SEAL

NATIONAL MEANS CUM MERIT SCHOLARSHIP SCHEME EXAMINATION, 2020-21

300377

| CENTRE CODE | | | | | |
| SEAT NO. | | | | | | | | | | | | | |

QUESTION BOOKLET

MENTAL ABILITY TEST

CLASS VIII

MEDIUM : ENGLISH

[Date : 21st March, 2021]

[Time : 10:30 A.M. to 12:00 P.M.]

Maximum Marks : 90

Time : 90 Minutes

Total Pages : 32

SEAL

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you answer the questions.

1. Answers are to be bubbled only on the separate OMR answer sheet provided to you. After examination detach the carbonless copy from original OMR & keep carbonless copy with you till the declaration of result.

2. Please write your Center Code & Seat No. very clearly (only one digit in one block) on question paper. Before writing your seat no. ascertain it with Hall ticket. Please see that no block is left blank or unfilled.

   Example :

CENTRE CODE				1	1	0	2					
SEAT NO.			M	3	3	9	2	1	1	1	0	2	1	2	3

3. Please ensure that you have received **Mental Ability Test** answer sheet.

4. Total number of questions are 90 for this paper. All questions carry one mark each.

5. All questions are compulsory.

6. For each question there are four options given in question paper. Check for the correct answer and bubble correct option from four circles given in answer sheet by Black/Blue pen. Please do not write any answers on question paper.

7. Start answering from first question one after the other till last question.

8. If you do not know the answer to any question, do not spend much time on it and pass on to the next one. Time permitting you can come back to the questions which you have left in the first instance and try them again.

9. Utilize the allotted time for solving the questions in best possible way. The rough work is to be done in the box given under each page.

10. Do not write anything except Center Code, Seat No. and rough work anywhere in this booklet.

Q. 1 to 3

Direction : In each of the following questions there is a specific relation between the first and second term. The same relationship exists between the third and the fourth term which will replace the question mark. Select the correct alternative.

1.   AYC : MOK :: DVF : ?

     (1) SIQ   (2) RJP   (3) LPJ   (4) JRH

2.   AYBZ : MOLN :: EUFV : ?
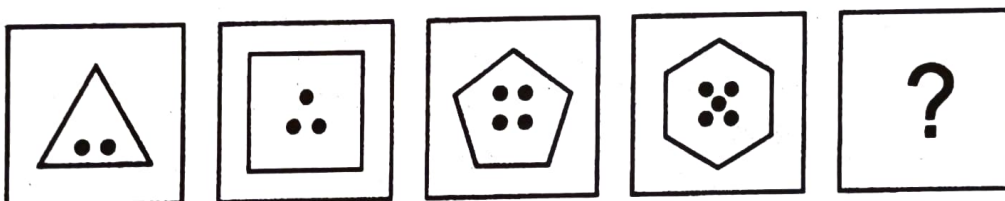
     (1) ISHR   (2) JRIQ   (3) HRIS   (4) FTGU

3.   DWVU : JQRS :: BYXW : ?

     (1) KPQR   (2) JQRS   (3) LOPQ   (4) IRSP

Q. 4 to 6

Direction : In each of the following questions the question figures change in a sequence. Find out the correct figure from the alternative figures that replaces the question mark.

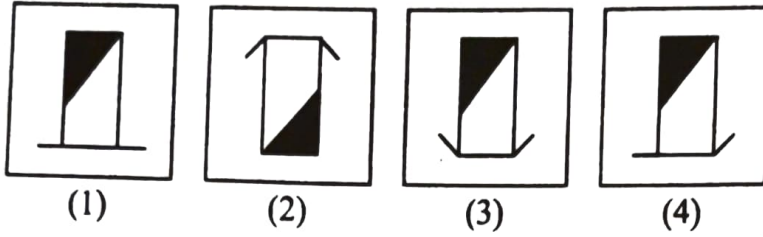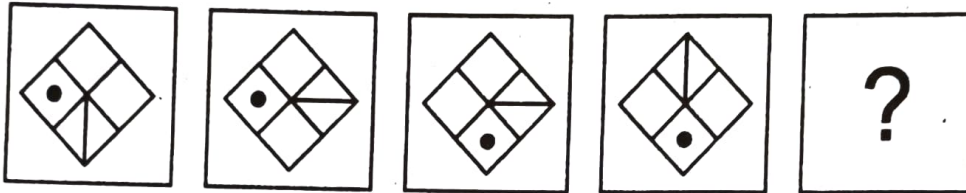4.   Question figures

Answer figures

    (1)   (2)   (3)   (4)
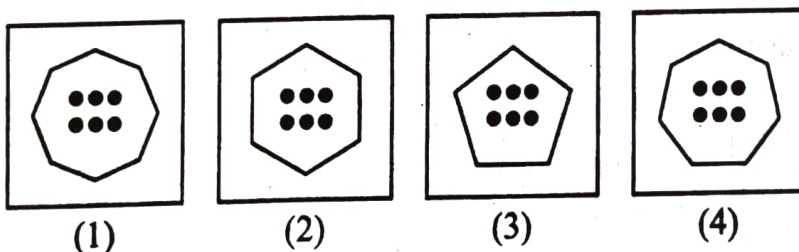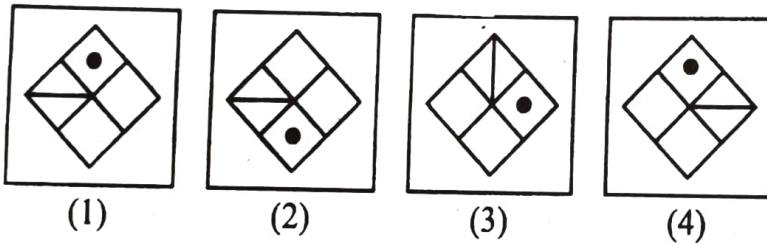
Space for Rough Work

5. Question figures

Answer figures

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

6. Question figures

Answer figures

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

Space for Rough Work

Q. 7 to 9

Direction : Find the odd term.

7.   (1)   101   (2)   416   (3)   208   (4)   327

8.   (1) $1\dfrac{11}{25}$ (2) $1\dfrac{13}{36}$ (3) $5\dfrac{3}{16}$ (4) $5\dfrac{19}{25}$

9.   (1)   425   (2)   325   (3)   225   (4)   825

Q. 10 to 12

Direction : In the following questions a specific group of terms is given. From the given alternatives, find out the correct term that matches the given group.

10.   AZCX, BYDW, GTIR, JQLO

     (1)   CXFU   (2)   DWSH   (3)   EVGT   (4)   HSOL

11.   BDH, FLX, EJT

     (1)   CIL   (2)   DHP   (3)   JTY   (4)   HPX

12.   BDG, EJP, HPY

     (1)   DHN   (2)   CFH   (3)   CFJ   (4)   DHK

Space for Rough Work

Q. 13 to 15

Direction : Ajay, Mahesh, Reena and Uma are players. Mahesh and Uma do not play kabaddi. Ajay plays all the games except football. Uma and Reena do not play kho-kho. Answer the following questions by choosing the correct alternative.

13.   Which game do all the players play?

(1)   Kabaddi   (2)   Kho-Kho

(3)   Badminton   (4)   Football

14.   Who plays Kabaddi?

(1)   Ajay, Mahesh   (2)   Ajay, Reena

(3)   Reena, Uma   (4)   Ajay, Uma

15.   Which player plays only two games?

(1)   Mahesh   (2)   Ajay

(3)   Reena   (4)   Uma

Q. 16 to 18
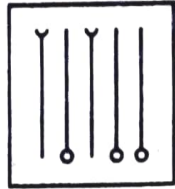
Direction : Find the odd figure.

16.
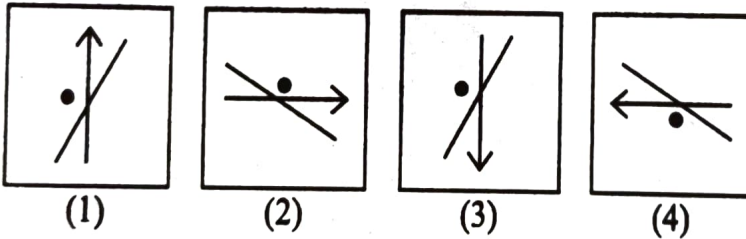
(1)   (2)   (3)   (4)

Space for Rough Work

17.
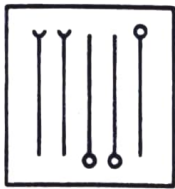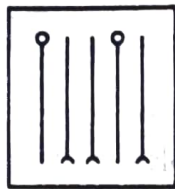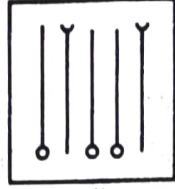
(1)	(2)	(3)	(4)

18.
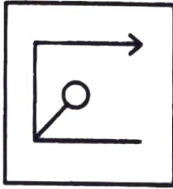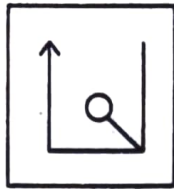
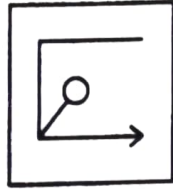|			
(1)	(2)	(3)	(4)

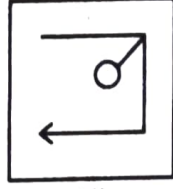**Q. 19 to 21**

Direction : Find the odd term.

19.   (1) THR   (2) YDW   (3) QKO   (4) VFT

20.   (1) JE   (2) FC   (3) NG   (4) VL

21.   (1) P – 4   (2) F – 3   (3) D – 2   (4) Y – 5

22. In a certain code language if SPOT = 210, BEAT = 84, then in the same code language PLAY = ?

   (1) 181   (2) 162   (3) 148   (4) 109
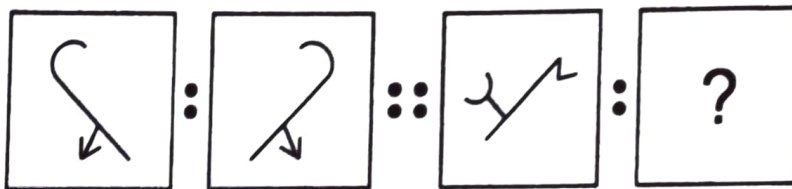
Space for Rough Work

23. In a certain code language if EAST = 9, then in the same code language NORTH = ?

    (1) 18   (2) 16   (3) 14   (4) 12

24. In a certain code language if ARMY = EUOZ, then in the same code language FUND = ?

    (1) JPXE   (2) JXPE   (3) JXEP   (4) JWQH

25. In a certain code language if ABOVE = ZYLEV, then in the same code language RIGHT = ?

   (1) IRSTJ   (2) QRSTU   (3) JSUTH   (4) IRTSG

Q. 26 to 28

Direction : In the following questions there is a specific relation between first and second figures. The same relationship exists between the third and the fourth figures which will replace the question mark. Select the correct figure from the alternatives given below each question.
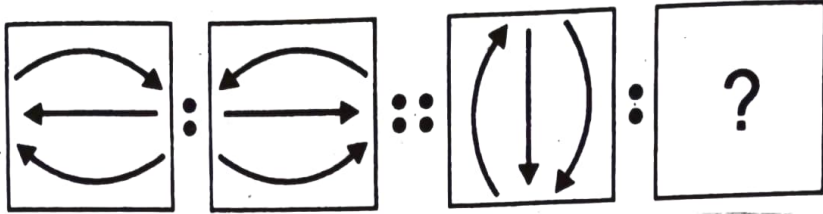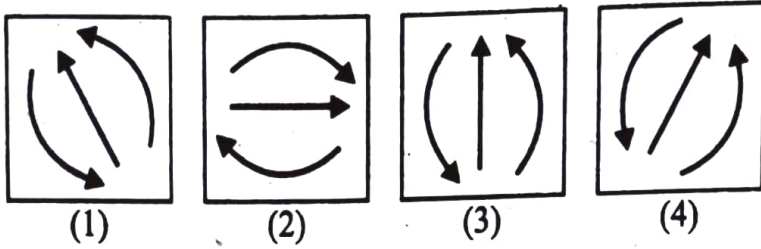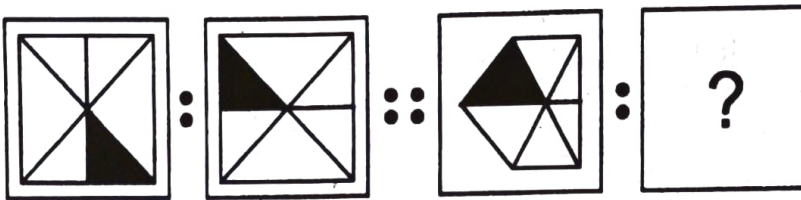
26. Question figures

Answer figures

    (1)   (2)   (3)   (4)
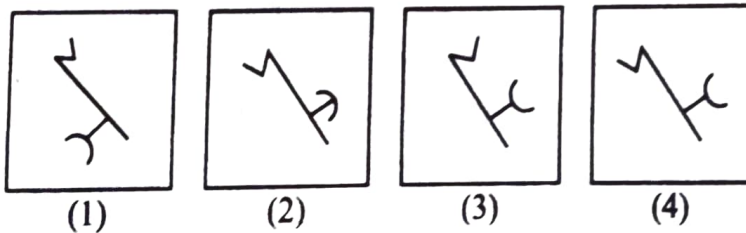
Space for Rough Work

27. Question figures

Answer figures

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

28. Question figures

Answer figures

(1)   (2)   (3)   (4)
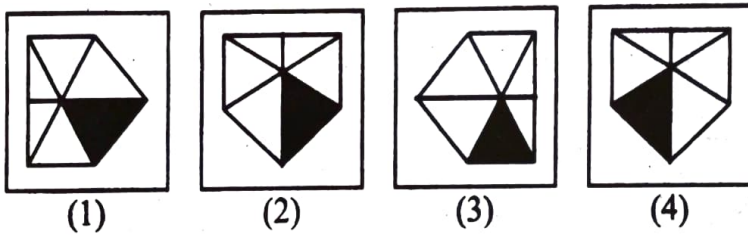
Space for Rough Work

Q. 29 to 31

Direction : A rhythmic arrangement of letters is given. The missing letter or number appears in the same order in one of the alternative answers. Find the correct alternative.

29. ba – cb – b – bab –

    (1) bcbc   (2) baac   (3) baca   (4) bacc

30. – a – b – abaa – bab – a

    (1) babba   (2) babab   (3) baabb   (4) babaa

31. 1 – 1001 – – 00 – 010 –

    (1) 01100   (2) 00110   (3) 00101   (4) 01010

Q. 32 to 34

Direction : In the following question there is a relation between column I and column II in a code language. The expressions in column II are not arranged in the same order as letters in column I. By using the code language find the correct alternative.

Column I	Column II
RULE	4568
AREA	8411
TOUR	5298
TALK	3612

Space for Rough Work

32. ULTRA = ?

    (1) 56182

    (2) 56128

    (3) 56281

    (4) 56218

33. EURO = ?

    (1) 5874

    (2) 4580

    (3) 8954

    (4) 7652

34. TALUKA = ?

    (1) 216135

    (2) 216153

    (3) 265113

    (4) 216531

Space for Rough Work

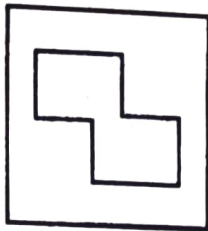35. In 1974, India celebrated which year of independence?
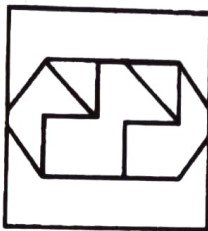
    (1) 26th

    (2) 27th

    (3) 28th

    (4) 29th

36. **Direction :** Question figure is hidden in one of the alternative figures given in 'Answer figures'. Select the correct alternative figure.
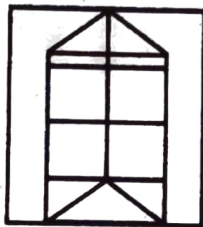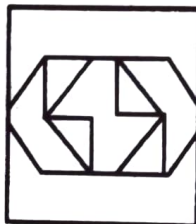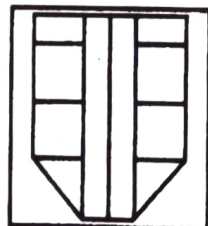
Question figure

Answer figures

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

Space for Rough Work

Q. 37 to 39

Direction : Which number will replace the question mark in the given series? Find the correct alternative.

37. 0.5, 2, 4.5, 9, 16.5, ?

    (1) 19.5   (2) 21

    (3) 24.5   (4) 28

38. 13, 17, 25, 32, 37, 47, 58, ?

    (1) 60   (2) 68

    (3) 71   (4) 85

39. 28, 33, 31, 36, ?, 39

    (1) 32   (2) 34

    (3) 38   (4) 40

Q. 40 and 41

Direction : Total number of cars and bicycles is 8. The total number of their wheels is 30. Answer the following questions.

40. Write the number of cars and bicycles in sequence.

    (1) 6, 2   (2) 7, 1

    (3) 5, 3   (4) 4, 4

41. What is the product of the number of cars and bicycles?

    (1) 7   (2) 15

    (3) 16   (4) 12

Space for Rough Work

42. If the numbers 1 to 6 are written repeatedly in the serial order, then which number will occur at 14th place?

(1) 2   (2) 3

(3) 4   (4) 5

43. Seeta is younger than Geeta by 8 days. Seeta was born on 7th March 2000. When was Geeta born?

(1) 1st March

(2) 27th February

(3) 28th February

(4) 29th February

Q. 44 to 46

Direction : A cube having each side 4 units is painted Red, Blue and Yellow in such a way that opposite sides have same colour. Then it is cut into small cubes having side 1 unit. Answer the following questions.

44. How many cubes have at least one side painted?

(1) 8   (2) 24

(3) 56   (4) 64

Space for Rough Work

45. How many cubes have same colour on two faces?

(1) 8

(2) 4

(3) 2

(4) 0

46. Find the maximum number of faces of a cube that may have been painted.

(1) 1

(2) 2

(3) 3

(4) 4

47. 25 students are standing on the border of the ground at a distance of 1 m from each other. Find the perimeter of the ground.

(1) 23

(2) 24

(3) 25

(4) 26

Q. 48 to 50

Direction : In the following questions a specific group of terms is given. From the given alternatives, find out the correct term that matches the given group.

48. 156, 182, 72, 90

(1) 241

(2) 110

(3) 220

(4) 130

49. 135, 433, 563, 489

(1) 257

(2) 327

(3) 429

(4) 793

Space for Rough Work

50. 728, 63, 215, 511

    (1) 997   (2) 80

    (3) 342   (4) 347

Q. 51 to 53

Direction : Observe the following pyramid of letters and answer the questions that follow :

```
                    i
                 h     j
              g     s     k
           f     q     r     l
        e     p     o     n     m
     d     j     k     l     m     n
   c     i     h     g     f     e     o
 b     y     z     a     b     c     d     p
a    x    w    v    u    t    s    r    q
```

51. abx, cdi, efp, ?

    (1) vau   (2) ghs

    (3) gqs   (4) hij

Space for Rough Work

52. bxywz : prdsc :: ? : nemfl

(1) defph

(2) dejpk

(3) dizhh

(4) dijhk

53. deji : nmme :: cdiy : ?

(1) oned

(2) xywz

(3) uagh

(4) onme

Q. 54 to 56
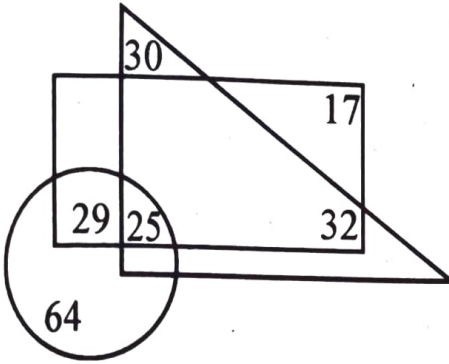
Direction : In the adjacent Venn diagram, rectangle represents the persons who are good in English. The triangle represents the persons who are good in Japanese language and the circle represents the persons who are good in Sanskrit. Choose the correct alternative to answer the questions that follow.

54. How many persons are not knowing Sanskrit and English?

(1) 30

(2) 62

(3) 87

(4) 72

Space for Rough Work

55. By how much is the number of persons knowing Sanskrit and English is less than the number of persons knowing English and Japanese?

(1) 45

(2) 20

(3) 5

(4) 3

56. How many persons are knowing only one language?

(1) 81

(2) 94

(3) 111

(4) 126

Q. 57 and 58

Direction : Observe the given figure and choose the correct alternative to answer the questions that follow.

57. Find the total number of squares in the figure.

(1) 18

(2) 30

(3) 32

(4) 60

58. Find the total number of rectangles that are not squares.

(1) 64

(2) 70

(3) 100

(4) 102
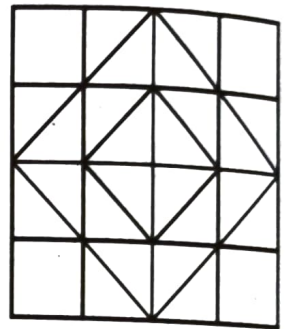
Space for Rough Work

Q. 59 and 60

Direction : Three positions of a cube are given below. Observe the figure and answer the questions by choosing correct alternative.
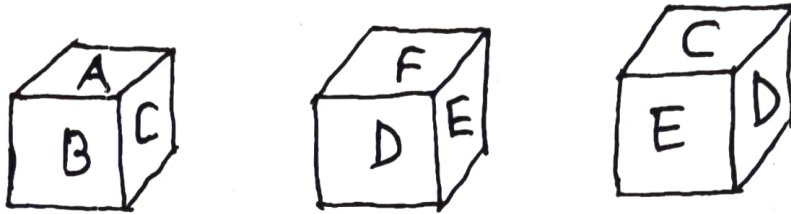
59. If letter C is at the bottom, then which letter will be at the top?

    (1) A   (2) B

    (3) E   (4) F

60. Which letter will not be adjacent to B?

    (1) A   (2) C

    (3) F   (4) E

61. In 1992, 'Gandhi Jayanti' was on Friday, then in the same year which day will occur on 28th February?

    (1) Monday

    (2) Thursday

    (3) Friday

    (4) Saturday

Space for Rough Work

Q. 62 to 64

Direction : The adjacent figure is folded to form a cube. Observe the figure and answer the questions that follow.

	F	E
		D
		A
	B	C
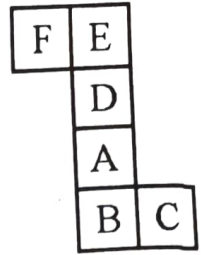
62. Which letter will occur opposite to E?

   (1) B

   (2) A

   (3) D

   (4) C

63. Which letter will not be adjacent to C?

   (1) A

   (2) F

   (3) D

   (4) E

64. Of the following cube figures find the non-relevant figure.
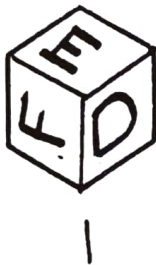
1   2   3   4

Space for Rough Work

Direction : In the following questions there is a specific relation between the first and second terms. The same relationship exists between third and fourth terms, which will replace the question mark. Select the correct alternative from the given alternatives.

65. 16 : 63 : : ? : 35

    (1) 10   (2) 11

    (3) 12   (4) 14

66. 343 : 100 : : 216 : ?

    (1) 144   (2) 122

    (3) 90   (4) 84

67. 306 : 17 : : 552 : ?

    (1) 21   (2) 22

    (3) 23   (4) 24

68. In the following question which alternative will replace the question mark?

23	19	11
17	?	35
31	29	13

    (1) 20   (2) 25

    (3) 24   (4) 27

Space for Rough Work

69. In the following question which alternative will replace the question mark?

121	52	225
256	60	196
289	?	144

(1) 84

(2) 73

(3) 62

(4) 58

70. In 2015 'Environment Day' was on 'Friday. Then in the next consecutive year, on which day 'World AIDS Day' occurred?

(1) Tuesday

(2) Wednesday

(3) Thursday

(4) Friday

Q. 71 to 73

Direction : In the following figures numbers are written with a specific rule. According to that rule which alternative will replace the question mark?

Space for Rough Work

71.
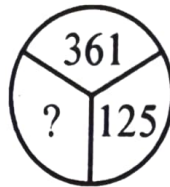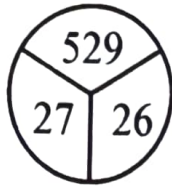
(1) 20

(2) 22

(3) 24

(4) 26

72.
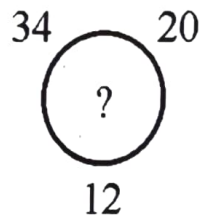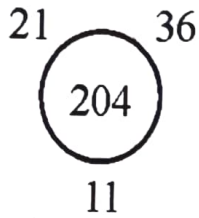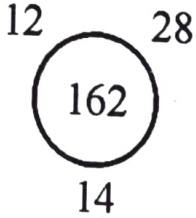
(1) 198

(2) 272

(3) 328

(4) 415

73.

(1) 46

(2) 56

(3) 65

(4) 78
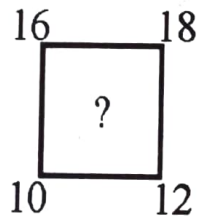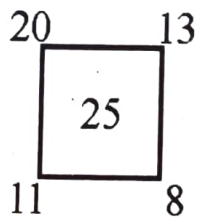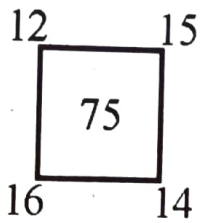
Q. 74 to 77

Direction : In a code language the word 'KRISHNA' is written in four different languages. Identify the code language given below and select the correct alternative.

KRISHNA   =   (1) MTKUJPC

                  (2) KIHARSN

                  (3) JQHRGMZ

                  (4) PIRHSMZ

74.   WATER   =   YCVGT

75.   RIVER   =   IREVI

76.   RESCUE   =   RSUECE

77.   RAJPUR   =   IZQKFI

Q. 78 to 80

Direction : Which number will replace the question mark in the given series?

78.   DGM, GKR, JOW, MSB, ?

    (1) RXF

    (2) PWF

    (3) OWG

    (4) PWG

Space for Rough Work

79. RLA, PNB, NPC, ?

    (1) JSF

    (2) HSF

    (3) LRD

    (4) MRD

80. NMS, QKP, TIM, WGJ, ?

    (1) ZEG

    (2) ZSK

    (3) AEG

    (4) ZGE

81. Bharati is facing East. How she should take turns in sequence given below so that she will face west at the end?

    (1) left, left, left, right

    (2) left, right, left, right

    (3) right, left, left, right

    (4) right, right, left, right

Space for Rough Work

Q. 82 and 83

Direction : A sheet of paper is folded on the dotted lines as per the arrows shown in the question figures. Figures are given in proper sequence. After folding the paper, it is cut at specific places as shown in the figures. Find out how will the paper look like when unfolded.
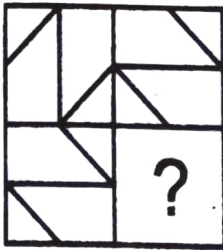
82. Question figures
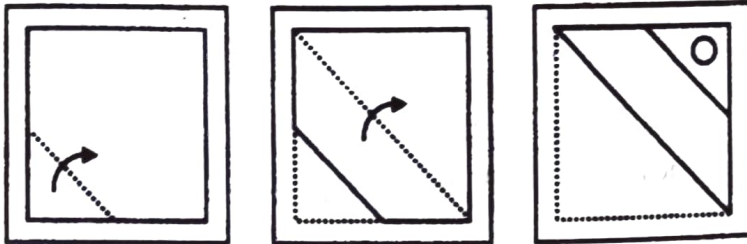
Answer figures
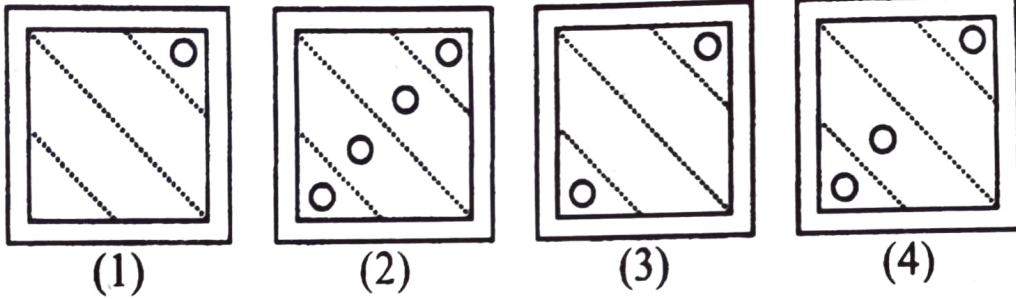
(1) (2) (3) (4)

83. Question figures
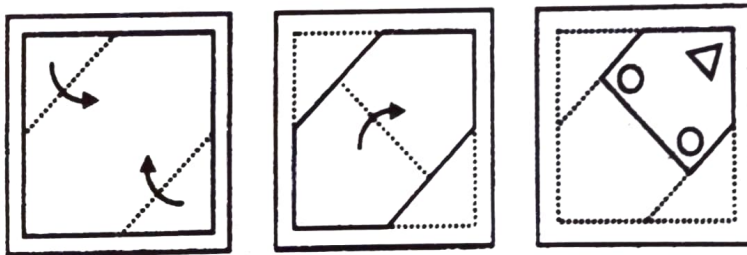
Space for Rough Work
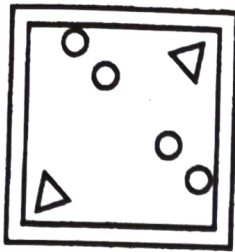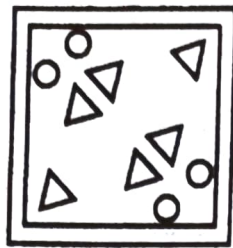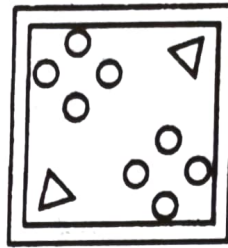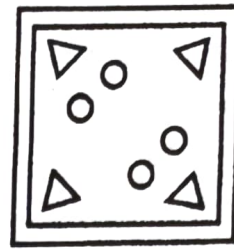
Answer figures

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

84. **Direction :** A transparent sheet with some pattern is given below as a question figure. The sheet is folded on the dotted lines from right to left. How would the pattern then look like? Select the correct alternative.

Question figure
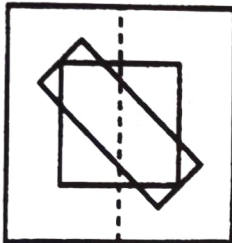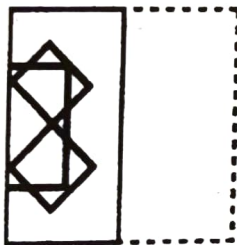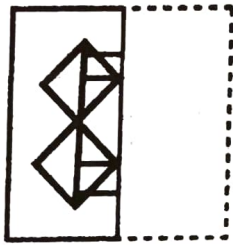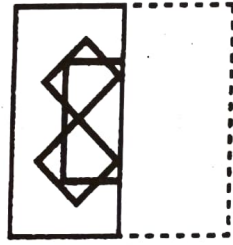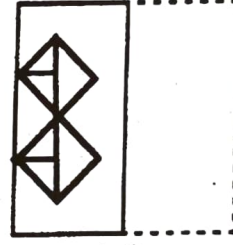
Answer figures

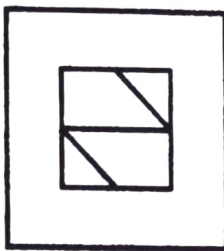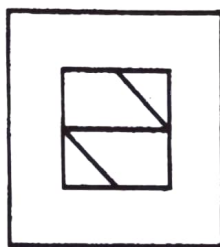(1)   (2)   (3)   (4)

Space for Rough Work

85. **Direction :** In the following question the given figure is incomplete. Select the correct alternative which can complete the figure.
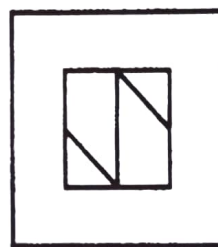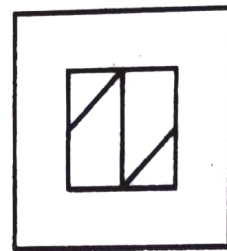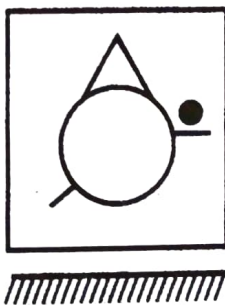
Question figure

Answer figures

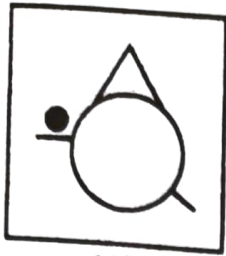(1)   (2)   (3)   (4)

Q. 86 and 87

Direction : The question figure given below is held vertically on water surface. How will the reflection of the given figure in water look like? Select the correct alternative.
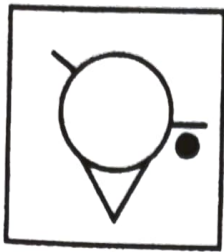
86. Question figure
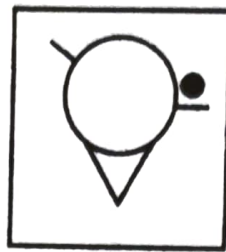

<table>
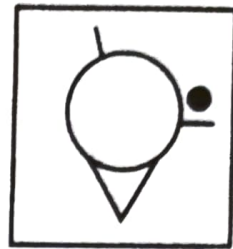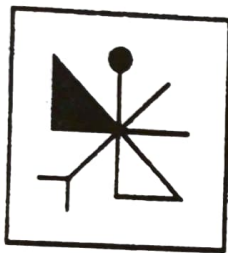<tr><td>Space for Rough Work</td></tr>
</table>

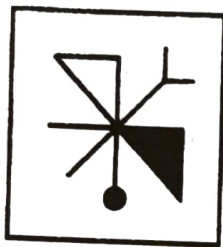Answer figures
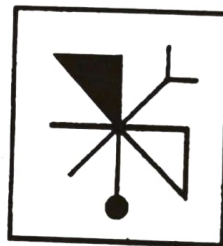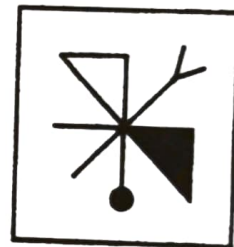

(1)   (2)   (3)   (4)

87. Question figure

Answer figures

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

Space for Rough Work

Q. 88 to 90

Direction : Observe the following pyramid of numbers and answer the questions that follow.

```
                    36
                 34    35
               33   32   31
             27  28  29  30
           26  25  24  23  22
         16  17  18  19  20  21
       15  14  13  12  11  10   9
         1   2   3   4   5   6   7   8
```

88. 1512, 1423, 1334, ?

    (1) 1231   (2) 1219

    (3) 1218   (4) 1245

89. 272528, 261725, 161417, ?

    (1) 151421   (2) 15214

    (3) 332827   (4) 251824

90. 2513171426 : 2311201022 : : 27281817 : ?

    (1) 30291920   (2) 217620

    (3) 32312324   (4) 29302220

Space for Rough Work

Space for Rough Work