



SAMPLE PAPER

International Olympiad Foundation

EXCELLENCE IN EDUCATION

International Olympiad Foundation

14+

OLYMPIADS

MCQ

FORMAT

0

NEGATIVE MARKS

OLYMPIAD

Reasoning & Aptitude Olympiad

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

CLASS / GRADE

Class 10

SUBJECT

IFRAO

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. Choose the option which has the same relationship as in the first pair to complete the second pair.

[+1]
[-0]

GFE : KJI :: ONM : ?

- A. SRT
- B. SRQ
- C. TSR
- D. RQP
- E. None of these

Q2. Choose the word which has the same relationship as in the first pair to complete the second pair.

[+1]
[-0]

Contaminated : Sinful :: Immense : ?

- A. Tiny
- B. Gigantic
- C. Brave
- D. Beautiful
- E. None of these

Q3. Arjun travelled 3km east from his home, then 2km north followed by 3km to east. He took a 90° right turn and walked 5km straight, then he again took a right turn and walked 6km more. How far is he from his home?

[+1]
[-0]

- A. 5 km
- B. 3 km
- C. 6 km
- D. 2 km
- E. None of these

Q4. When seen through a mirror, a clock shows 8:30. What is the correct time?

[+1]
[-0]

- A. 2:30
- B. 3:30
- C. 5:30
- D. 8:30
- E. None of these

Q5. Take the given statement(s) as true and decide which of the conclusion logically follows from the statements.

[+1]
[-0]

Statements: All clocks are Alarms.
No clocks are Cuckoos.
All cuckoos are Alarms
Some cuckoos are Birds.

Conclusion : I : Some Alarms are Birds.
II. No Clock is a Bird .
III. All Birds are Alarms .

- A. Only conclusion I follows
- B. Only conclusion II follows.
- C. Only conclusion III follows
- D. Both conclusions II and III follows.
- E. None of these

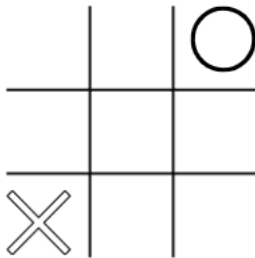
- Q6.** In the given question, some words are given which are related in some way. Find the option which has same relationship.

[+1]
[-0]

Magazine : Story : Article

- A. Novel : Drama : Literature
B. Tea : Milk : Sugar
C. Television : Newspaper : Entertainment
D. Bed : Quilt : Pillow
E. None of these
- Q7.** Two players X and O play a game of “noughts and crosses” on a 3 X 3 grid. The purpose of the game is for a player to get 3 symbols belonging to the player in a straight line (vertically, horizontally or diagonally). Each player marks one symbol on his or her turn. After two moves (1turn each), the grid looks as follows with X to play next. Where should X put his symbol next so that he will always win this game finally regardless of how well O plays?

[+1]
[-0]



- A. Bottom row right corner
B. Bottom row middle cell
C. Middle row left most cell
D. It is not possible to always ensure X wins if O plays carefully
E. None of these
- Q8.** Choose the odd one out.

[+1]
[-0]

Pupil , Iris , Cornea , Medulla , Retina

- A. Pupil
B. Iris
C. Cornea
D. Medulla
E. Retina
- Q9.** Choose the pair in which the words are differently related.

[+1]
[-0]

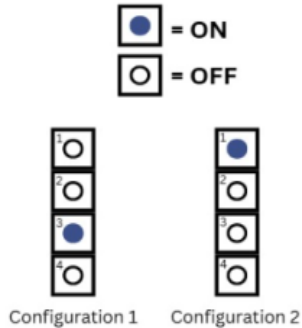
- A. Atom : Electron
B. Train : Engine
C. House : Room
D. Scooter : Gears
E. Curd : Milk

Q10. An electrical circuit for a set of 4 lights depends on a system of switches A, B, C and D. When these switches work they have the following effects on the lights: They each change the state of two lights (i.e. on becomes off and off becomes on). The lights that each switch controls are as follows.

[+1]
[-0]

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

In configuration 1 shown below, switches CBDA are activated in turn, resulting in configuration 2. One switch did not work and had no effect at all. Which was that switch? (Scroll down to view the complete question)



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

Q11. Choose the next term to continue the series.

[+1]
[-0]

MHZ, NIW, OKT, PNQ, ?

- A. RRN
- B. QRN
- C. QRM
- D. QQN
- E. None of these

Q12. The missing letters are given in the proper sequence as one of the option. Choose the correct option.

[+1]
[-0]

abca_bcaab_ca_bbc_a .

- A. ccaa
- B. bbaa
- C. abac
- D. abba
- E. None of these

Q13. In a certain language, 'pre nat bis' means 'smoking is harmful', 'vog dor nat' means 'avoid harmful habit' and 'dor bis yel' means ' please avoid smoking'. Which of the following means 'habit' in that language?

[+1]
[-0]

- A. vog
- B. nat
- C. dor
- D. bis
- E. None of these

Q14. A is father of X; B is mother of Y. The sister of X and Z is Y. Which of the following statements is definitely not true?

[+1]
[-0]

- A. B is the mother of Z
- B. X is the sister of Z
- C. B is the wife of A
- D. B has one daughter
- E. Y is the son of A

Q15- Read the following information and answer the given question.

[+1]
[-0]

18. Six films – P, Q, R, S, T and U – are to be released on consecutive Fridays. The schedule of the release is to be in accordance with the following conditions.

- (i) P must be released a week before T.
- (ii) R must not be released immediately after the first release.
- (iii) Q must be released on the Friday following the Friday on which U is released.
- (iv) S must be released on fifth Friday and should not be immediately preceded by Q.
- (v) T must not be released in the last.

Q15: Which of the following films preceded T?

[+1] [-0]

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

Q16: Which of the following films released immediately after Q?

[+1] [-0]

- A. P
- B. R
- C. T
- D. U
- E. None of these

Q17: Film R cannot be released on which of the following Fridays in addition to second Friday?

[+1] [-0]

- A. First
- B. Third
- C. Fourth
- D. Fifth
- E. None of these

Q18: In between which of the two films S is to be released?

[+1] [-0]

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

Q19. Select the correct arrangement of words in the alphabetical order.

[+1]
[-0]

- A. Heavy, Herald, Hesitate, Hedge
- B. Lapse, Language, Leisure, Leave
- C. Finger, Forget, Formal, Forgo
- D. Waiting, Wanting, Watching, Waving
- E. None of these

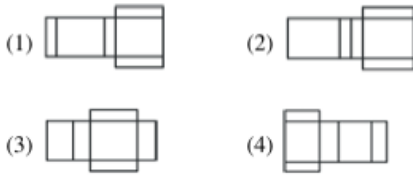
Q20. If the seventh day of a month is 3 days earlier than Friday, what day will it be on the nineteenth day of the month?

[+1]
[-0]

- A. Saturday
- B. Sunday
- C. Monday
- D. Wednesday
- E. None of these

Q21. Which of the nets below could be folded to form a box.

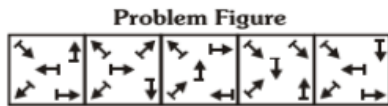
[+1]
[-0]



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

Q22. Choose the correct option to continue the series.

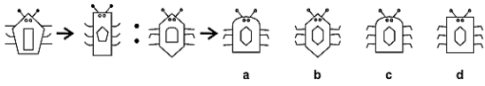
[+1]
[-0]



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

Q23. Which figure completes the second pair in the same way as first pair?

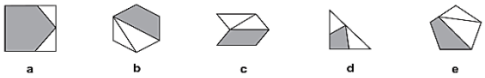
[+1]
[-0]



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

Q24. Choose the odd one out.

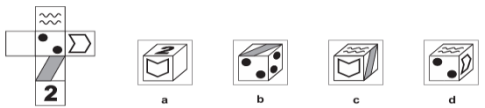
[+1]
[-0]



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

Q25. Choose the correct option that can be formed by folding the given net.

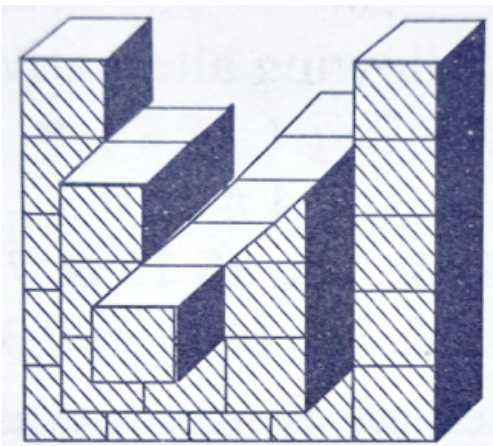
[+1]
[-0]



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

Q26. Count the number of cubes in the given figure?

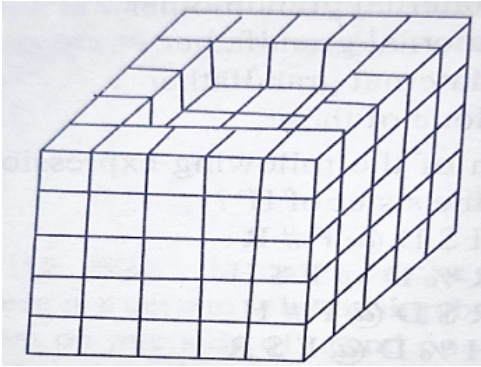
[+1]
[-0]



- A. 22
- B. 25
- C. 30
- D. 32
- E. None of these

Q27. Some equal cubes are arranged in the form of a solid block as shown in the figure given below. All the visible surfaces of the block (except bottom) are then painted. How many cubes do not have any of the faces painted?

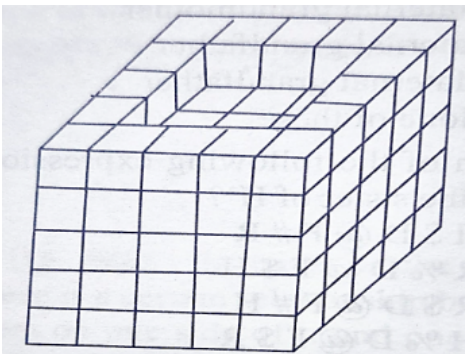
[+1]
[-0]



- A. 27
- B. 32
- C. 36
- D. 40
- E. None of these

Q28. Some equal cubes are arranged in the form of a solid block as shown in the figure given below. All the visible surfaces of the block (except bottom) are then painted. How many cubes have only two faces painted?

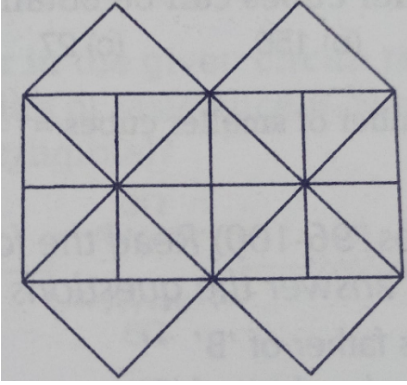
[+1]
[-0]



- A. 0
- B. 16
- C. 20
- D. 24
- E. None of these

Q29. What is the minimum number of straight lines needed to construct the following figure?

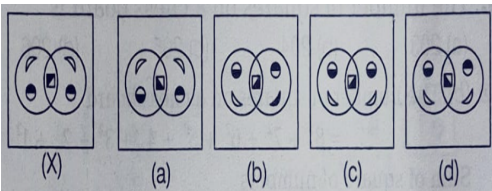
[+1]
[-0]



- A. 13
- B. 15
- C. 16
- D. 17
- E. None of these

Q30. Choose the correct water-image of the figure(X) from the given options.

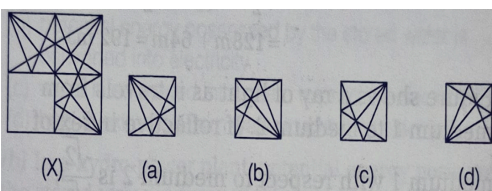
[+1]
[-0]



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

Q31. Choose the correct option which when placed in the blank space of fig(X) would complete the pattern.

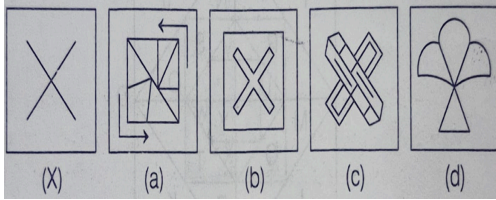
[+1]
[-0]



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

Q32. Choose the correct option which contains figure(X) as its parts.

[+1]
[-0]

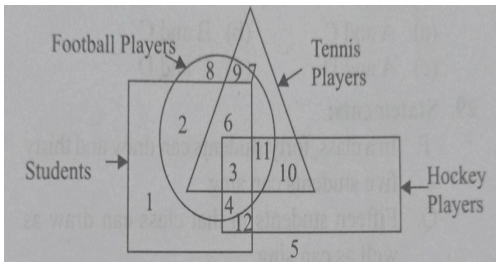


- A. (a)
- B. (b)
- C. (c)
- D. (d)
- E. None of these

Q33. The given question is based on the figure below in which each geometric shape represents a group.

[+1]
[-0]

Which number represents the students who play only football?

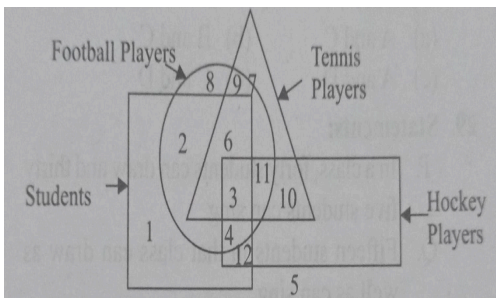


- A. 9
- B. 8
- C. 6
- D. 2
- E. None of these

Q34. The given question is based on the figure below in which each geometric shape represents a group.

[+1]
[-0]

Which number represents the students who play football, tennis and hockey?

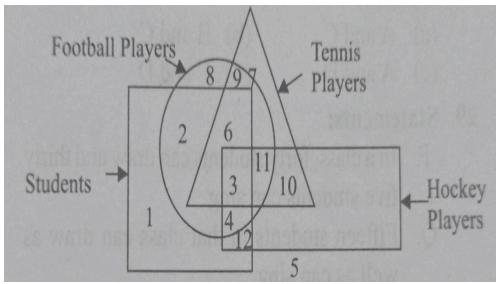


- A. 3
- B. 4
- C. 6
- D. 9
- E. 11

Q35. The given question is based on the figure below in which each geometric shape represents a group.

[+1]
[-0]

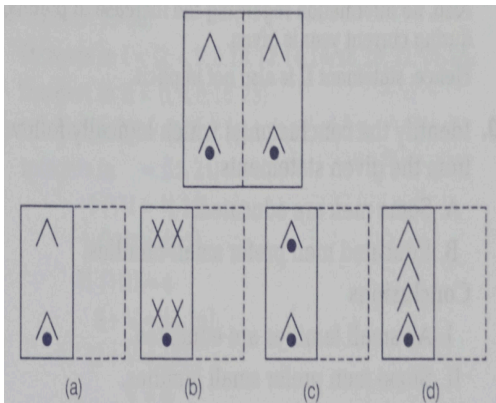
Which of the following choices does '9' represents?



- A. Students who play only football and tennis.
- B. Students who play only tennis.
- C. Non-students who play football and tennis.
- D. Non-students who play only football.
- E. Students who play only tennis and hockey.

Q36. When a square shaped transparent sheet with the pattern show in the figure is folded along the dotted line which pattern would appear?

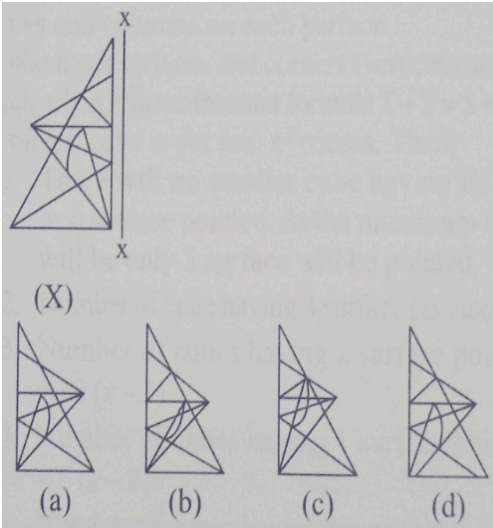
[+1]
[-0]



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

Q37. Choose the correct mirror image of the figure(X) from the given options.

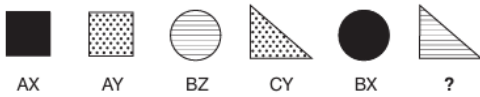
[+1]
[-0]



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

Q38. Which code matches the shape or pattern given at the end of line? Choose the correct option.

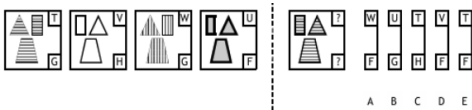
[+1]
[-0]



- A. BZ
- B. AZ
- C. CX
- D. BY
- E. CZ

Q39. Choose the code letters that describes the shape in the box on the right side.

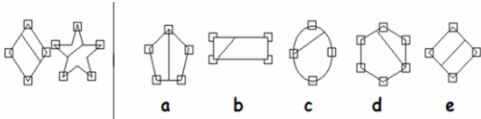
[+1]
[-0]



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

Q40. Which shape or pattern on the right belongs with the two on the left?

[+1]
[-0]



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

Q41. Choose the correct option in place of ? .

[+1]
[-0]

4	1	2
13	11	6
153	120	?

- A. 32
- B. 45
- C. 16
- D. 48
- E. None of these

Q42. Find the missing number in the number series?

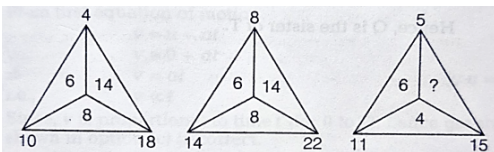
[+1]
[-0]

4, 8, 28, ? , 244

- A. 69
- B. 75
- C. 80
- D. 90
- E. None of these

Q43. Which number will replace the question mark?

[+1]
[-0]



- A. 8
- B. 14
- C. 10
- D. 6
- E. None of these

Q44. Identify the wrong number in the series.

[+1]
[-0]

7 , 28 , 63 , 124 , 215 , 344

- A. 28
- B. 63
- C. 124
- D. 344
- E. None of these

Q45. Which number will replace question mark?

[+1]
[-0]

7	9	21	27
4	2	36	18
9	4	54	?

- A. 18
- B. 24
- C. 36
- D. 58
- E. None of these

Q46. Identify the pair which is different from the given options .

[+1]
[-0]

- A. 27, 83
- B. 14, 44
- C. 20, 58
- D. 18, 56
- E. 22, 68

Q47. Which number will replace the question mark?

[+1]
[-0]

6	8	4
9	12	6
15	20	?

- A. 5
- B. 10
- C. 20
- D. 25
- E. None of these

Q48. Which number will replace the question mark?

[+1]
[-0]

28	60	48
5	6	7
14	39	27
7	?	16

- A. 18
- B. 23
- C. 24
- D. 27
- E. None of these

Q49. In an imaginary language, the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are replaced by a, b, c, d, e, f, g, h, i and j. Also 10 is substituted by ba.

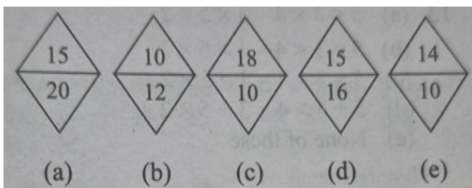
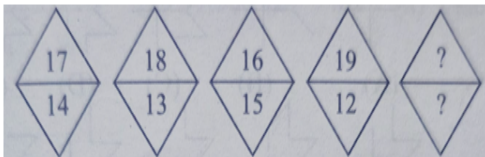
[+1]
[-0]

What is the value of $baf \div bf \times d$?

- A. cb
- B. be
- C. df
- D. bce
- E. None of these

Q50. Find the missing number in the following set of figure.

[+1]
[-0]



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



CLASS / GRADE

Class 10

SUBJECT

IFRAO

TOTAL QUESTIONS

50

MAX MARKS

50

ANSWER SHEET — 50 QUESTIONS

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

◆ ALL IOF OLYMPIAD PROGRAMMES ◆

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