1]
[-0]

- A. Earth
- B. Mars
- C. Jupiter
- D. All of these
- E. None of these

Q18. The graph given below shows the position of an ant at different times.

What is its average speed in cm/sec? (Scroll down to view complete question)

[+1]
[-0]



- A. 1.5
- B. 3
- C. 1
- D. 4.5
- E. None of these

- Q19.** The diagram given below shows three beakers I, II and III with the same amount of water. Bunsen burners were placed under the beakers to heat the water until it boiled.

[+1]
[-0]

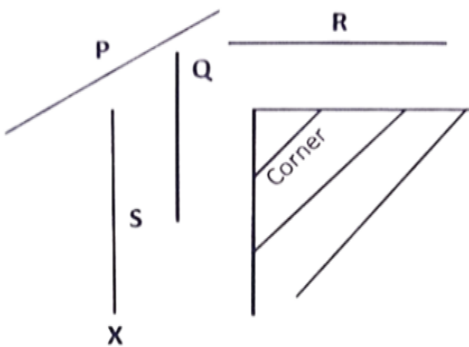


Which of the following statements is true at the end of the experiment?

- A. Water in Beaker I has the lowest temperature.
B. Water in Beaker III has the highest temperature.
C. Water in Beakers I, II and III are of the same temperature.
D. Water in Beaker II has a higher temperature than water in Beaker I.
E. None of these
- Q20.** A student hung two identical metal cups Y and Z of same mass from a horizontal rod. A lighted candle was then placed directly under Cup Y. After a few minutes, cup Y moved up and Cup Z moved down. Identify a true statement.
- A. Cup Y had expanded and became lighter.
B. Cup Z had expanded and became heavier.
C. The air in Cup Y expanded and rose.
D. The air in Cup Z contracted and became heavier.
E. None of these
- Q21.** For a person standing at X, the best position to place a plane mirror for him to see round the corner?

[+1]
[-0]

[+1]
[-0]

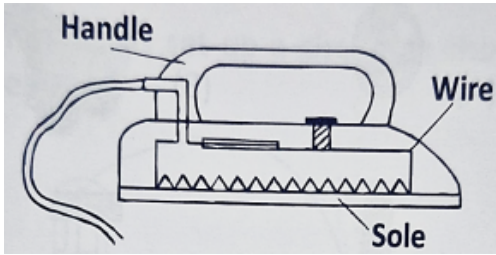


- A. P
B. S
C. R
D. Q
E. None of these

Q22. The diagram given below shows the parts of an electric iron.

[+1]
[-0]

The base is usually made up of steel. Which of the following properties is the most important in its use?



- A. Resistant to rusting
- B. Strong and hard
- C. Conducts heat
- D. Smooth and Light
- E. None of these

Q23. A drop of ink is placed in four same sized tubes. When these tubes were placed in different directions, the position of the drop of ink did not change to prove that air pressure

[+1]
[-0]

- A. is very high
- B. acts in all directions
- C. can support the mass of the drop of ink
- D. creates a vacuum on both sides of the drop of ink.
- E. None of these

Q24. Given below are the various steps involved in animal nutrition.

[+1]
[-0]

1. Assimilation	2. Ingestion
3. Absorption	4. Digestion
5. Egestion	

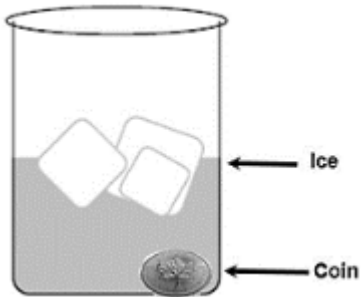
Which is the correct sequential order in an animal nutrition?

- A. 3, 2, 4, 1, 5
- B. 3, 1, 4, 2, 5
- C. 2, 4, 3, 1, 5
- D. 3, 4, 2, 5, 1
- E. None of these

Q25. It is observed that a coin put in a glass beaker filled with water sinks to the bottom of the beaker. Ice cubes, which are much bigger and much heavier than the coin, float when put in the beaker.

[+1]
[-0]

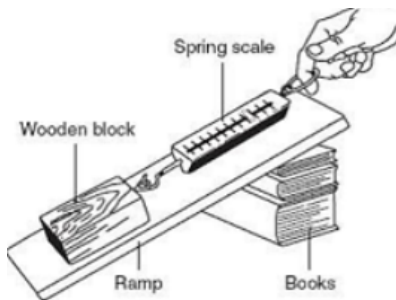
Choose the correct explanation for this observation.



- A. Heavy objects which are large in size float more easily than lighter objects which are smaller in size.
- B. Ice floats on water because it has lower temperature and is denser than water.
- C. Ice floats on water because it is less dense than water.
- D. The coin has a sharp edge which cuts through the water surface, which then allows it to sink to the bottom of the beaker.
- E. None of these

Q26. The diagram shows a wooden block being pulled up an inclined plane using a spring balance. Which of the following factors will affect the amount of force needed to pull the wooden block ? (Scroll down to view complete question)

[+1]
[-0]



P. The mass of the wooden block.
Q. The mass of the spring balance.
R. The surface of the inclined plane.
S. The surface of the wooden block that comes in contact with the inclined plane.

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

Q27. Which option in the table below, correctly shows the material and its property that should be taken into consideration to make the handle of a cooking pot?

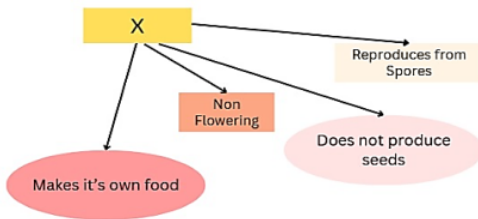
[+1]
[-0]

	Material	Property
a	Plastic	Lighter than metal
b	Plastic	Poor conductor of heat
c	Metal	Stronger than plastics
d	Metal	Good conductor of heat

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

Q28. The properties of X are given in the chart. Identify X.

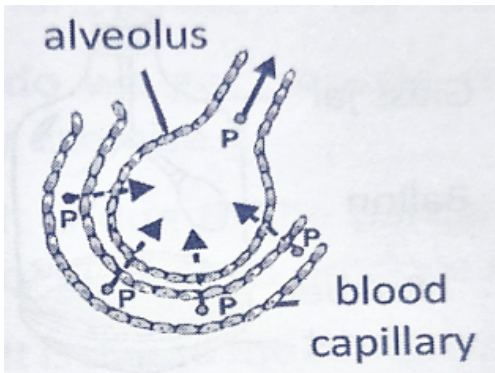
[+1]
[-0]



- A. Bryophyllum
- B. Pineapple
- C. Begonia
- D. Fern
- E. None of these

Q29. Gas 'P' diffuses from a capillary into an alveolus in the lungs. When is gas 'P' expelled out from the alveolus?

[+1]
[-0]



- A. During inhalation
- B. During exhalation
- C. During perspiration
- D. During inspiration
- E. None of these

Q30. Study the characteristics given below.

[+1]
[-0]

P - A thick-walled vessel that carries oxygenated blood
Q - A thin-walled vessel that carries deoxygenated blood
R - Very small thin tubes that connects veins and arteries

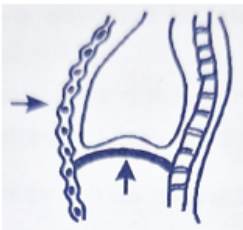
Which of these statements represented by P, Q and R is correct?

	Artery	Capillary	Vein
a	P	R	Q
b	R	Q	P
c	R	P	Q
d	Q	R	P

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

Q31. What happens when our ribcage moves inwards and diaphragm moves upwards as shown in the diagram below?

[+1]
[-0]

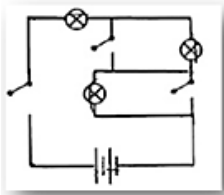


1. air rushes into the lungs.
2. air is forced out of the lungs.
3. the space in our chest becomes larger.
4. the space in our chest becomes smaller.

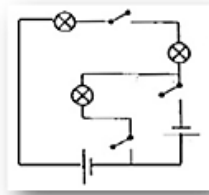
- A. 1 and 3
- B. 1 and 4
- C. 2 and 3
- D. 2 and 4
- E. None of these

Q32. A student constructed a circuit by connecting 2 identical batteries, 3 identical bulbs and 3 switches. He closed one switch and found that only 2 of the bulbs lit up. Which one of the following could be the circuits that he had constructed ? (Scroll down to view complete question)

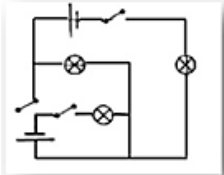
[+1]
[-0]



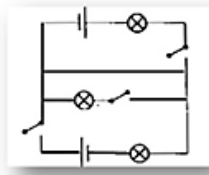
1



2



3

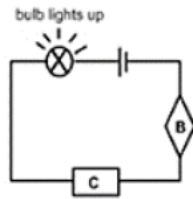
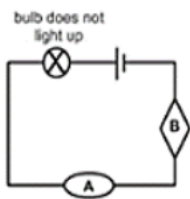


4

- A. 1
- B. 2
- C. 3
- D. 4
- E. None of these

Q33. The circuits below show the outcome of connecting objects A, B and C to a bulb and a battery. Which of the following is/are conductor(s) of electricity?

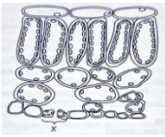
[+1]
[-0]



- A. C only
- B. A only
- C. B only
- D. A and B only
- E. B and C only

Q34. The given diagram shows the arrangement of cells inside a green leaf. (Scroll down to view complete question)

[+1]
[-0]



P is a substance that is carried to leaf cell and Q is the product that moves out from the part X.

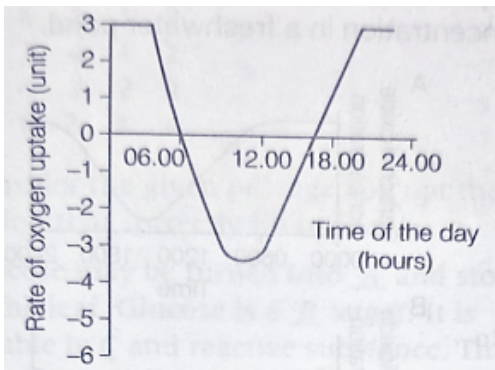
	P	Q
a	Water	Minerals
b	Carbon dioxide	Oxygen
c	Oxygen	Carbon dioxide
d	Starch	Amino acids

- A. a
- B. b
- C. c
- D. d
- E. B and C only

Q35. The graph below shows the rate of oxygen uptake of a plant in 24 hours.

[+1]
[-0]

Which of the following correctly describes the plant at 1200 hours?

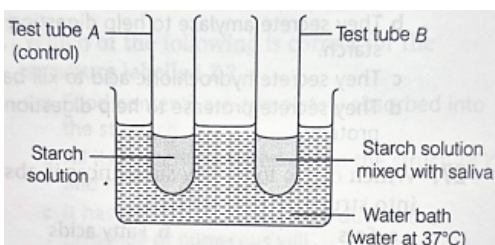


- A. It carried out photosynthesis, but not respiration.
- B. It carried out photosynthesis at the maximum rate.
- C. The rate of photosynthesis was equal to the rate of respiration.
- D. The rate of photosynthesis was lower than the rate of respiration.
- E. None of these

Q36. The experimental apparatus shows the action of saliva on starch.

[+1]
[-0]

The temperature of the water bath kept at 37°C and not at room temperature because

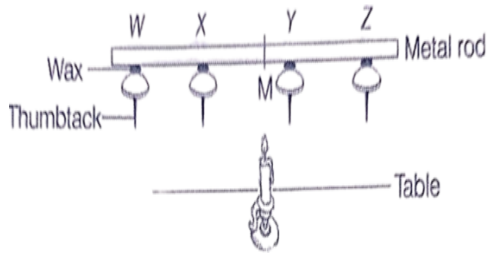


- A. the human body temperature is 37°C.
- B. enzyme work fastly at 37°C.
- C. starch dissolve properly at 37°C.
- D. it is difficult to maintain water temperature at room temperature with enzyme.
- E. None of these

Q37. Priya set up the experiment as shown below:

[+1]
[-0]

She placed the lighted candle below the metal rod at position M. She used the same amount of wax to hold all the thumbtacks at W, X, Y and Z on the rod. Arrange the thumb tacks according to the time each of them takes to drop from the rod, from the first to the last.



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

Q38. Seema took some pickle from the burney by using metal spoon, but she left the spoon there. After a few days, when she again took the pickle, she found the spoon but with a hole. What could be the possible reason for this?

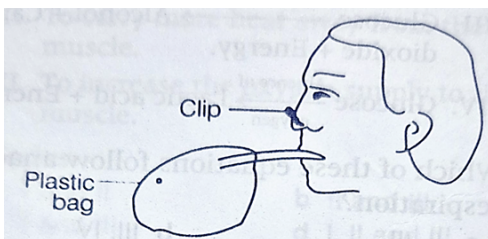
[+1]
[-0]

- A. Metal is dissolved by the oil present in the pickle.
- B. Metal is dissolved by a gas which is liberated by the oil in the presence of Metal.
- C. Metal reacts with the acid present in the pickle to form salt and hence, gets dissolved.
- D. Metal reacts with the burney material (glass) to give acid which dissolves the metal
- E. None of these

Q39. A person's nose was clipped and was asked to breathe in and out in a plastic bag as shown in the diagram below.

[+1]
[-0]

Which of the following changes in the blood of the person could be the reason for the change in his breathing rate and deep breathing.



- A. The carbon dioxide concentration had increased.
- B. The lactic acid concentration has increased.
- C. The oxygen concentration had increased.
- D. The temperature of his blood had increased.
- E. None of these

Q40. The human eye has a converging lens system that produces an image at the back of the eye. If the eye views a distant object, then which type of image is produced?

[+1]
[-0]

- A. Real, erect, same size
- B. Real, inverted, diminished
- C. Virtual, erect, diminished
- D. Virtual, inverted, magnified
- E. None of these

Q41. Mivaan fills an empty pot with soil. He sowed the budding points of a potato in the soil and watered the soil regularly. What do you think Mivaan will observe after some days?

[+1]
[-0]

- A. Roots can be seen emerging from bulb and shoots from tuber.
- B. Shoot can be seen emerging from bulb and roots from tuber.
- C. Roots and shoots emerge from bulb only.
- D. Roots and shoots emerge from tuber only.
- E. None of these

Q42. A man walked at 2km/hr from his house to the neighbourhood park 500m away. He then jogged around the park at 10km/hr for 30min. To cool down, he walked back home from the park at 1.5km/hr.

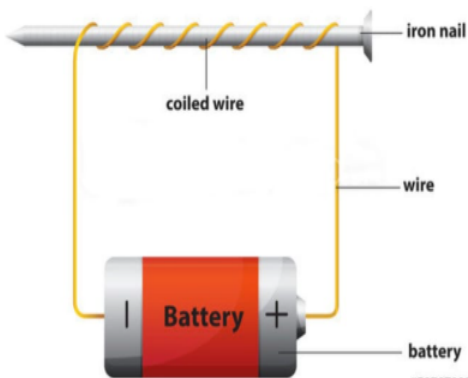
[+1]
[-0]

If he started the journey from his home at 6:30pm then at what time would he reach home?

- A. 7:30 pm
- B. 7:35 pm
- C. 7:40 pm
- D. 7:45 pm
- E. None of these

Q43. Which of the following does not make the electromagnet stronger?

[+1]
[-0]



- A. Increasing the number of turns of wire in the coil.
- B. Increasing the current in the coil.
- C. Using a soft iron core.
- D. Using a bigger resistor.
- E. None of these

Q44. Which of the following statements are incorrect?

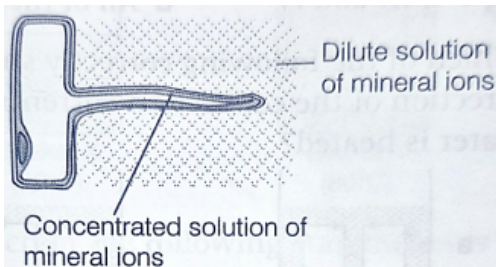
[+1]
[-0]

- P. Fuse is a safety device.
 Q. Modern houses use Miniature Circuit Breakers.
 R. MCB needs to be replaced every time a heavy electric current pass through it.
 S. It serves the same purpose as a CFL.

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

Q45. The diagram shows a root hair, surrounded by a dilute solution of mineral ions.

[+1]
[-0]

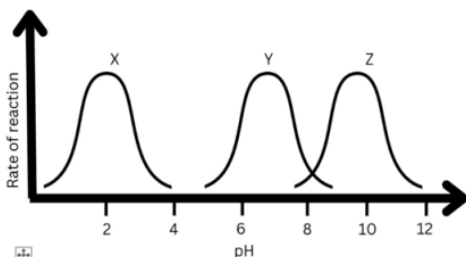


Which statement is correct?

- A. Water molecules move into the root hair by osmosis.
 B. Water molecules move out of the root hair by osmosis.
 C. Water molecules move into the root hair by diffusion.
 D. Water molecules move out of the root hair by diffusion.
 E. None of these

Q46. Which of the following are the possible locations in man, where the three enzymes can be found ? (Scroll down to view complete question)

[+1]
[-0]



	X	Y	Z
a	Duodenum	Mouth	Stomach
b	Mouth	Stomach	Duodenum
c	Stomach	Duodenum	Mouth
d	Stomach	Mouth	Duodenum

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

Q47. Which of the following test(s) will successfully prove that an unknown substance X is an acid?
Substance X is known to have the ability to remove rust from metal surfaces.

[+1]
[-0]

- I. Litmus Test
- II. pH meter
- III. React X with carbonates
- IV. React X with magnesium ribbon

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

Q48. The steps of urine formation are given below with some blanks, fill the blanks by opting the correct option.

[+1]
[-0]

- I. P is the process in which nephrons filter minerals, waste and water but retain Q and large molecules.
- II. Selective reabsorption involves reabsorption of substances like R amino acids, salts and a major amount of water.
- III. S involves secretion of substances not required by the body into the filtrate by the cells of DCT before it leaves the kidney.

	P	Q	R	S
a	Tubular secretion	RBCs	Glucose	Ultra filtration
b	Ultra filtration	RBCs	Glucose	Tubular filtration
c	Ultra filtration	Proteins	Glucose	Tubular secretion
d	Tubular secretion	Glucose	RBCs	Ultra filtration

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

Q49. Given below are the stages of budding in yeast but they are not in correct order. Choose the correct order from the given options.

[+1]
[-0]

- I. One of the nuclei enters the bud.
- II. An outgrowth known as bud forms on the outer surface of a parent cell.
- III. The bud cleaves to become a new daughter cell.
- IV. The nucleus then divides.
- V. A cell wall is formed between the parent cell and the bud.

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

Q50. A lens is a piece of refracting medium bounded by two surfaces at least one of which is a curved surface. An image formed by a lens is erect. Such an image could be formed by a

[+1]
[-0]

- A. Convex lens, provided the image is smaller than object.
- B. Concave lens, provided the image is smaller than object.
- C. Concave lens, provided the image is larger than object.
- D. Concave lens, provided the image is of the same size.
- E. None of these



CLASS / GRADE

Class 7

SUBJECT

IFSO

TOTAL QUESTIONS

50

MAX MARKS

50

ANSWER SHEET — 50 QUESTIONS

Q#	ANS	Q#	ANS	Q#	ANS	Q#	ANS	Q#	ANS
01	E	11	D	21	A	31	D	41	D
02	D	12	D	22	C	32	C	42	B
03	E	13	A	23	B	33	E	43	D
04	D	14	B	24	C	34	B	44	C
05	E	15	C	25	C	35	B	45	A
06	B	16	B	26	C	36	A	46	D
07	B	17	C	27	B	37	C	47	D
08	B	18	C	28	D	38	C	48	C
09	A	19	C	29	B	39	A	49	C
10	B	20	C	30	A	40	B	50	B

◆ ALL IOF OLYMPIAD PROGRAMMES ◆

