



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 12

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.** A sprinter goes off the starting block for 100m run and at that instant the second hand of a stopwatch had pointed towards North. He touches the finishing line exactly after 12 seconds. In which direction did the second hand point when he just crossed the finishing line? [+1]
[-0]
- A. 18° North of East
 - B. 18° East of North
 - C. 72° North of East
 - D. 82° East of North
 - E. None of these
- Q2.** Question given below has a problem and two statements I and II. Decide if the information given in the statement is sufficient for answering the problem. [+1]
[-0]
- K, R, S and T are four players in Indian Cricket team. Who is the oldest among them?
- I. The total age of K and T together is more than that of S
 - II. The total age of R and K together is less than that of S.
- A. Data in statement I alone is sufficient.
 - B. Data in statement II alone is sufficient.
 - C. Data in both statements together is sufficient.
 - D. Data in both statements together is not sufficient.
 - E. None of these
- Q3.** Given that in a family: [+1]
[-0]
- I. There are three fathers.
 - II. There are five children.
 - III. One pair of brothers and one pair of sisters.
- What is the minimum number of possible members in the family?
- A. 8
 - B. 7
 - C. 6
 - D. 5
 - E. None of these
- Q4.** Take the given statement(s) as true and decide which of the conclusion logically follows from the statements. [+1]
[-0]
- Statements : All actors are Musicians.
No musician is a Singer.
Some Singers are Dancers.
Some Dancers are Musicians.
- Conclusions : I. Some Actors are Singers.
II. Some Dancers are Actors.
III. No Actor is a Singer.
- A. Only conclusion I follows.
 - B. Only conclusion III follows.
 - C. Exactly one of conclusion I, II follows.
 - D. Only conclusion II follows.
 - E. None of these

- Q5.** If MOBILE is coded as DFBICE, then CHARGE is coded as [+1]
[-0]
- A. CHBXQE
 - B. CLARTE
 - C. CHAIGE
 - D. CHIAEF
 - E. None of these
- Q6.** I left home for bringing milk between 7am and 8am. The angle between the hour-hand and the minute hand was 90° . I returned home between 7am and 8am. Then also the angle between the minute-hand and hour-hand was 90° . At what time (nearest to second) did I leave and return home? [+1]
[-0]
- A. 7h 18m 35s and 7h 51m 24s
 - B. 7h 19m 24s and 7h 52m 14s
 - C. 7h 20m 42s and 7h 53m 11s
 - D. 7h 21m 49s and 7h 54m 33s
 - E. None of these
- Q7.** A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting next to E. Who is sitting on the left end of the bench, C is on the second position from the right. A is to the right of B and E. Counting from the left, in which position is A sitting? [+1]
[-0]
- A. 2nd
 - B. 3rd
 - C. 5th
 - D. Cannot be determined
 - E. None of these
- Q8.** Manvi facing towards rising sun turned to her left and walks 60m. She then turned to West and walked for 15m. Then she turned towards left at an angle of 45° and reached 95m from her original position. How much total distance did she travel? [+1]
[-0]
- A. 95m
 - B. 115m
 - C. 155m
 - D. 175m
 - E. None of these
- Q9.** A watch gains 10 seconds in every 3min. It was set right at 9am. In the evening of the same day, when the watch indicates half past 6'O clock, the true time is [+1]
[-0]
- A. 5:30:00 pm
 - B. 5:48:10 pm
 - C. 5:58:20 pm
 - D. 6:08:20 pm
 - E. None of these

Q10. Five friends decided to play a game of badminton. Each of the five plays against every other friend. The winner gets two points for each game he or she wins and the loser gets zero. Then which of the following cannot represent the scores of five friends?

[+1]
[-0]

- A. 4,4,4,4,4
- B. 6,4,4,4,2
- C. 8,8,2,2,0
- D. 6,6,4,2,2
- E. None of these

Q11. The third day before 1st January 2019 was Saturday. Which day will the fourth day of March 2020 be?

[+1]
[-0]

- A. Friday
- B. Saturday
- C. Wednesday
- D. Thursday
- E. None of these

Q12. Complete the given letter analogy.

[+1]
[-0]

LTFQIW : YGSJVD :: DOIYKV : ?

- A. QBVIXL
- B. WLRBCI
- C. QLVBXE
- D. QBVLXJ
- E. None of these

Q13. There are 20 steps to go to the first floor of a building from the ground floor.

[+1]
[-0]

A child starts climbing up from the first step of the ground level. Mother starts coming down from the fourth step from the floor level of the first floor. If both have started at the same time with same speed. At which step would they meet counting from the first step from the floor level of the first floor?

- A. 9
- B. 10
- C. 11
- D. 12
- E. None of these

Q14- Answer the question based on the basis of the information given below.

[+1]
[-0]

17. Each of the six Nurses – Sushmita, Sukhmani, Sulochna, Sulekha, Sumitra and Sunanda works on exactly one day of a week. Starting from Monday to Saturday, each nurse works for different number of hours in a day up to a maximum of 10 hours. It is also known that :-

- (i) Sushmita and Sulekha work on Tuesday and Thursday respectively.
- (ii) The number of hours for which Sulochna acts is more than that of Sumitra, and the number of hours for which Sukhmani works is less than that of Sunanda.
- (iii) The number of hours of which working is done by any of the nurses on every alternate day starting from Tuesday consists of multiples of three in decreasing order.
- (iv) The number of hours for which working is done on every alternate day starting Monday consists of three prime numbers in increasing order.
- (v) Sulochana and Sukhmani work on two consecutive days.

Q14: Which of the following is a correct combination of the day, nurse and number of hours for which work is done? [+1] [-0]

- A. Tuesday – Sumitra - 2
- B. Saturday – Sukhmani - 7
- C. Monday – Sumitra - 5
- D. Tuesday – Sushmita - 9
- E. Saturday – Sulochna – 3

Q15: For how many hours does Sukhmani work? [+1] [-0]

- A. 2
- B. 3
- C. 5
- D. 7
- E. None of these

Q16: Which of the following nurse works for more number of hours than Sunanda? [+1] [-0]

- A. only Sushmita
- B. only Sulochna
- C. only Sushmita and Sulekha
- D. Sushmita, Sulochna and Sulekha
- E. None of these

Q17: On which two days of the week do Sumitra and Sukhmani works respectively? [+1] [-0]

- A. Monday and Friday
- B. Monday and Saturday
- C. Tuesday and Friday
- D. Tuesday and Saturday
- E. None of these

Q18- Read the given information and answer the question.

[+1]
[-0]

19.

A is the father of C, But C is not his son.
E is the daughter of C, F is the spouse of A.
B is the brother of C, D is the son of B.
G is the spouse of B, H is the father of G

Q18: Who is the grandmother of D?

[+1] [-0]

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

Q19: Who is the son of F?

[+1] [-0]

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

Q20. Find odd one out.

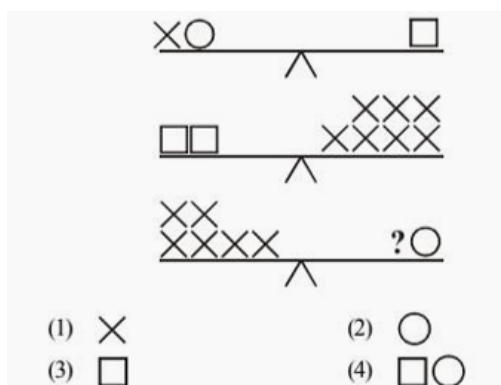
[+1]
[-0]

MEWGN , PBQTX , DRYSN , CGHKV , HLWZP

- A. MEWGN
- B. PBQTX
- C. DRYSN
- D. CGHKV
- E. HLWZP

Q21. Which symbol replaces the '?'. Figure below represent a balance.(Scroll down to view complete question)

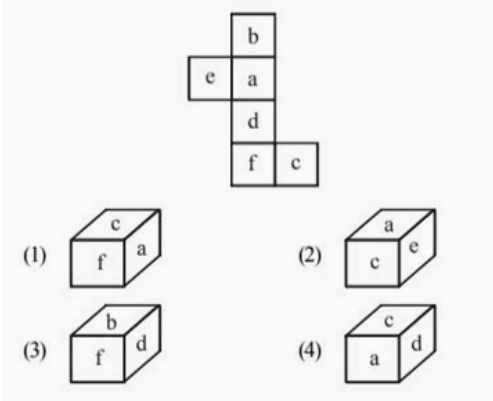
[+1]
[-0]



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

Q22. If the given net is folded a form a box, which among the boxes below will be formed?

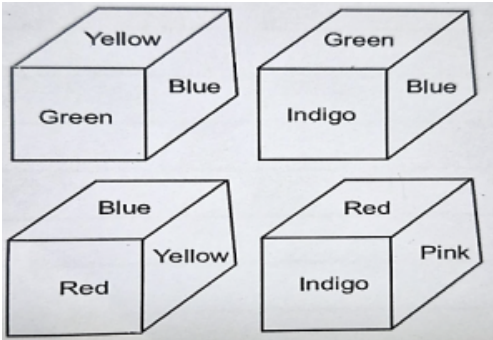
[+1]
[-0]



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

Q23. On the basis of the four positions of a dice given below find the colour of the face opposite 'Yellow'.

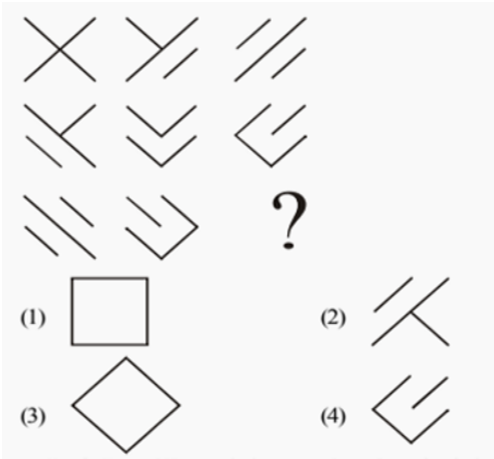
[+1]
[-0]



- A. Indigo
- B. Red
- C. Pink
- D. Blue
- E. None of these

Q24. Complete the matrix by choosing the correct option.

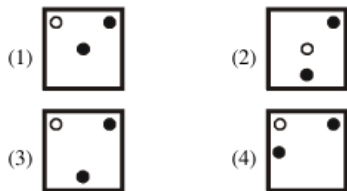
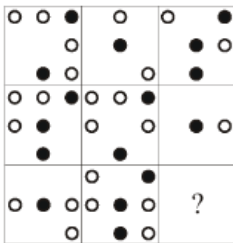
[+1]
[-0]



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

Q25. In the following question, find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix?

[+1]
[-0]



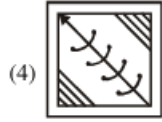
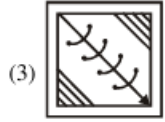
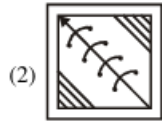
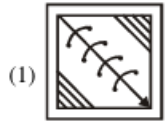
- A. (1)
- B. (2)
- C. (3)
- D. (4)
- E. None of these

Q26. Find the water image of given figure (X).

[+1]
[-0]



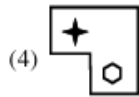
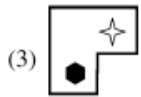
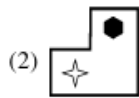
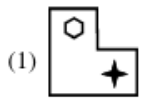
(X)



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

Q27. Complete the given analogy, by choosing the correct answer from the given alternatives.

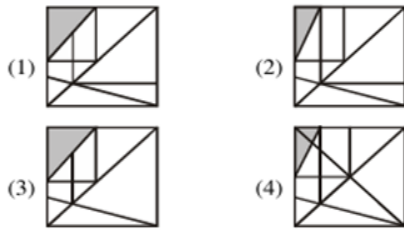
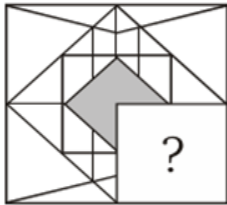
[+1]
[-0]



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

Q28. Identify the figure that completes the pattern.

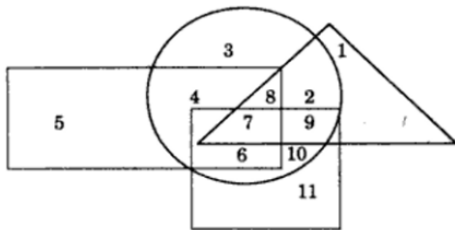
[+1]
[-0]



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

Q29- In the following figure rectangles, squares, circles and triangles represent the regions of wheat, gram, maize and rice cultivation respectively. On the basis of the figure answer the given question.

[+1]
[-0]



Q29: Which area is cultivated by maize only?

[+1] [-0]

- A. 10
- B. 2
- C. 3
- D. 4
- E. None of these

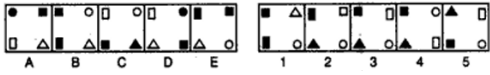
Q30: Which area is cultivated by rice and maize and nothing else?

[+1] [-0]

- A. 9
- B. 8
- C. 2
- D. 7
- E. None of these

Q31. Choose the correct option to continue the series.

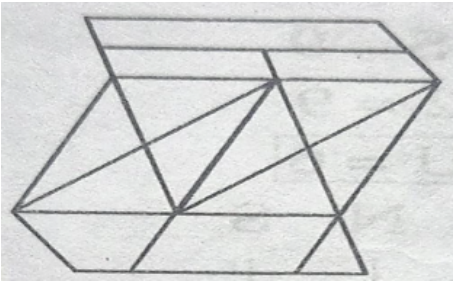
[+1]
[-0]



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

Q32. How many parallelograms are there in the given figure?

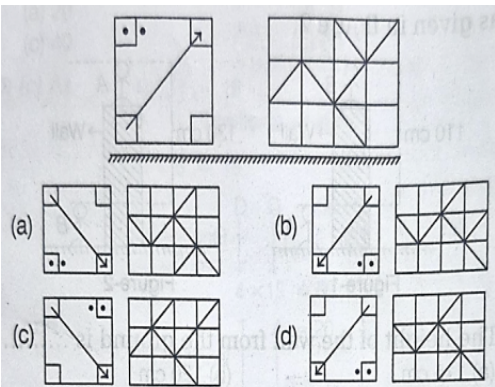
[+1]
[-0]



- A. 13
- B. 14
- C. 15
- D. 16
- E. None of these

Q33. Choose the correct mirror image of the following figures if the mirror is placed as shown.

[+1]
[-0]



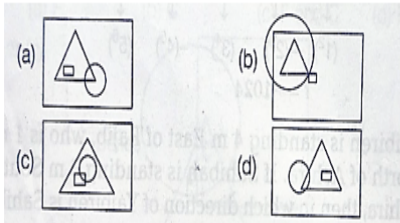
- A. (a)
- B. (b)
- C. (c)
- D. (d)
- E. None of these

Q34. The following figures represent information given against them.(Scroll down to view complete question)

[+1]
[-0]

- Total number of students who applied for Board Examination.
- Total number of students who actually appeared at Board Examination.
- Total number of urban students who appeared at Board Examination.
- Total number of students who qualified at Board Examination.

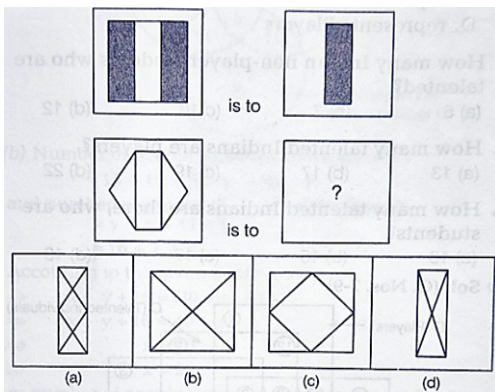
Based on the above information which of the following figures represents the above facts?



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

Q35. Choose the correct option which will complete the second pair in the same way as first pair?

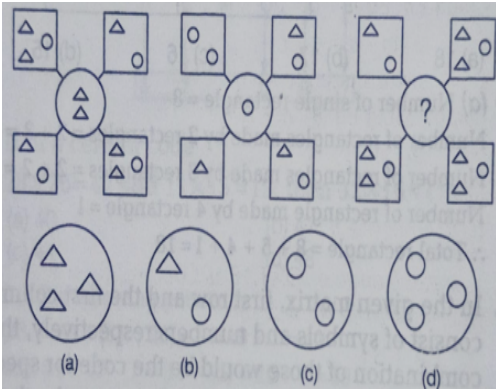
[+1]
[-0]



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

Q36. Observe the trends in figures given below and find the missing character.

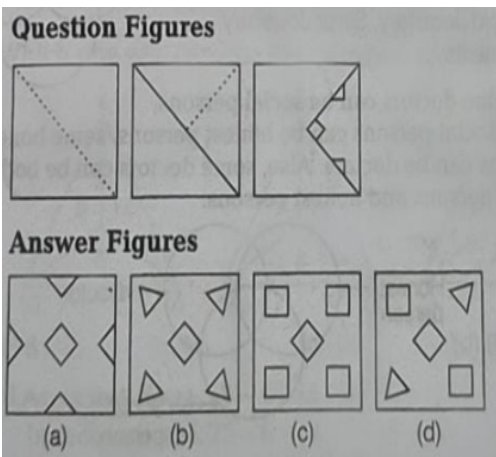
[+1]
[-0]



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

Q37. A paper is folded as shown in the question figures and then cut. Choose the correct option from the answer figures which appears the same when paper is unfolded.

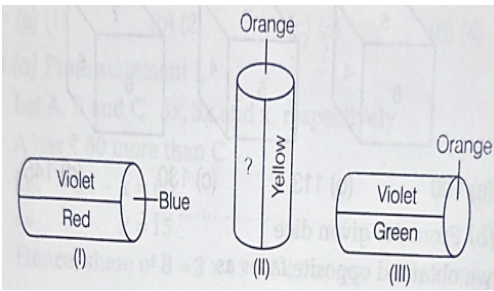
[+1]
[-0]



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

Q38. A cylinder is painted in 6 colours-Violet, Red, Blue, Green, Yellow and orange. The three positions of the cylinders are as follows. Looking at these figures, identify the correct colour in place of '?'.

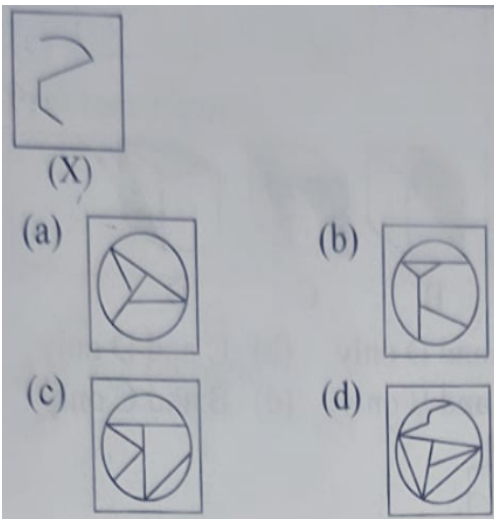
[+1]
[-0]



- A. Orange
- B. Blue
- C. Green
- D. Violet
- E. None of these

Q39. In which of the given options figure (X) is exactly embedded?

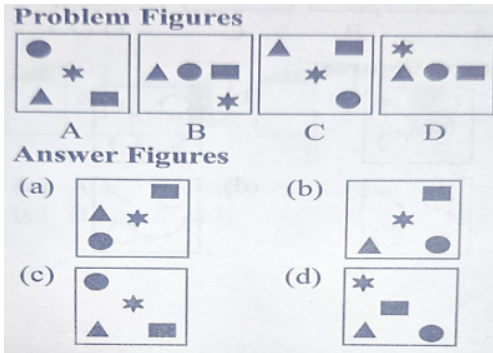
[+1]
[-0]



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

Q40. Choose the correct option to continue the series. (Scroll down to view complete question)

[+1]
[-0]



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

Q41. If '15+10 means 5' ; ' 6x3 means 9' ; '8÷4 means 32' ; '12-2 means 6' ; then what will be the value of $27 + 81 - 9 \times 6$?

[+1]
[-0]

- A. 36
- B. 24
- C. 12
- D. 6
- E. None of these

Q42. Which number will replace the '?' in the following sequence?

[+1]
[-0]

5, 7, 14, 24, 42, ?, 119

- A. 71
- B. 67
- C. 65
- D. 63
- E. None of these

Q43. Find the missing values in place of the question marks in the given pattern.

[+1]
[-0]



- A. I, 13
- B. N, 10
- C. M, 13
- D. Z, 18
- E. None of these

Q44. What will be the missing number in the given series?

[+1]
[-0]

1332, 732, 348,, 36, 12

- A. 32
- B. 132
- C. 148
- D. 216
- E. None of these

Q45. In the given equation, which two numbers in the expression on the left hand side will be interchanged to form a correct equation?

[+1]
[-0]

$$5 + 4 \times 8 \div 12 - 3 = 3$$

- A. (3, 5)
- B. (4, 12)
- C. (3, 4)
- D. (8, 5)
- E. None of these

Q46. If 63578 is to 1415, 56732 is to 185, and 34124 is to 86, then 72648 is to _____.

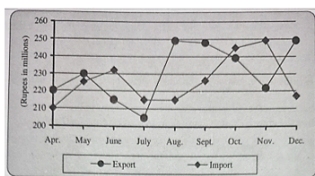
[+1]
[-0]

- A. 1215
- B. 1415
- C. 1512
- D. 1514
- E. None of these

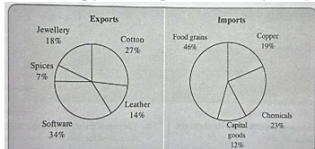
Q47- Answer the question based on the given graphs.

[+1]
[-0]

50. The following line graph shows the export and imports of India from April to December 2008.



The following pie charts give the break-up of export and import in May 2008.



Q47: What was the import surplus over the period April to December 2008 (rupees in millions)? [+1] [-0]

- A. -32
- B. -40
- C. 53
- D. 43
- E. None of these

Q48: If the export earnings of jewellery and leather were used to import food grains in May, what percentage of food grains export could not be paid for? [+1] [-0]

- A. 24%
- B. 26%
- C. 28.88%
- D. 31%
- E. None of these

Q49: If, in June, a new export head electronic goods was added accounting for 7.25% of exports, the rest were in the same proportion as their share of exports in May. What was the value of cotton exported in June (rupees in millions)? [+1] [-0]

- A. 50 millions
- B. 53.8 millions
- C. 56 millions
- D. 59 millions
- E. None of these

Q50: If, the chemical imports in May were to be paid for by total jewellery exports and part by export of spices, what percentage of spice exports would go towards import of chemicals?

[+1] [-0]

- A. 45%
- B. 60%
- C. 58%
- D. 56%
- E. 64.28%



CLASS / GRADE

Class 12

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

◆ ALL IOF OLYMPIAD PROGRAMMES ◆

