ENGLISH - HINDI

CODE

MENTAL ABILITY TEST
(For Students of Class X)

Time: 120 Minutes **Max. Marks: 100**

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you open the test-booklet.

1. Answers are to be given on a **separate OMR sheet**.

2. Please **follow the instructions** given on the **OMR sheet** for marking the answers.

3. Write your **eight-digit roll number** as allotted to you in the admission card very clearly on the **test-booklet** and darken the appropriate circles on the **OMR sheet** as per instructions given.

4. Write down and darken **test-booklet number** in the appropriate circles on the **OMR sheet** as per instructions given.

5. There are **100 questions** in this test. All are compulsory.

6. Since the time allotted for this question paper is very limited you should make the best use of it by not spending too much time on any one question.

7. **Rough work** can be done **anywhere** in the test-booklet but not on the **OMR sheet**.

8. Each correct answer will be awarded one mark.

9. **THERE WILL BE NO NEGATIVE MARKING.**

10. Please return only the OMR sheet to the invigilator after the test.

11. The English version of the question paper will be considered as final in case of any dispute arising out of variation in translated version.

PLEASE TURN TO THE NEXT PAGE AND START YOUR WORK

बौद्धिक योग्यता परीक्षा
(कक्षा X के विद्यार्थियों के लिए)

समय: 120 मिनट **अधिकतम अंक: 100**

परीक्षार्थियों के लिए अनुदेश

प्रश्न-पुस्तिका खोलने से पहले, निम्नलिखित अनुदेशों को ध्यान से पढ़िए।

1. उत्तर एक अलग ओएमआर-पत्र पर देने है।

2. कृपया उत्तर चिह्नित करने के लिए ओएमआर-पत्र पर दिए गए अनुदेशों का अनुपालन कीजिए।

3. दिए गए निर्देशों के अनुसार आपके प्रवेश-पत्र पर दिए गए अपने आठ-अंकीय रोल नंबर को प्रश्न-पुस्तिका और ओएमआर-पत्र पर बिलकुल स्पष्ट रूप से लिखिए और उपयुक्त गोलों को काला कीजिए।

4. दिए गए निर्देशों के अनुसार ओएमआर-पत्र पर प्रश्न-पुस्तिका संख्या लिखिए और उपयुक्त गोलों को काला कीजिए।

5. इस परीक्षा में 100 प्रश्न है। सभी प्रश्न अनिवार्य है।

6. चूँकि इस प्रश्न-पत्र के लिए निर्धारित समय बहुत सीमित है, इसीलिए इसका सर्वोत्तम उपयोग कीजिए और किसी एक प्रश्न पर बहुत अधिक समय न लगाइए।

7. रफ कार्य प्रश्न-पुस्तिका में कहीं भी किया जा सकता है, किंतु ओएमआर-पत्र/अलग कागज पर नहीं।

8. प्रत्येक सही उत्तर के लिए एक अंक प्रदान किया जाएगा।

9. गलत उत्तर के लिए कोई अंक काटा नहीं जाएगा।

10. कृपया परीक्षा के पश्चात केवल ओएमआर-पत्र ही निरीक्षक को वापस कीजिए।

11. अनुवादित संस्करण में अंतर से उठे किसी भी विवाद की स्थिति में, प्रश्न-पत्र के अंग्रेजी संस्करण को निर्णायक माना जाएगा।

कृपया पृष्ठ पलटिए और अपना कार्य आरंभ कीजिए।

MENTAL ABILITY TEST STAGE-2
14 February 2021

1. If MENTAL = 390, ABILITY = 546, REASONING = 918, THEN COMPETENCY = ?
   (1) 782 **(2)** 842 **(3)** 1190 **(4)** 1340

2. Which number replaces the question mark in the given figure?

2	1
4	21

8	3
5	98

6	?
3	94

   (1) 4 **(2)** 5 **(3)** 7 **(4)** 9

Direction: (Question 3-4)
The following questions are based on the information given below?
- A cuboid shaped wooden block has 4 inches length, 3 inches breadth and 6 inches height.
- Two faces measuring 6 inches × 4 inches are coloured in black.
- Two faces measuring 4 inches × 3 inches are coloured in red.
- Two faces measuring 6 inches × 3 inches are coloured in yellow.
- Now the block is divided into small cubes of side 1 inch each.

3. How many small cubes will have no faces coloured?
   (1) 8 **(2)** 12 **(3)** 36 **(4)** 18

4. How many small cubes will have at least two faces coloured, one with red and another with yellow?
   (1) 4 **(2)** 8 **(3)** 12 **(4)** 24

5. In a certain code 34 means **'project work'**. What is the meaning of 4 and 3 in that code?
   Based on the following statements, select the correct option:
   Statement I: '173' means **'completed project on time'**.
   Statement II: '640' means **'received award for the hard work'**.
   (1) The data in statement I alone are sufficient to answer the question.
   (2) The date in statement II alone are sufficient to answer the question.
   (3) The data in both the statements together are sufficient to answer the question.
   (4) The data even in both the statements together are not sufficient to answer the question.

6. **Fact 1:** All tortoises like to jump.
   Fact 2: Some tortoises like to fly.
   Fact 3: Some tortoises look like their followers.
   If the first three statements are facts, which of the following statements must also be a fact?
   I. All tortoises who like to fly look like their followers.
   II. Tortoises who like to fly also like to jump.
   III. Tortoises who like to jump do not look like their followers.
   (1) I only **(2)** II only **(3)** I and II only **(4)** II and III only

7. At what time between 3 PM and 4 PM the angle between the minute and hour hands be nine degrees, the minute hand being ahead of the hour hand?
   (1) 3 h 15 m 45 s **(2)** 3 h 16 m **(3)** 3 h 16 m 30 s **(4)** 3 h 18 m

8. Which expression will replace the question mark?
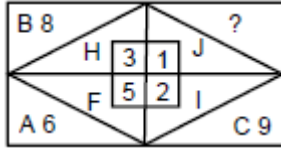
(1)	E 7	**(2)**	D 10	**(3)**	D 7	**(4)**	E 10

9. The digits/ numbers from 1 to 12 of the clock dial are replaced by the letters of the English alphabet. The replacement starts with letter 'C' but vowels and immediate next consonants of vowel are not included in the replacement. The classes in the school start at N : T and last till a time when the minute hand is at K and the hour hand between S and T, very slightly ahead of S. Five periods of equal duration are held during this interval. The break of 7 minutes is given to students after 1st period and duration of break increases by 2 minutes after each period. The exact duration of a period in minutes is:

(1)	32	**(2)**	33	**(3)**	34	**(4)**	35

10. If **TEACHER** is coded as **KBADFBM, MATURE** is codded as **ALONEG,** then the code **BOARD** will be _____.

(1)	**AMDJC**	**(2)**	**MADKC**	**(3)**	**MACKD**	**(4)**	**AMCJD**

11. In a performing Arts competition, there are six participants M, P, B, K, L and V. It is given that M and P are good at dancing and acting. B and K are good at singing and playing tabla. L and M are good at tabla but not good at singing. P and V are good at playing Guitar and also good at singing. Who among them is/are good at dancing, singing, playing Guitar and acting?

(1)	M and P	**(2)**	Only P	**(3)**	Only V	**(4)**	Only B

12. What is the total number of squares in the given figure?
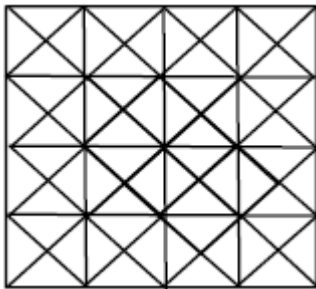
(1)	62	**(2)**	72	**(3)**	82	**(4)**	92

13. In a certain coding system if

$25 + 10 \times 4 = 19$

$10 \div 3 - 3 = 10$

Then the value of

$16 \times 5 + 40 - 10 \div 2 =$

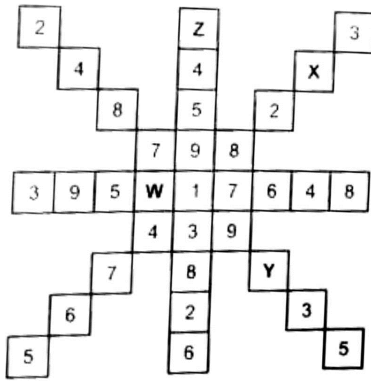|							
(1)	10	**(2)**	11	**(3)**	12	**(4)**	13

14. In the given sequence, which symbol comes five symbols before the symbol which comes nine symbols after the second appearance of the symbol which occur four times in the sequence?

$1 > 9 \in < L * M 2 N > Q A \div S 8 > 4 U \$ V @ A > X 2 Q B = D < Z$

(1)	A	**(2)**	S	**(3)**	@	**(4)**	8

15. Find the values of W, X, Y and Z in the given figure.

| (1) | 2, 9, 6, 7 | (2) | 3, 5, 1, 5 | (3) | 4, 1, 8, 7 | (4) | 8, 1, 2, 5 |

Direction : (Question 16-17)

In the following question, the symbols @, $, #, © and % are used with the following meaning as illustrated below:

P $ Q means 'P' is not smaller then 'Q'.

P © Q means 'P' is neither greater nor equal to Q.

P # Q means 'P' is neither smaller nor equal to Q.

P % Q means 'P' is not greater than Q.

P @ Q means 'P' is neither greater or smaller than Q.

Assuming the given statements to be true, find which of the conclusions given below is definitely true?

16. **Statement:** T % R, R $ M, M @ D, D © H

Conclusions :

I. D % R II. H # R III. T © M IV. T % D

| (1) | Only I | (2) | I and III | (3) | I and IV | (4) | III and IV |

17. **Statement:** M @ B, B #N, N $ R, R © K

Conclusions :

I. K © R II. R © B III. M $ R IV. N © M

| (1) | I and III | (2) | I, II and III | (3) | II, III and IV | (4) | I, III and IV |

Direction : (Question 18-20)

Study the diagram and answer the questions.
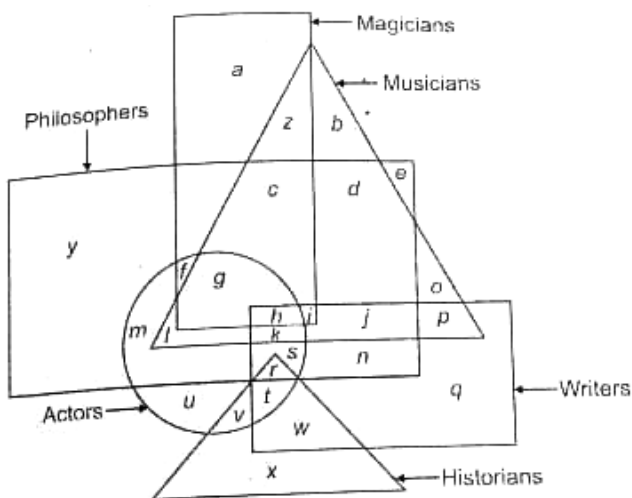
18. Identify the region which represents philosophers who are musicians and writers.

    (1) $h + i + j + k$ **(2)** $h + j$ **(3)** $k + j$ **(4)** j

19. How many actors are magicians?

    (1) h **(2)** $g + h$ **(3)** $f + g + h$ **(4)** $f + g - h$

20. How many actors are also philosophers but not historians or musicians?

    (1) $l + k$ **(2)** $g + h + k$ **(3)** $m + f + l + k$ **(4)** $m + f + s$

21. Bupen's birthday is on the 13th of June and Mainu's birthday is on 23rd of April. If in a particular year, Mainu's birthday was on Monday, what will be the day on Bhupen's birthday in the same year?

    (1) Tuesday   **(2)** Wednesday   **(3)** Thursday   **(4)** Friday

Direction : (Questions 22-24)

Study the following information and answer the questions below :

Dr. Ashutosh is available at a clinic from 12 Noon to 4 PM on Tuesday, Thursday and Sunday.

Dr. Dhanwantri is available at the same clinic from 10 AM to 2 PM on Monday, Thursday, Friday and Sunday.

Dr. Shehnaz is available at the same clinic between 9 AM to 12:30 PM on Monday, Wednesday and Thursday, and 2 PM to 4 PM on Friday, Saturday and Sunday.

22. At what time duration of a week are all the doctors available at the clinic ?

    (1) Sunday for 3 hrs   **(2)** Thursday for $\frac{1}{2}$ hr

    (3) Thursday for 1 hr   **(4)** Sunday for 1 hr

23. On how many days and hours, Dr. Ashutosh and Dr. Shehnaz are available at the same time?

    (1) $1, 2\frac{1}{2}$ **(2)** 1, 2   **(3)** $2, 2\frac{1}{2}$ **(4)** 2, 2

24. For how many hours in a week, Dr. Dhanwantri and Dr. Shehnaz are together available at the same time ?

    (1) $5\frac{1}{2}$ **(2)** 6   **(3)** 5   **(4)** $2\frac{1}{2}$

25. In a certain school, 62% of candidates qualified all the three subjects, namely English, Mathematics and Social Science. the following diagram gives the number of candidates who are not qualified in different subjects. What is the percentage of candidates who are not qualified in at least two subjects?
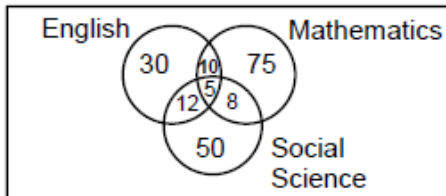
    (1) 2.63   **(2)** 6.00   **(3)** 7.00   **(4)** 18.42

26. Samungou's mother is the only daughter of Juhi's father. How is Juhi's husband related to Samungou?

    (1) Brother   **(2)** Father   **(3)** Son   **(4)** Uncle

27. A matrix of certain characters is given in the following. These characters follow a certain trend, row-wise or column wise. Find out this pattern and choose the missing character.
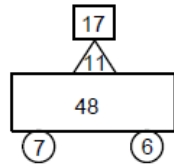
17	21	12	8
33	29	38	42
41	37	?	50

    (1) 12   **(2)** 42   **(3)** 46   **(4)** 50

28. Find the value of # in the figure given below:

13		17		#
4		11		13
49		48		44
⑤ ④		⑦ ⑥		⑥ ⑧
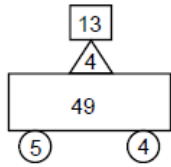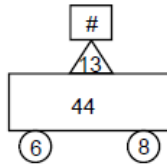
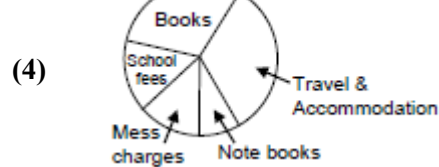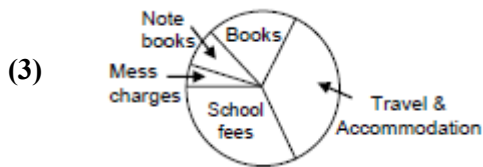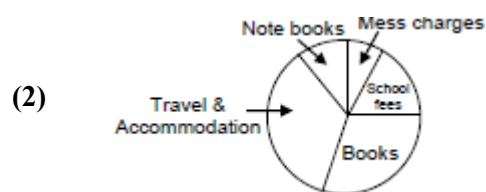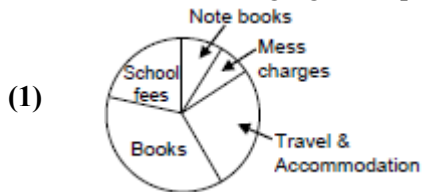**(1)** 10   **(2)** 15   **(3)** 19   **(4)** 21

Direction : (Question 29)

The yearly percentage expenditure of a school student on various items is shown in table given below :

Items	Expenditure in percentage
Books	30
Note Books	10
School Fee	20
Mess Charges	5
Travel & Accommodation	35

29. Which of the following figures represent the above data ?

(1) Note books, Mess charges, School fees, Books, Travel & Accommodation

(2) Note books, Mess charges, School fees, Travel & Accommodation, Books

(3) Note books, Books, Mess charges, School fees, Travel & Accommodation

(4) Books, School fees, Travel & Accommodation, Mess charges, Note books

30. In an examination students are graded with four grades namely A, B, C and D and 72 students of the school secured A grade. The ratio of students who secured A grade to students with D grade is 2 : 5. Out of the total students 30% students secured B grade and 40% secured C grade. What is the total number of students in the school?

(1) 840   **(2)** 600   **(3)** 420   **(4)** 360

31. Given below are three statements followed by four alternatives. Select the alternative which follows logically, from the given statements.

I. Only boys can register for a competition.

II. Many of the competitors are toppers.

III. All the names of toppers are marked with green colour.

(1) All toppers are competitors.

(2) Some of the competitors are boys.

(3) Some of the competitors are marked with green colour.

(4) Only the names of boys are marked with green colour.

32. Find the missing number of in the given sequence.

1, 2, 2, 4,__, 4, 2

(1)   1   **(2)**   2   **(3)**   3   **(4)**   4

33. Which figure among the given options will appropriately replace the question mark?
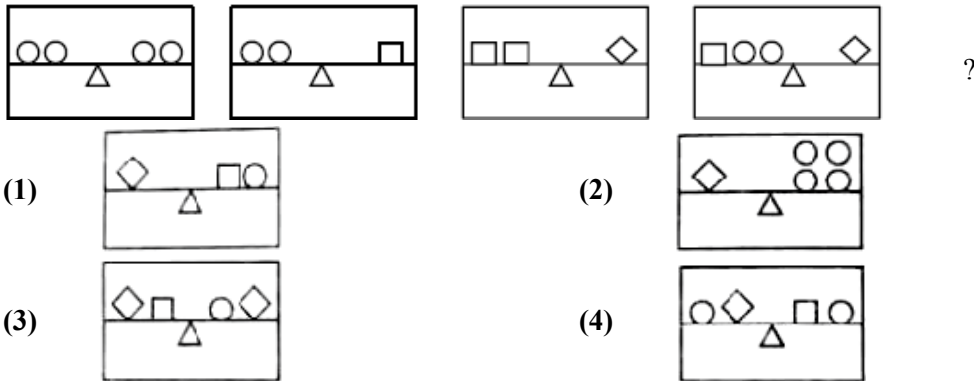
34. Given below are 9 pictures, A, B, C, D, E, F, G, H and I. On the basis of similar relationship, classify the pictures into three groups. Which among the given options represents the suitable group combination?
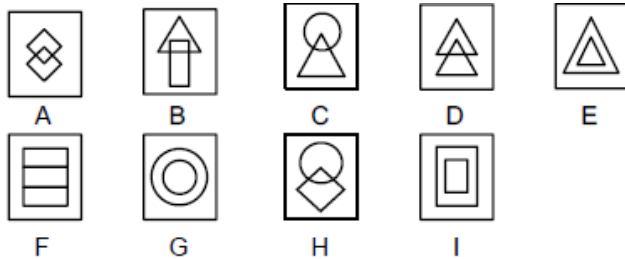
(1)   (A, D, F) ; (B, C, H) ; (E, G, I)   **(2)**   (A, D, H) ; (B, C, F) ; (E, G, I)

(3)   (A, D, F) ; (B, C, H) ; (E, G, I)   **(4)**   (B, C, H) ; (D, E, F) ; (A, G, I)

35. If $-$ means $\div$, $+$ means $\times$, $\div$ mean $-$, $\times$ means $+$, then which of the following is correct?

(A) $36 - 12 \times 6 \div 3 + 4 = 60$ (B) $52 \div 4 + 5 \times 15 - 3 = 37$

(C) $36 \times 4 - 12 + 5 \div 3 = 420$ (D) $43 \times 7 + 5 + 4 - 8 = 25$

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

36. The following figure represents numbers of students in each of the clubs in a school.
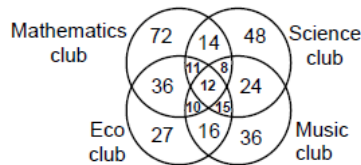
Find the number of the students representing at least two clubs of the school.

(1)   90   **(2)**   134   **(3)**   146   **(4)**   183

37. The ratio of boys and girls in a school for the last five academic years are given in the following graph. If the number of girls in 2016-17 is half of that in 2017-18, what is the ratio of boys in 2017-18 to boys in 2016-17?
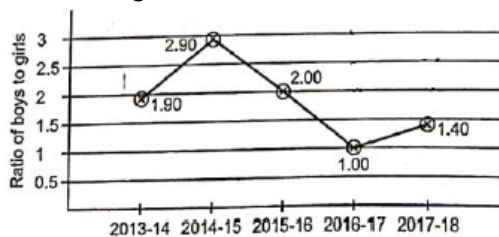
(1)   1 : 1   **(2)**   3 : 2   **(3)**   14 : 5   **(4)**   7 : 3

38. A manufacturer of tennis balls is claimed that their balls are the best as it (a ball) would rise constantly 10% of the height from which it was dropped. If the ball is dropped from 27 feet, how much approximately in feet the ball travels (in feet) before coming to rest ?

(1) 32.4 (2) 33 (3) 34.6 (4) 36

39. Find the values of X and Y.

9		16		49	
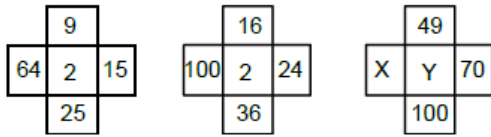
(1) 289, 3 (2) 289, 5 (3) 121, 7 (4) 121, 4

40. Which is the missing term of the following sequence ?

002 B, 009 I, 028 J, _____ , 126 I

(1) 048 L (2) 065 K (3) 172 G (4) 186 N

41. How many triangle are there in the given figure?

(1) 21 (2) 22 (3) 23 (4) 24

42. In a class of 60 students, where girls and boys are in the ratio 2 : 3, the boy Kartik' is ranked 17th from the top. If there are 9 girls ahead of Kartik, what is the ratio of number of girls and boys after the rank position of Kartik?

(1) 9:27 (2) 15: 28 (3) 16:27 (4) 16 : 28

43. Select the pair that has the same analogy as given pair 9876 : 12234567

(1) 34562:89776 (2) 1234:122345 (3) 654321:922346 (4) 9993:8886

44. A square piece of paper is folded as shown, punched and unfolded. Which of the alternative figures resembles the unfolded paper?
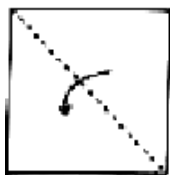
45. If △ ∕ = 5
∕ L △ = 7
∕ L □ △ = 15
□ ⬠ = 24,

Then, 23 is given by

(1) L □ ⬠ ∕ (2) L △ □ ⬠ (3) □ ∕ △ L (4) L △ ∕ ⬠

46. Complete the following figural series by choosing the correct answer from the given alternatives.

(1)   (2)   (3)   (4)
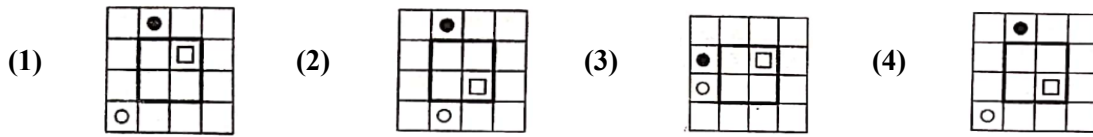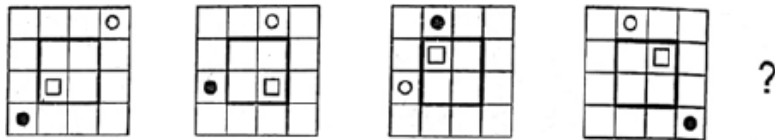
47. A problem figure is given below. When it is rotated, it fits into one of the option figures. Identify the option figure.

(1)   (2)   (3)   (4)
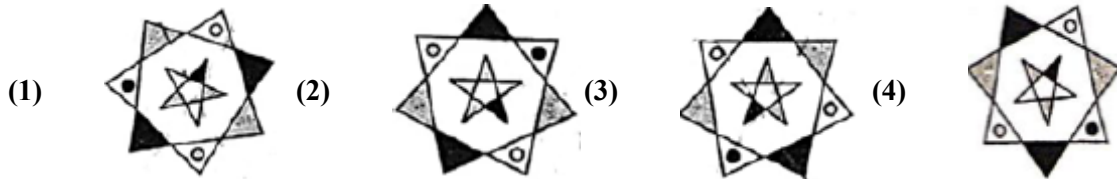
48. The problem figure given below is a figure matrix. Complete the matrix with suitable option figure.

(1)   (2)   (3)   (4)
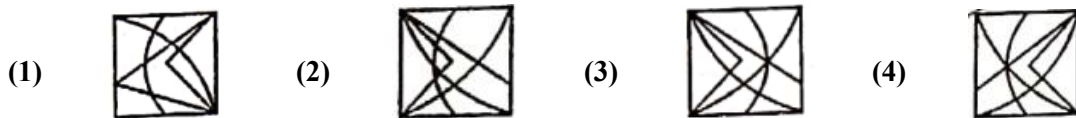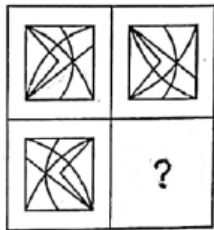
49. Nine figures are given below. Identify the correct group of classification.
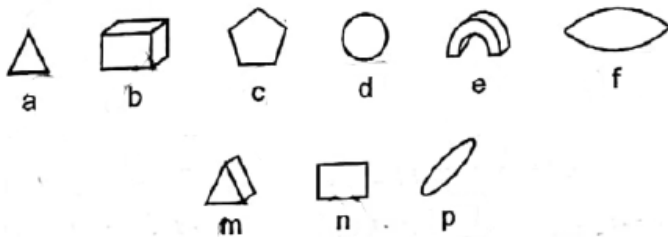
(1)   a, d, m; b, e, n; c, f, p   (2)   a, b, m; c, d, n; e, f, p

(3)   a, d, f; b, e, p; c, m, n   (4)   a, c, n; b, e, m; d, f, p

50. An identity is given below through some symbols. In the options these symbols are decoded. Identify the correct option of which the signs satisfy the given identity.

12·○ 13 □ 15 Δ 5*180^21

(1)   ^ is −, * is =, Δ is ÷, □ is +, ○ is ×   (2)   ○ is −, ^ is =, * is +, Δ is ÷, □ is ×

(3)   □ is −, ○ is =, ^ is ×, * is +, Δ is ÷   (4)   Δ is ÷, □ is =, ○ is −, ^ is +, * is ×

51. Complete the following figural series by choosing the correct answer from the given alternatives.

(1)   **(2)**   **(3)**   **(4)**
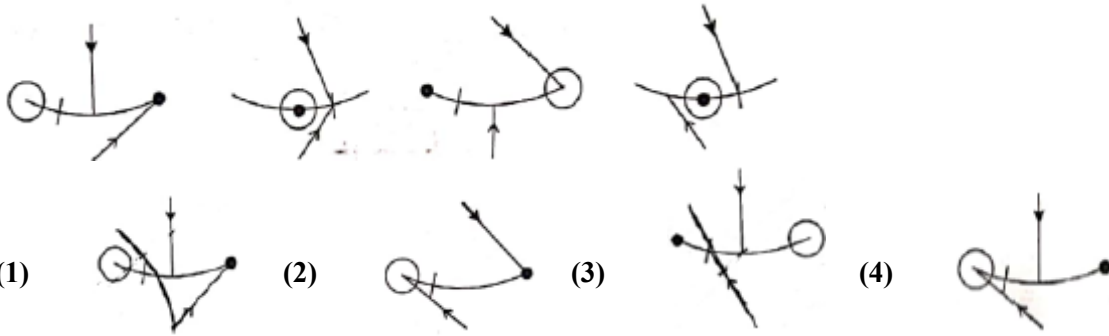
52. A pentagonal figure is given below. Identify which two fo the pieces among A, B, C, D and E given below will NOT be required to complete the pentagonal figure.
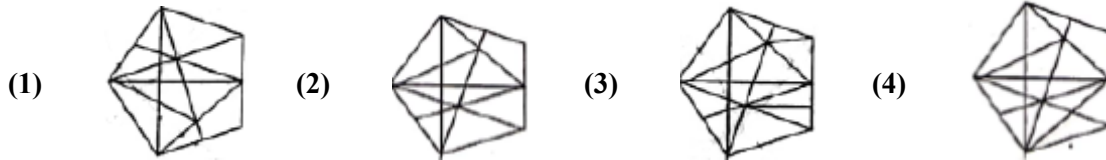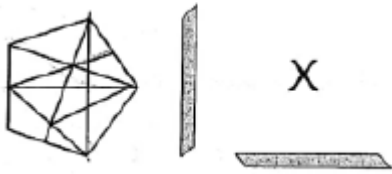
| A | B | C | D | E |
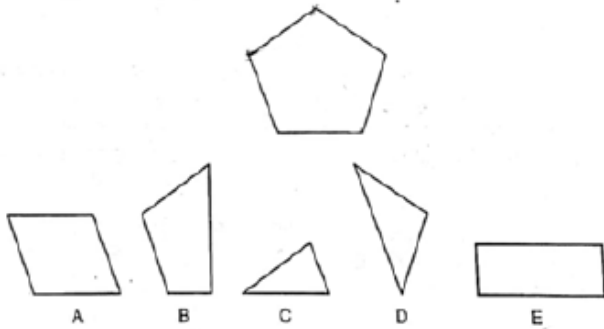
(1) Both A and C   **(2)** Both B and D   **(3)** Both A and D   **(4)** Both B and E

53. A problem figure is given below. When it is folded into a cube, which one of the cubes will be formed from the given alternatives?

(1)   **(2)**   **(3)**   **(4)**
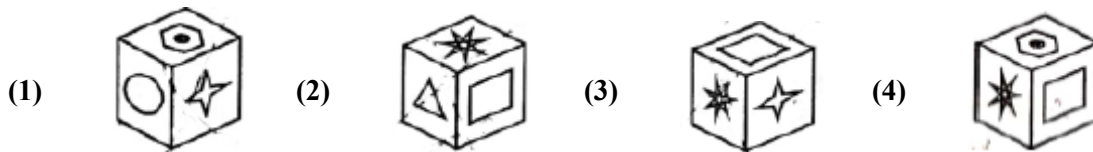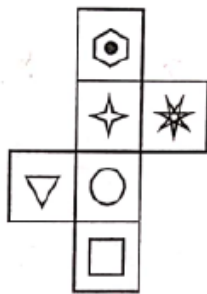
54. A problem figure is given of which the mirror image is X and the water image of X is Y. Identify the appearance of Y from the given alternative figures:

(1) **(2)** **(3)** **(4)**

55. A hexagonal figure below. Identify which among the pieces A, B, C, D, E and F given below will NOT be required to complete the hexagonal figure.
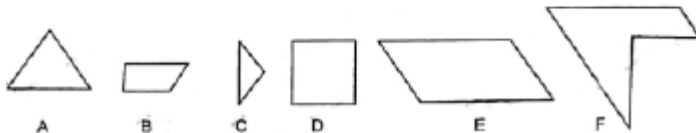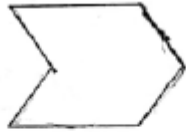
(1) B **(2)** D **(3)** E **(4)** F

56. Which one of the given rules the number 70 follows?

(1) $n^3 + 4n$ **(2)** $2n^3 + 2n$ **(3)** $n^3 + 3n / 2$ **(4)** $n^3 + 5n$

57. What are the values of x and y in the given matrix?

	C_1	C_2	C_3
R_1	9	x	102
R_2	12	53	140
R_3	16	63	y
R_4	13	50	118

(1) 25, 136 **(2)** 30, 148 **(3)** 35, 128 **(4)** 40, 156

58. The numbers are arranged in a certain pattern. The values of a, b and c respectively in the pattern are:

		6	17	19	11	4			
	7	a	14	24	10	5	9		
1	6	8	18	34	b	9	7	3	
	5	2	13	21	15	2	5		
		5	16	20	12	c			

(1) 4, 16, 5 **(2)** 3, 16, 7 **(3)** 3, 15, 5 **(4)** 2, 18, 7

59. Direction: Take the given statements as true though in reality they may not be so and decide which of the conclusions logically follow from the statements

Statements:

1. All the cucumbers are carrots.

2. Some carrots are brinjals.

3. All the brinjals are tomatos.

Conclusions:

I. Some tomatos are carrots,

II. All the carrots are tomatos

III. Some brinjals are cucumbers.

IV. All the brinjals are cucumbers.

(1) Both the conclusion II and IV follows.	**(2)**	Both the conclusion II and III follows.
(3) Both the conclusion III and IV follows.	**(4)**	Both the conclusion I and Ill follows.

60. Aman, Ayaz and Ashwinder are members of a joint family. Among them Aman is the eldest of all. Aman is six years older than Ayaz.

Ayaz is eight years elder than Ashwinder. The sum of the present ages of Aman and Ayaz is five times the age of Ashwinder four years ago.

Then the present age of Aman is:

(1) 20 years **(2)** 24 years **(3)** 28 years **(4)** 32 years

61. **Direction :** Complete the given analogy by choosing the correct group from the given alternatives

B F I D L : N R U P X : : A J E K C : ?

(1) G M F I K **(2)** I G D K F **(3)** M V Q W O **(4)** K I F M G

Direction : (Question 62)

In an extension of a city, the total population is 3000. The distribution of the population of 3000 people is as follows:

(1) Equal number of men and women are there in the age group of above 60 year.

(2) Number of male and female below 60 year are 1250 and 1150 respectively.

(3) Number of boys and girls below 18 years are 240 and 220 respectively

62. What is the difference between the female population of above 60 years and the adult female population below 60 years in the extension?

(1) 850 **(2)** 710 **(3)** 630 **(4)** 420

63. A set of three numbers is given 484, 529, 961, Choose the set which is similar to the given set from the given alternatives.

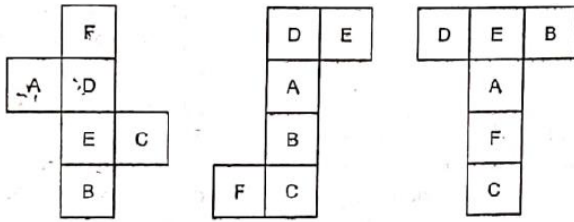**(1)** 841, 625, 196 **(2)** 729, 576, 324 **(3)** 784, 676, 289 **(4)** 441, 361, 225

64. What are the missing numbers in the third figure?
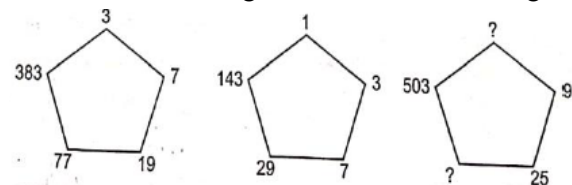
(1) 2, 53 **(2)** 4, 101 **(3)** 5, 166 **(4)** 6, 223
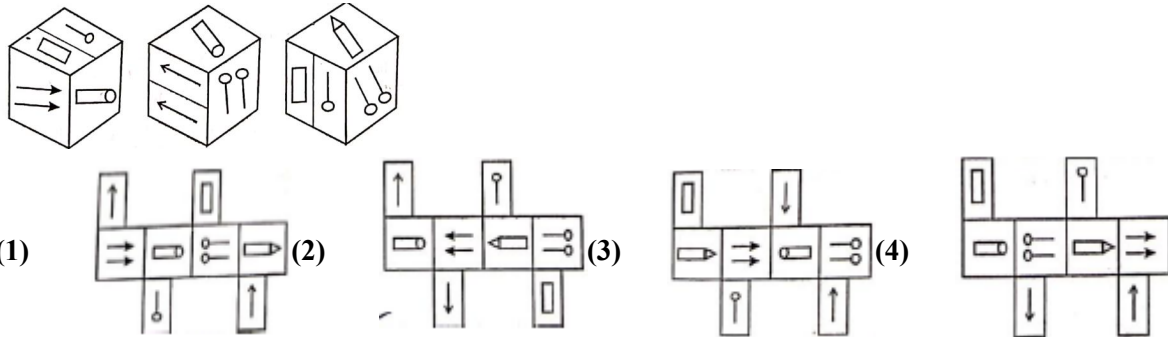
Direction : (Question 65)

The unfolded figures of the same cube are shown with three different figures. The given three figures are folded in the shape of cube.

65. In the alternatives, which one does NOT show the correct position of faces?

(1) (2) (3) (4)

66. **Direction :** The different face of a cube are shown through three folded cube shape. Identify which on the figures given in the alternatives represents the unfolded cube.


(1) (2) (3) (4)

Direction : (Question 67-68)

Read the information select carefully.

All the students in a school are divided into five house : Violet, Indigo, Green, Yellow and Red. All houses perform from Monday to Friday in a week, such that only one house performs on one day. Yellow or Red should not be either the first or last to perform. Red house should be immediately followed by Green house. Indigo house should perform immediately after Yellow house. One house will perform between Violet and Indigo house. Based on the above information select the correct option.

67. Which house is the first to perform?
   (1) Violet (2) Indigo (3) Green (4) Red

68. Which house performed on Thursday ?
   (1) Red (2) Green (3) Indigo (4) Yellow

69. What are the values of # and @ in the figure given below ?
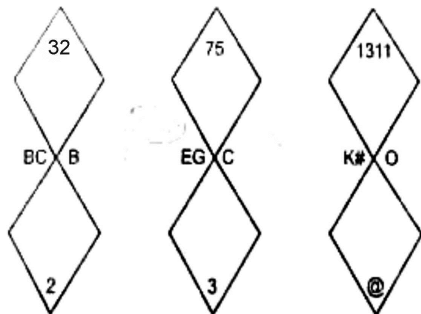
   (1) M, 15 (2) M, 60 (3) N, 30 (4) N, 50

70. Which one of the following does NOT turn out to sings (×, −, =, □), sequentially in the given alternatives?

    (1)   24 * 3* 10* 120* 2   **(2)**   12* 4 * 8* 160* 4

    (3)   10* 8* 16* 192* 3   **(4)**   16* 4* 14* 200* 4

71. **Statements :**

A # B means 'A is the daughter of B'

A $ B means 'B is the brother of A'

A = B means 'B is the sister of A'

A % B means 'A is the son of B'

A * B means 'A is the father of B'

A @ B means 'A is the mother of B'

Assuming that spouse pair is unique, which of the following indicates 'R' is the grand-daughter of M?

    (1)   M * T # 4 @ Z @ R = P   **(2)**   M * P # Y @ T @ Z = R

    (3)   M = T @ Y @ Z # Z $ R   **(4)**   M @ T # Y = Z @ R * P

72. Which of the following pair is different ?

(16, 18); (56, 63); (96, 108); (86, 99);

    (1)   16, 18   **(2)**   96, 108   **(3)**   56, 63   **(4)**   86, 99

73. If you have to make the right side ball arrangement look like left side, how many minimum number of balls you would require to move?
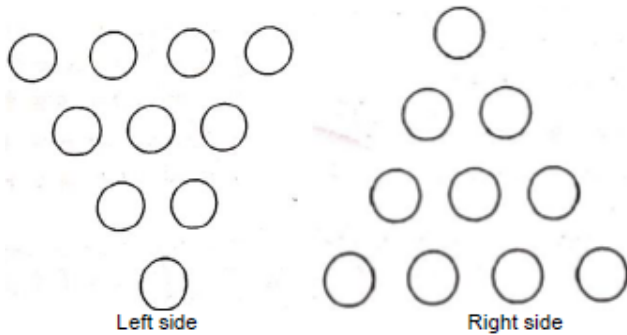
    (1)   3   **(2)**   4   **(3)**   5   **(4)**   6

74. Which figure comes in place of '?' in the figure given below?
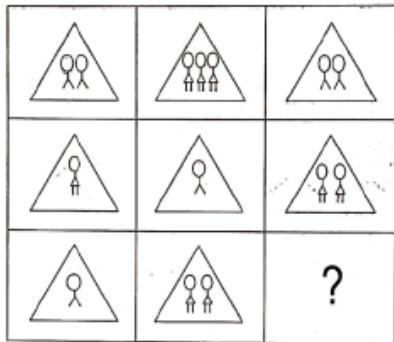
Direction : (Question 75-76)

I. △, ○, □, ⊗ and ⊟ are cousins

II. △ is twice as old as ○

III. □ is half the age of ○

IV. △ is half the age of ⊟
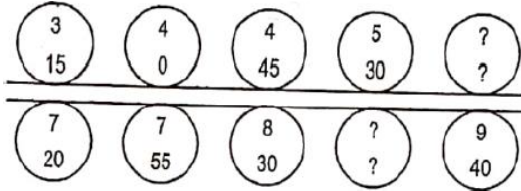
V. □ is twice the age of ⊗

75. Based on the above statements, find who is the second eldest amongst the five cousins?

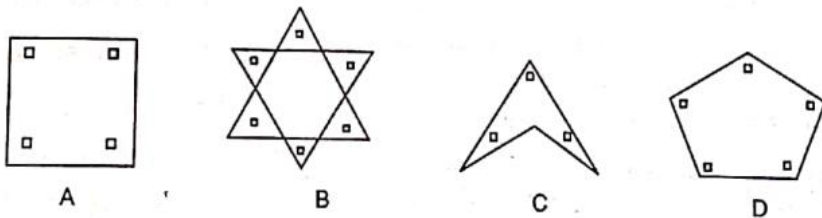(1) ⊟   (2) △   (3) ○   (4) □

76. Who all are younger to ○ ?

(1) □, ⊗   (2) ⊟, △   (3) □, ○   (4) ⊟, ⊗

77. Which number will replace the question marks if the numbers in the circles have linkages with?

(1) 5, 15; 8, 5   (2) 5, 0; 8, 20   (3) 6, 15; 9, 5   (4) 6, 20; 9, 35

78. Find out the figure that does not match with the other three figures.

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

79. What are the numbers of blocks to be crossed for covering the shortest path from 'A' to 'B'? One cannot move diagonally and on block with the number '2'

A	1	2	1		2	2	2	2
2	1	1	2		3	3	1	2
1	3	2	1		1	2	3	2
1	2	1	1		1	2	3	2
3	2	1	3	4	3	2	3	1
1	2	2	1		2	2	2	1
1	1	2	3		3	1	3	1
2	3	2	1		1	2	2	2
1	1	3	1		3	3	1	B

(1) 15   (2) 19   (3) 27   (4) 37

80. One a staircase, Yaima is further up than Aloka but is lower than Sirinvas, Ranjan is in the middle. Jeet is between Yaima and Ranjan. Aloka is between Ranjan and Danial. There in none below Barisha. Who is in the fifth position?

(1) Aloka   (2) Danial   (3) Jeet   (4) Yaima

Statement : (Question 81)

Yatin and Anandi are a married couple with two children, Krishi and Kaniki. Kaniki is married to Samson who is the son of Nui and Nirmaan. Mishi is the daughter of Samson. Aliza, who is Samson's sister is married to Hatim and has two sons, Kuku and Kiki. Nui is the grandmother of Kiki. Krishi is the maternal
aunt of Nishi.

81. What is the difference between number of females and males in the generation to which Samson belongs?
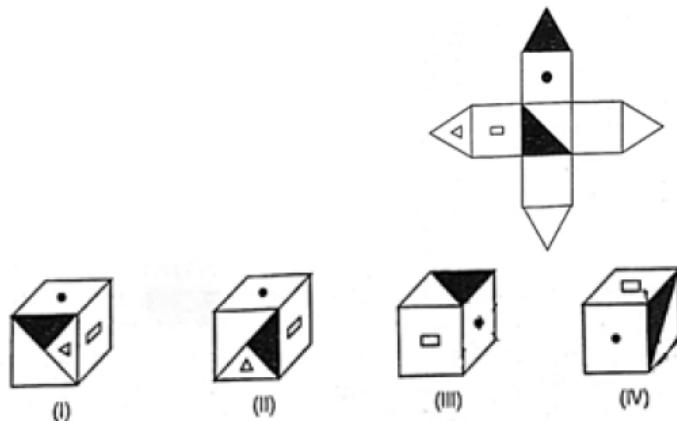
(1) 1   (2) 2   (3) 3   (4) 0

82. Which figure complete the statement?
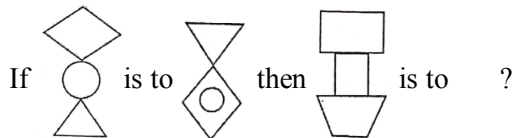
(1)   (2)   (3)   (4)

83. Identify the box that can be formed from the sheet of paper given below:

(1) Only I   (2) Only II and III   (3) Only III   (4) Only IV

Direction : (question 84-86)

Study the following information and answer the given questions

I. B and E are good at Fine Arts and Social Sciences.

II. A and B are good at Social Sciences and Chemistry.

III. A, D and C are good at Chemistry and Biology

IV. C and A are good at Chemistry and Physics

V. D and E are good at Biology and Fine Arts.

84. Who is good in Chemistry, Biology and Physics but not in Social Sciences?

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

85. Who is good in Social Sciences, Biology and Fine Arts?

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

86. Who is good in Chemistry, Fine Arts and Social Sciences?
    (1)   A   **(2)**   B   **(3)**   D   **(4)**   E

87. Observing the pattern given in the following sequence, identify the missing number in the sequence. ?
3, 18, 219, ……, 100005
    (1)   1743   **(2)**   1746   **(3)**   4096   **(4)**   4100

88. A solid cube of 4 cm side, painted on all its faces, is cut up into small cubes of 1 cm side. What is the ratio of the cubes without paint to the cubes with paint on exactly two faces?
    (1)   1 : 2   **(2)**   1 : 3   **(3)**   2 : 3   **(4)**   3 : 2

89. A man walks 20 m towards South, then after turning to his left, he walks 22 m. Then he turns 90º in an anti-clockwise direction and walks 26m. Then again he turns to the left and walks upto 30 m. How far (in metres) is man from his initial position?
    (1)   16   **(2)**   14   **(3)**   10   **(4)**   9

90. What comes in the place of the blanks ?
XXIV, XXII, XXV, XXIII, XXVI, ..…,….,XXV
    (1)   XXIV, XXVII   **(2)**   XXVII, XXVIII **(3)**   XXV, XXVI   **(4)**   XXIV, XXV

91. In which of the ways given in the options would you place the number 1-7 side by side, so that:
- The sum of the numbers 2 and 7 and all the numbers between them total 28.
- The sum of the numbers 3 and 6 and all the numbers between them total 14.
- The sum of the numbers 1 and 7 and all the numbers between them total 23.
- The sum of the numbers 2 and 4 and all the numbers between them total 10.

    (1)   2 4 3 5 6 7 1   **(2)**   1 2 3 4 5 6 7   **(3)**   2 3 1 4 6 5 7   **(4)**   3 2 1 5 6 7 4

92. Read the information and then select the correct option:
Fact 1 : Islands are surrounded by water.
Fact 2 : Mani is an island.
Fact 3 : Mani was formed by a volcano.
In the above three statements are facts, which of the following statements must also be fact ?
I. Mani is surrounded by water.
II. All islands are formed by volcanoes.
III. All volcanoes are on islands.
    (1)   I only   **(2)**   III only   **(3)**   I and III only   **(4)**   I and II only

93. The vowels of English are coded by their letter umbers appearing as two-digited and then reversed. Thereafter these numbers are represented through a Pie diagram. What will be the central angle (nearest to degree) of the sector representing 'U'?
    (1)   75   **(2)**   78   **(3)**   37   **(4)**   20

94. For finding a numeric code of 3 digits, the following information is given :
A. [6 8 2] Only one number is correct and properly placed
B. [6 1 4] one number is correct but wrongly placed
C. [2 0 6] Two numbers are correct but wrongly placed
D. [7 1 8] Nothing is correct
E. [7 8 0] One number is correct but wrongly placed. The correct code is
    (1)   [0 2 4]   **(2)**   [0 4 2]   **(3)**   [6 4 2]   **(4)**   [6 0 4]

95. What are the number of triangles that can be formed by connecting the vertices of a regular octagon with the condition that exactly one side of the triangle will be one of the sides of the octagon?

(1) 18 **(2)** 32 **(3)** 48 **(4)** 56

96. Three students Shaurya, Ruhani and Seerat are standing in a queue. There are six students between Shaurya and Ruhani and nine students between Ruhani and Seerat. If there be exactly three students ahead of Seerat and 21 students behind Shaurya, what could be the minimum number of students in the given queue?

(1) 22 **(2)** 28 **(3)** 29 **(4)** 30

97. Observe the matrix carefully:

The values of ◇, ◯, ☐ in the given matrix are respectively:

(1) 16, 12, 9 **(2)** 12, 15, 10 **(3)** 9, 11, 17 **(4)** 15, 10, 12

Direction: (Questions 98-100)

A is the incharge of setting the speakers for a debate at school. In addition to the moderator, there will be speakers in favour and against the theme. Besides, there will be a person to maintain time and a reporter to record the points. The members involved in this programme are B, C, D, E and F.

• The moderator must sit in the middle in seat number 3.
• The time-keeper cannot sit next to the reporter.
• B and F sit on either side of the moderator.
• B who is not the moderator sits between E and C.
• The moderator does not sit next to D or E.
• B, the time-keeper sits on seat number 2.

98. Who is the moderator?

(1) B **(2)** D **(3)** C **(4)** F

99. What is the seat number of E ?

(1) 1 **(2)** 2 **(3)** 3 **(4)** 4

100. Who are the speakers for the debate?

(1) E & F **(2)** B & D **(3)** C & E **(4)** F & B