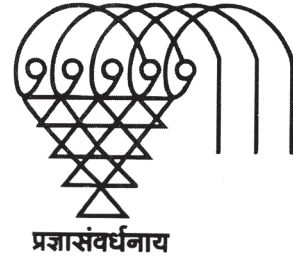


# GOA HEADMASTERS ASSOCIATION, GOA.

202 RAYU CHAMBERS,  
PANAJI, GOA 403 001.



## GOA TALENT SEARCH EXAMINATION - 2019-20

**Std. VIII**

**PAPER I - MENTAL ABILITY TEST  
Q. NOS. 1 TO 100**

**PAPER II - SCHOLASTIC APTITUDE TEST  
Q. NOS. 101 TO 200**

**TIME : 10.00 a.m. to 1.00 p.m.**

**DATE : 2<sup>nd</sup> February 2020**

**THIS PAPER CONTAINS 14 PAGES.**

- 1) One morning after sunrise, Geeta and Sita were standing alone with their backs towards each other. Geeta's shadow fell exactly towards left hand side, which direction was Sita facing?
  - (1) East
  - (2) West
  - (3) North
  - (4) South
- 2) Ram started walking towards east and walked 40 meters. He then turned towards right and walked 30m, then turned towards left and walked 20m and again turned towards left and walked 30m. How far is he from the starting point?
  - (1) 60m
  - (2) 70m
  - (3) 90m
  - (4) 120m
- 3) In a group of 20 people, 10 can read Marathi, 8 can read Konkani while 5 of them can't read both of these. How many can read both Marathi and Konkani.
  - (1) 3
  - (2) 5
  - (3) 8
  - (4) 10

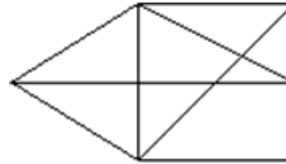
**Directions: (Questions 4 to 6): In a school following codes were used during Physical exercise, 1 means 'start walking', 2 means 'keep standing', 3 means 'start jumping' and 4 means 'sit down'.**

1 2 3 1 2 3 4 2 1 3 4 4 1 2 1 3 3 2 2 1 3 4

The students perform the above sequence without error, from the beginning to the end, then answer the following questions:

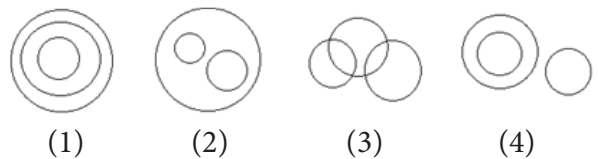
- 4) How many times the students will sit after Jumping?
  - (1) 1
  - (2) 2
  - (3) 3
  - (4) 4
- 5) How many times student will jump after walking?
  - (1) 1
  - (2) 2
  - (3) 3
  - (4) 4
- 6) How many times students will have to sit down?
  - (1) 1
  - (2) 2
  - (3) 3
  - (4) 4

- 7) How many triangles are there in the given figure?



- (1) 15
  - (2) 14
  - (3) 13
  - (4) 12
- 8) Pointing out to a lady Ranjan said "She is the daughter of the woman who is the mother of the husband of my mother." How is the lady related to Ranjan?
  - (1) granddaughter
  - (2) daughtert
  - (3) sister - in - law
  - (4) aunt
- 9) Arrange the following in meaningful order  
 I. paper II. Library III. Author IV. Publisher  
 V. Book VI. Pen
  - (1) II, IV, III, VI, I, V
  - (2) III, II, IV, I, V, VI
  - (3) III, VI, I, IV, V, II
  - (4) III, VI, I, V, IV, II
- 10) If day before yesterday was Friday, the day after Tomorrow will be
  - (1) Sunday
  - (2) Monday
  - (3) Tuesday
  - (4) Wednesday

**Directions: (Questions 11 to 14): The questions given below are based on the following venn diagram. Refer the ven diagram and select and write the correct answer.**



- (11) Artists, Men, Women
- (12) Athletics, High Jump, Cricket
- (13) Flying objects, Crow, Birds
- (14) School, Teachers, Students

**Directions: (Questions 15 to 20): In the following questions, find the missing term in the series from amongst the alternatives given under each question and mark its alternative number on the answer sheet against the corresponding question number :**


- 15) 1, 2, 2, 5, 3, 10, 4 \_\_\_\_\_  
 (1) 7 (2) 8  
 (3) 14 (4) 17
- 16) 1, 0, 3, 2, 5, 4, \_\_\_\_\_  
 (1) 6 (2) 7  
 (3) 8 (4) 9
- 17) 5, 10, 105, 100, 1005, \_\_\_\_\_  
 (1) 995 (2) 1005  
 (3) 1000 (4) 10000
- 18) 4, 20, 100, 500, \_\_\_\_\_  
 (1) 1000 (2) 2000  
 (3) 2500 (4) 3000
- 19) 100, 200, 119, 183, \_\_\_\_\_, 170  
 (1) 134 (2) 140  
 (3) 130 (4) 142
- 20) 15, 18, 23, 30, 39, \_\_\_\_\_  
 (1) 48 (2) 50  
 (3) 59 (4) 63

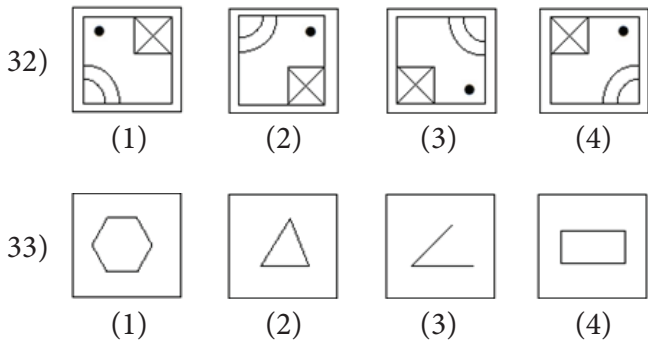
**Directions: (Questions 21 to 25): In each of the following questions. There is a series of letters/ numbers. Work out the pattern and Fill in the missing letters to complete the rhythmic series.**

- 21) a b \_ a a b \_ \_ a b c \_ \_ b c?  
 (1) b a a a a (2) c c a a a  
 (3) c b a b c (4) a b c a b
- 22) x y \_ x \_ y x \_ \_ x x \_  
 (1) x y x y x (2) x x y y x  
 (3) y x y y y (4) y x x y y
- 23) r r \_ r s \_ \_ r r r  
 (1) r s s s (2) r r s s  
 (3) r s r s (4) s r r r

- 24) \_ q \_ r p \_ q \_ p  
 (1) p r p r (2) q r p r  
 (3) p r r q (4) p r q r
- 25) 1 O \_ 1 \_ B 1 O \_ 1 O  
 (1) A 1 C D (2) A O C 1  
 (3) A 1 O 1 (4) A O C D
- 26) If PALE is coded as 2134, EARTH is coded as 41590, how is PEARL coded in that code?  
 (1) 29530 (2) 25430  
 (3) 24153 (4) 25413
- 27) If CAA is coded as 242626 and NPR coded as 131109 than how is NCR coded in that code?  
 (1) 132409 (2) 140318  
 (3) 130309 (4) 142418
- 28) In a certain code language the word NUMERICAL is written as LMUIREACN, How will the word PUBLISHED be written in that language ?  
 (1) DUBSILEHP (2) DBULISEHP  
 (3) DUBILSEHP (4) DBUSILEHP
- 29) If in a certain language HARA is written as JCTC, then JITA can be written as ?  
 (1) IHSZ (2) KJUB  
 (3) LKVC (4) MLWE
- 30) In a certain code language MEAL is written as @ @ ø ● and LEAD is written as ● @ ø #. Then how is DEAL written in that code language?  
 (1) @ @ ø ● (2) # @ ø ●  
 (3) # ● ø @ (4) @ ø @ ●

**Direction: (Questions 31 to 33): In the question given below, four figures (1), (2), (3) and (4) have been given in each question. Out of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer in the box against the number corresponding to the question.**

- 31)   
 (1) (2) (3) (4)



**Direction: (Questions 34 to 41): There is some relationship between the pairs of numbers/letter/words on the left hand side of :: The same relationship is between two such pairs on the right hand side of :: Find the missing one from amongst the given alternatives.**

- 34) Carpenter : Wood :: Cobbler : ?  
 (1) Shoe (2) Leather  
 (3) Nail (4) Thread
- 35) Lord Ram : Ayodya :: Mahatma Gandhi : ?  
 (1) Ahmedabad (2) Dwarka  
 (3) Porbandar (4) Gandhinagar
- 36) 48 : 122 :: 168 : ?  
 (1) 290 (2) 292  
 (3) 286 (4) 278
- 37) 63 : 77 :: ? : 105  
 (1) 84 (2) 91  
 (3) 99 (4) 104
- 38) CAT : DDY :: BIG : \_\_\_\_\_  
 (1) CLL (2) CLM  
 (3) CML (4) CEP
- 39) AF : KP :: FK : \_\_\_\_\_  
 (1) GL (2) OX  
 (3) TY (4) PZ
- 40) EHK : VSP :: GJM : \_\_\_\_\_  
 (1) TQN (2) ZWT  
 (3) ADG (4) PSV
- 41) EVTG : HSQJ :: CXVE : \_\_\_\_\_  
 (1) EVUF (2) FSUN  
 (3) FUSH (4) FUTG

- 42) A monkey ascends a greased pole 21 m high. In the first minute he ascends 5 m and in the next minute he descends 3 m. if he continues this process, in how many minutes will he reach the top?  
 (1) 17 minutes (2) 10.5 minutes  
 (3) 21 minutes (4) 40 minutes

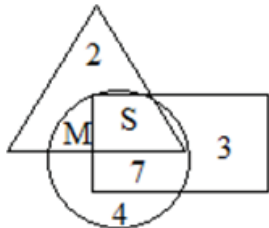
**Direction: (Questions 43 to 47): Study the following information carefully and answer the questions given below:-**

- (I) K, G, P, H, R and W are six managers in an organization of six different departments of Administration, Accounts, Printing, Personal, Computer and Publication not necessary in the same order. Each of them sits on six different floors of I, II, III, IV, V and VI and also not necessary in the same order.
- (II) P sits on IIIrd floor and is not in either personal or printing G and R are in Administration and computer respectively. H and W sits on IVth and V<sup>th</sup> floor respectively. The manager of computer department sits on 1st floor.
- 43) Who works in personal?  
 1) H (2) W  
 (3) H or W (4) Data Inadequate
- 44) On which floor does K sit?  
 (1) Ist (2) IInd  
 (3) IVth (4) Data Inadequate
- 45) Who is the manager of accounts department?  
 (1) P (2) H  
 (3) K (4) Data Inadequate
- 46) Which of the following combination of manager and department definitely correct?  
 (1) G – personal (2) W – Personal  
 (3) H - Printing (4) None of these
- 47) If H is manager in personal, which of the following combination of department and floor is correct ?  
 (1) Printing – I st  
 (2) Administration – III rd  
 (3) Printing – V th (4) Computer–II nd

48) Destroy is related to 'Create' as 'Love' is related to \_\_\_\_\_ ?

- (1) Emotion (2) Hate  
(3) Soul (4) Flow

**Direction: (Questions 49 to 51): In the following figure, the circle represents farmers, the triangle represents educated persons and the rectangle represents rural persons. Study the figure carefully and answer the following questions.**



49) Which of the following represents educated farmers?

- (1) 4 and M (2) M and 7  
(3) S and M (4) 7 and S

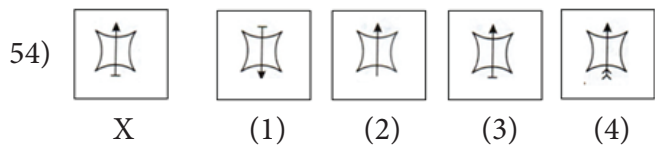
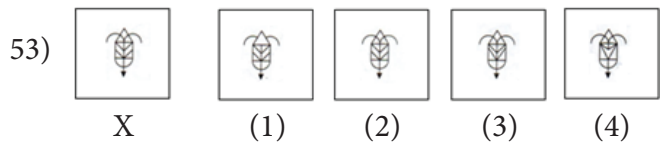
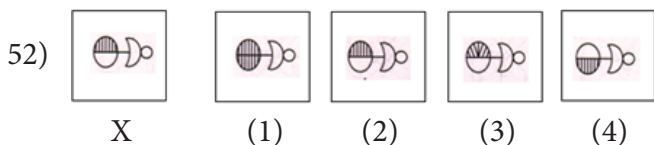
50) The region which represents farmers in rural area is denoted by \_\_\_\_

- (1) 4 (2) 7  
(3) 3 (4) S

51) If there are 27 rural persons in the group, then what is the value of S?

- (1) 10 (2) 17  
(3) 37 (4) 14

**Direction: (Questions 52 to 54): In the questions given below, a question figure is given on the left hand side marked as X and four answer figures marked (1), (2), (3), (4) are given on the right hand side. Select the answer figure which is exactly the same as the question figure and write your answer in the box against the number corresponding to the question.**



**Direction: (Questions 55 to 59): Study the following information carefully and answer the questions given below it,**

In a group of five persons A, B, C, D and E

- I. B and C are intelligent in Mathematics and Geography
- II. A and C are intelligent in Mathematics & History.
- III. D and E are intelligent in Political Science and Biology.
- IV. B and D are intelligent in political science and Geography.
- V. E is intelligent in Biology, History and Political Science

55) Who is intelligent in Political Science, Geography and Biology?

- (1) E (2) D  
(3) C (4) B

56) Who is intelligent in Mathematics, Political Science and Geography?

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

57) Who is intelligent in Mathematics and History but not in Geography?

- (1) A (2) B  
(3) C (4) E

58) Who is intelligent in Mathematics, Geography and History?

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

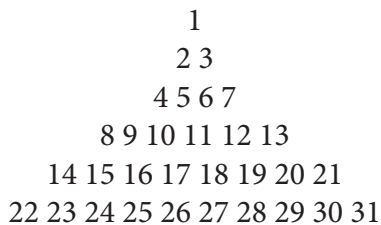
59) Who is intelligent in Political Science, History and Biology?

- (1) A (2) B  
(3) C (4) E

60) Reena is twice as old as Sunita. Three years ago, she was three times as old as Sunita. How old is Reena now?

- (1) 6 yrs (2) 7 yrs  
(3) 8 yrs (4) 12 yrs

**Direction: (Questions 61 to 63): Observe the pyramid of numbers and answer the questions given below**



61)  $16 : 19 :: 4 : \underline{\quad}$

- (1) 6 (2) 7  
(3) 8 (4) 16

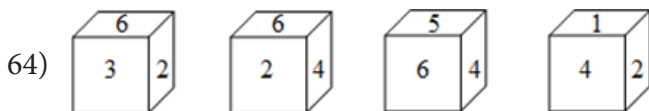
62)  $8; 16 : 10; 26 :: 13 ; 27 : \underline{\quad}$

- (1) 12 ; 28 (2) 11 ; 27  
(3) 4 ; 25 (4) 7 ; 28

63)  $8 ; 15 ; 16 : 13 ; 20 ; 19 :: 14 ; 23 ; 24 : \underline{\quad}$

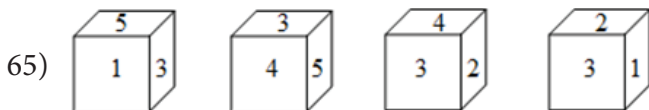
- (1) 4 ; 9 ; 10 (2) 16 ; 25 ; 26  
(3) 20 ; 29 ; 30 (4) 21 ; 30 ; 29

**Direction: (Questions 64 to 68): In each of the following questions, four positions of dice are shown. carefully observe each set of dice and find the correct alternatives in each case.**



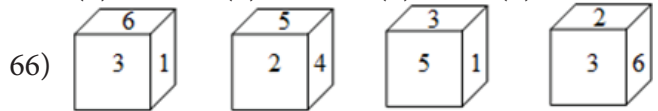
Which number is on the face opposite to 6?

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



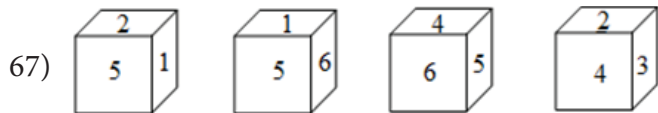
What number is opposite to 4?

- (1) 1 (2) 2 (3) 5 (4) 6



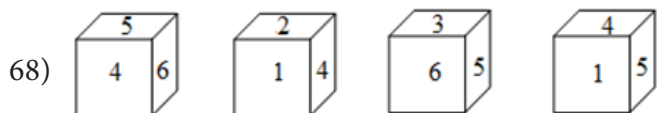
What number is opposite is to 3?

- (1) 1 (2) 2  
(3) 4 (4) 6



Which number is on the face opposite to 6?

- (1) 1 (2) 2  
(3) 3 (4) 5



What number is opposite to 3?

- (1) 1 (2) 2  
(3) 4 (4) 6

**Direction: (Questions 69 and 70): In a peculiar mathematical operations, before any operations are done, the numbers are changed as per the following rule.**

- 2, 4, 6, 8 changed to 1
- 1, 3, 5, 7, 9 changed to 0
- 0 is changed to 2

By using above direction find the answers of each of the following:

69)  $2568 + 3256 - 1306 - 5832$   
(1) 0990 (2) 2002  
(3) 1001 (4) 0101

70)  $1101 + 0101 - 011 - 1001$   
(1) 1212 (2) 2020  
(3) 1001 (4) 0101

**Direction: (Questions 71 to 74): The numbers are obtained by using one of the rules given below. Identify and write the correct rule for each of the given group of numbers.**

1. Square a number and add double of the number.
2. Cube a number and subtract one.
3. Multiply a number by five and add three.
4. Divide the number by five, add one to the quotient and square.

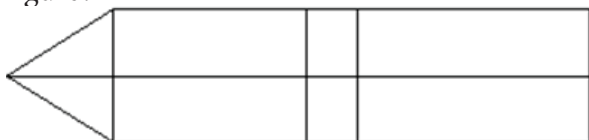
71) 15, 24, 35, 48

72) 7, 26, 63, 124

73) 36, 64, 100, 144

74) 13, 18, 23, 28, 33

75) How many rectangles are there in the given figure?

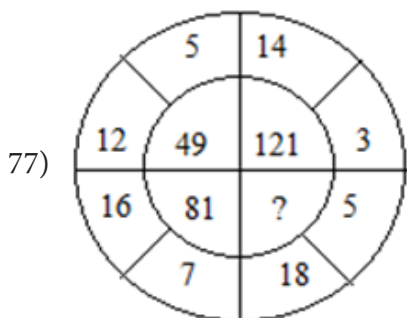


- (1) 16                      (2) 17  
(3) 18                      (4) 19

76) In a code language, 'tee see pee' means, 'drink fruit juice', 'see kee lee', means 'juice is sweet' and 'lee ree mee' means 'he is intelligent'. Which word stands for 'sweet' in that language?

- (1) see                      (2) kee  
(3) lee                      (4) pee

**Direction: (Questions 77 to 82): In each of the following figures, the numbers are arranged according to certain rule. Find the missing number in place of ? from the alternatives given.**



- (1) 144                      (2) 100  
(3) 169                      (4) 225

78)

2	17	59
31	47	5
11	?	23

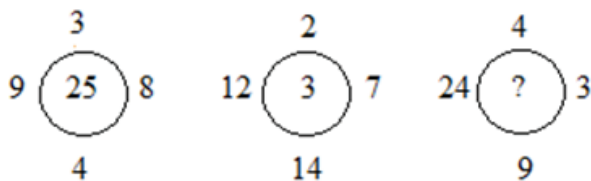
- (1) 29                      (2) 37  
(3) 43                      (4) 41

79)

24	23	28
41	39	?
15	18	9

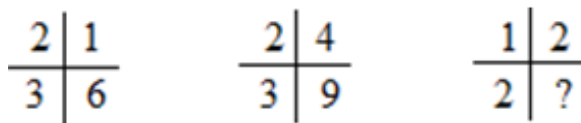
- (1) 33                      (2) 43  
(3) 37                      (4) 45

80)



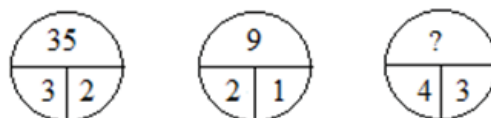
- (1) 1                      (2) 2  
(3) 5                      (4) 7

81)



- (1) 4                      (2) 6  
(3) 3                      (4) 5

82)



- (1) 51                      (2) 81  
(3) 91                      (4) 61

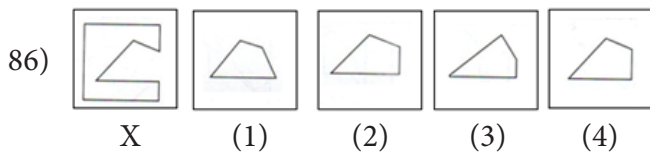
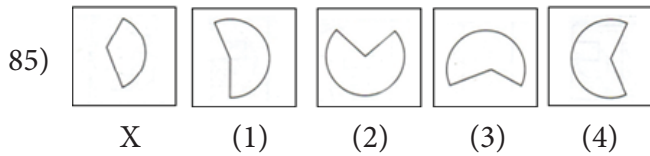


**Direction: (Questions 83 and 84):** If (+) and (-) are interchanged, ( $\times$ ) and ( $\div$ ) are interchanged (2) and (4) are interchanged then which of the following is correct.

- 83) (1)  $24 \div 6 = 4$  (2)  $86 + 24 = 108$   
 (3)  $24 \times 5 = 100$  (4)  $42 - 54 = 78$

- 84) (1)  $24 \times 6 = 4$  (2)  $24 \div 6 = 252$   
 (3)  $24 + 50 = 92$  (4)  $24 - 30 = 12$

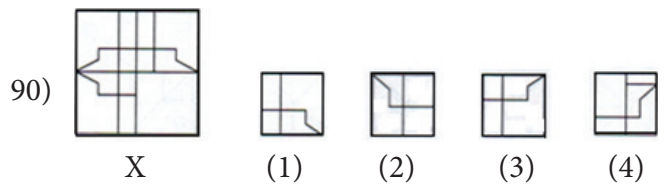
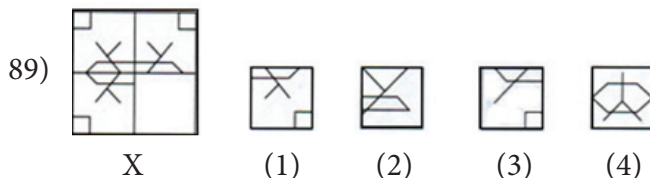
**Direction: (Questions 85 and 86):** In the questions given below, one part of a geometrical figure (triangle, circle, square) is on the left hand side marked as X and the other one is among the four answer figures (1), (2), (3), (4) on the right hand side. Find the figure on the right hand side that complete the geometrical figure and write the number given below that figure in the box against the number corresponding to the question.



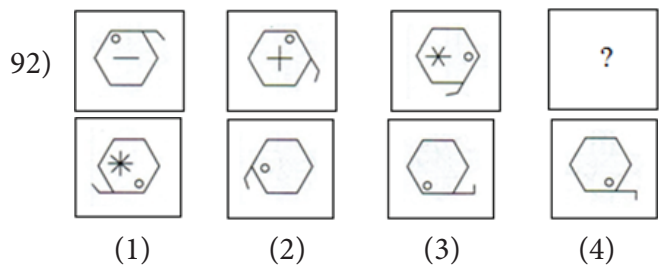
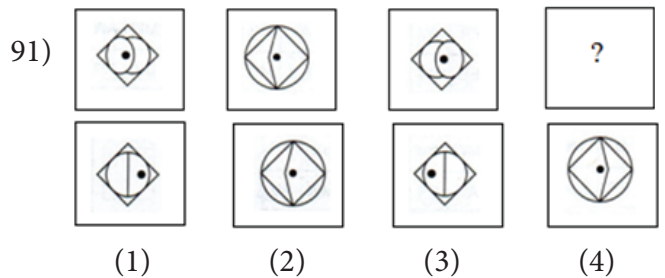
- 87) If  $25 \times 25 = 1$ ;  $5 \times 35 = 7$ ;  $1 \times 12 = 12$   
 Then what is the value of  $15 \times 15 = ?$   
 (1) 15 (2) 30  
 (3) 1 (4) None of these.

- 88) If  $35 \times 27 = 5732$ ;  $12 \times 36 = 2613$   
 then  $27 \times 89 = \underline{\hspace{2cm}}$   
 (1) 7928 (2) 2879  
 (3) 2978 (4) 2789

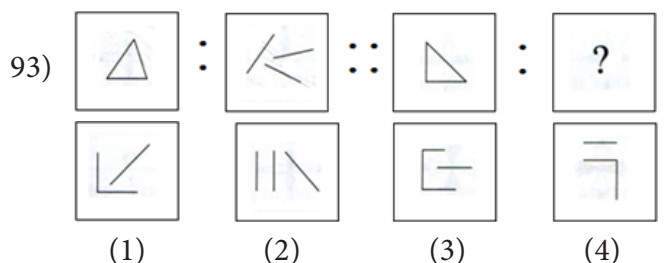
**Direction: (Questions 89 and 90):** A part of the figure marked X is missing. The missing part is given among the four alternatives. Select and write the correct answer.



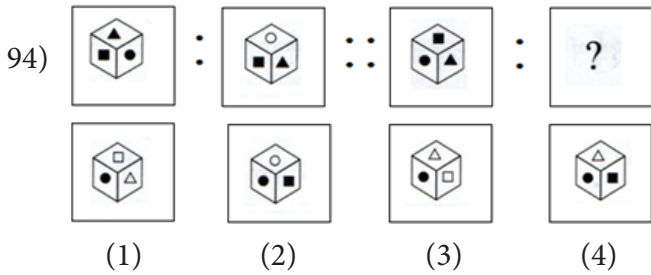
**Direction: (Questions 91 and 92):** In the question given below, there are three question figures and the space for the fourth figure is left blank. The question figures are in a series. Find out one figure from among the answer figures given below, which occupies the blank space for the fourth figure and complete the series. Indicate your answer by the number of the answer figure chosen by you in the box against the number corresponding to the question.



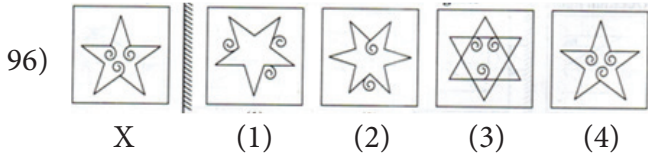
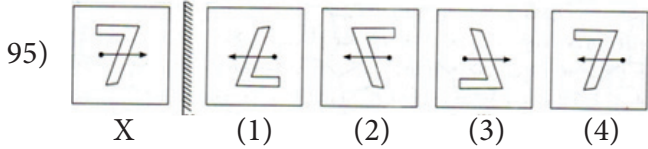
**Direction: (Questions 93 and 94):** In the question given, there are two sets of two question figures each. The second set has an interrogation (?). There exists a relationship between the first two question figures. Similar relationship should exist between the third and fourth question figures. Select one of the answer figures which replaces the mark of interrogation. Write the number of the answer figure selected by you in the box against the number corresponding to the question.



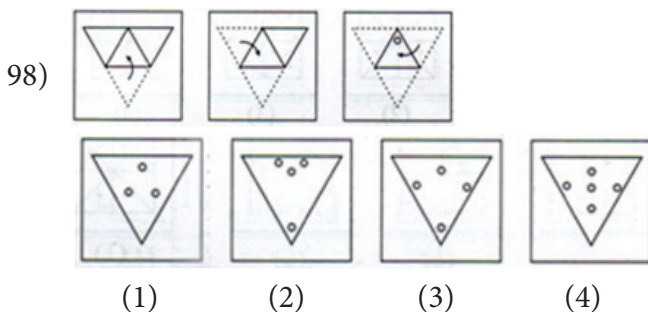
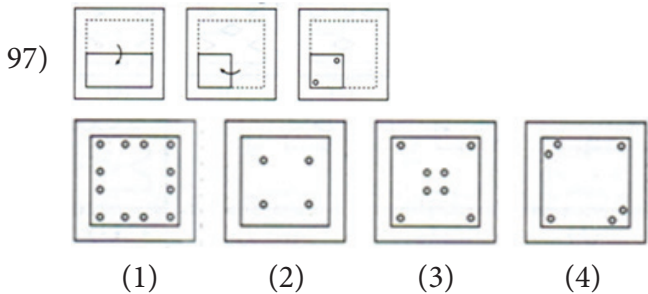




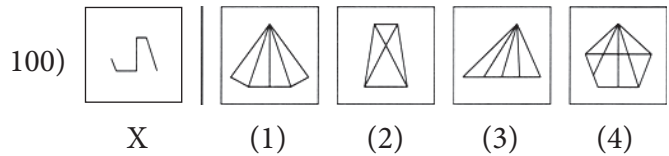
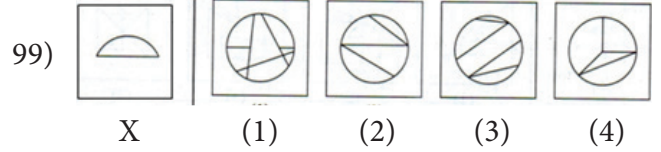
**Direction: (Questions 95 and 96):** In each question choose the correct mirror image of Fig. (x) from amongst the four alternatives given along with it :



**Direction: (Questions 97 and 98):** In the questions given below, a piece of paper is folded and punched as shown in the question figures and four answer figures are marked (1), (2), (3), (4) are given below. Select the answer figure which indicates how the paper will appear when opened (unfolded). Indicate your answer by the number of the answer figure chosen by you in the box against the number corresponding to the question.



**Direction: (Questions 99 and 100):** In the questions given below, a question figure is given marked as 'X' and four answer figures marked (1), (2), (3), (4) are given below. Select the answer figure in which the problem figure is hidden/embedded and write your answer (i.e. 1, 2, 3, 4) in the box against the number corresponding to the question.



101) The first English factory was set up on the banks of river -----.

- 1) Ganga
- 2) Narmada
- 3) Hugli
- 4) Mhadai

102) Tipu sultan was defeated in the battle of -----.

- 1) Plassey
- 2) Buxar
- 3) Panipat
- 4) Seringapatnam

103) An anti British resistance movement was taken at Kitoor by -----.

- 1) Rani Laxmibai
- 2) Rani Channamma
- 3) Rani Padmavati
- 4) Rani Durgavati

104) Shantiniketan was started by -----.

- 1) Rabindranath Tagore
- 2) Mahatma Gandhi
- 3) Lokmanya Tilak
- 4) Aurobindo Ghosh

105) Mahatma Phule wrote a book Called -----.

- 1) Stripurushtulana
- 2) Gulamgiri
- 3) Joothan
- 4) Geetarahasya

106) The Portuguese began Cultivating Indigo in -.

- 1) Jamaica
- 2) Venezuela
- 3) Brazil
- 4) America

- 107) The Mahalwari System was devised by an Englishman called -----.
- 1) Thomas Munro
  - 2) Holt Mackenzie
  - 3) Alexander Read
  - 4) Charles Cornwallis
- 108) The Pastoralist Community Van Gujjars were from -----.
- 1) Manipur
  - 2) Nagaland
  - 3) Punjab
  - 4) Kulu
- 109) The Warli Revolt in Maharashtra took place in -----.
- 1) 1910
  - 2) 1920
  - 3) 1930
  - 4) 1940
- 110) In 1801, a Subsidiary Alliance was imposed on Awadh by the British Governor General -----.
- 1) Wellesley
  - 2) Canning
  - 3) Dalhousie
  - 4) Hasting
- 111) During Shahajahan's time Delhi was an important centre of -----.
- 1) Sunni culture
  - 2) Sufi culture
  - 3) Shia Culture
  - 4) Western culture
- 112) The modern capital of India is -----.
- 1) Aurangabad
  - 2) Banaras
  - 3) Calcutta
  - 4) Delhi
- 113) Saptakoteswar was the famous deity of the --.
- 1) Mauryas
  - 2) Guptas
  - 3) Kadambas
  - 4) Shilaharas
- 114) A Journal called Asiatick Researches was started by -----.
- 1) Nathaniel Halhed
  - 2) William Jones
  - 3) Thomas colebrooke
  - 4) James Mill
- 115) Swami Dayanand Saraswati formed the association called -----.
- 1) Arya Samaj
  - 2) Brahmo Samaj
  - 3) Prarthana Samaj
  - 4) Parmahansa Mandali
- 116) The Indian constitution was adopted on -----.
- 1) 15th August 1947
  - 2) 26th January 1949
  - 3) 26th January 1950
  - 4) 19th December 1961
- 117) The act that curbed the Fundamental Rights of the people in 1919 was -----.
- 1) The Government of India Act
  - 2) Rowlatt Act
  - 3) Morley Minto reforms Act
  - 4) Arms Act
- 118) In 1956 the plan that focused on the development of heavy industries was the ---.
- 1) First five year plan
  - 2) Second five year plan
  - 3) Third five year plan
  - 4) Fourth five year plan
- 119) The person who has scholarly knowledge of the language and culture of Asia is called an -----.
- 1) Linguist
  - 2) Jurist
  - 3) Orientalist
  - 4) Archaeologist
- 120) Pandita Ramabai was a great scholar of -----.
- 1) Hindi
  - 2) Marathi
  - 3) Sanskrit
  - 4) Tamil
- 121) The smaller group of people who are responsible for implementing laws and running the government is called -----.
- 1) Legislature
  - 2) Judiciary
  - 3) Executive
  - 4) Constitution
- 122) The Indian state recognizes wearing a pugri (turban) by the -----.
- 1) Hindus
  - 2) Muslims
  - 3) Sikhs
  - 4) Parsis
- 123) Twelve members are nominated to the Rajya Sabha by the -----.
- 1) President
  - 2) Governor
  - 3) Mayor
  - 4) Judge

- 124) The Supreme Court is presided over by the ---.
- 1) Chief Justice of India
  - 2) Defence Lawyer
  - 3) Public Prosecutor
  - 4) District Judge
- 125) The number of National Parks we have in India is -----.
- 1) 51            2) 52            3) 53            4) 54
- 126) The example of Non renewable resource is ---.
- 1) water   2) soil   3) forest   4) coal
- 127) The bird called as a scavenger is -----
- 1) Kingfisher            2) Kite
  - 3) Vulture                4) Peacock
- 128) The planet which is called a water planet is ---.
- 1) Mercury                2) Venus
  - 3) Earth                    4) Mars
- 129) The world's largest producer of Bauxite is ----.
- 1) Asia                      2) Australia
  - 3) Antarctica              4) Africa
- 130) The mineral found in Goa is -----.
- 1) Gold                      2) Copper
  - 3) Iron                        4) Limestone
- 131) Which one of the following is called Black Gold-----.
- 1) Petroleum              2) Coal
  - 3) Silver                     4) Iron
- 132) Biogas is a mixture of Methane and -----.
- 1) Oxygen                  2) Nitrogen
  - 3) Carbon dioxide        4) Hydrogen
- 133) An example of fibre crop is -----.
- 1) Jute                        2) Rice
  - 3) Tea                         4) Bamboo
- 134) Breeding of fish is called -----.
- 1) Sericulture              2) Pisciculture
  - 3) Viticulture                4) Horticulture
- 135) Silicon valley is located in -----.
- 1) Ahmedabad              2) Bombay
  - 3) California                4) Delhi
- 136) TISCO was started in 1970 at-----.
- 1) Sakchi                    2) Ranchi
  - 3) Sanchi                    4) Kanchi
- 137) The first country to develop hydroelectricity was -----.
- 1) Japan                      2) Kenya
  - 3) Myanmar                 4) Norway
- 138) Electricity produced from coal is called -----.
- 1) Hydel power
  - 2) Nuclear power
  - 3) Thermal power
  - 4) Geothermal power
- 139) Which one of the following crop is a millet?
- 1) Ragi
  - 2) Jute
  - 3) Rubber
  - 4) Sugarcane
- 140) Which one of the following activities is an example of a tertiary activity?
- 1) Fishing                    2) Baking
  - 3) Banking                  4) Agriculture
- 141) How many pair(s) of sex chromosomes is present in humans?
- a) One                        b) Two
  - c) Three                      d) Four
- 142) Which of the following is not a non-contact force?
- a) Electrostatic force
  - b) Magnetic force
  - c) Gravitational force
  - d) Muscular force
- 143) Which of the following is closest to the Earth?
- a) The Pole Star
  - b) Proxima Centauri
  - c) Sirius
  - d) Nebula
- 144) If the angle of incidence is  $45^\circ$  what will the angle of reflection?
- a)  $35^\circ$                       b)  $45^\circ$
  - c)  $55^\circ$                       d)  $90^\circ$

- 145) Which of the following statements is incorrect?  
 a) Friction is caused by irregularities on the two surfaces in contact with each other.  
 b) Friction produces heat.  
 c) Friction can stop a moving object.  
 d) Friction accelerates a moving object.
- 146) Which instrument is used to measure seismic waves?  
 a) Seismograph      b) Seismometer  
 c) Seismogram      d) Richter scale
- 147) Which of the following statements is incorrect?  
 a) Real image can be obtained on a screen  
 b) Real image is always inverted.  
 c) Real image is of the same size of the object  
 d) None of these
- 148) Which of the following is called the morning star?  
 a) The Pole star      b) Jupiter  
 c) Sirius      d) Venus
- 149) Which of the following is not a greenhouse gas?  
 a) Oxygen gas      b) Methane gas  
 c) Nitrous oxide      d) Carbon dioxide
- 150) Which of the following is not an endocrine gland?  
 a) Adrenal      b) Salivary  
 c) Pituitary      d) Thyroid
- 151) The element present in the exhaust of automobiles is \_\_\_\_\_.  
 a) Lead      b) Calcium  
 c) Chromium      d) Magnesium
- 152) The female hormone produced in girls during puberty is \_\_\_\_\_.  
 a) Estrogen      b) Testosterone  
 c) Thyroid      d) Insulin
- 153) Whose voice is likely to have higher amplitude?  
 a) Baby girl      b) Baby boy  
 c) Adult man      d) Adult woman
- 154) Which of the following statements is correct?  
 a) Cones are sensitive to dim light.  
 b) Cones are sensitive to bright light.  
 c) Rods are sensitive to bright light.  
 d) Rods can sense colors.
- 155) Which of the following units is used to express distance between celestial bodies?  
 a) Metres      b) Kilometers  
 c) Picometres      d) Light Years
- 156) Which of the following combination of chromosomes leads to birth of girl?  
 a) XXY      b) XY  
 c) XX      d) XYY
- 157) What is the source of electric current in artificial satellites?  
 a) Dry cells      b) Storage batteries  
 c) Solar cells      d) Electromagnet
- 158) Which element is essential for the formation of thyroxin hormone?  
 a) Sodium      b) Iodine  
 c) Bromine      d) Iron
- 159) What type of image is formed by a plane mirror?  
 a) Virtual image behind the mirror and enlarged.  
 b) Virtual image behind the mirror and of the same size as the object.  
 c) Real image in front of the mirror and enlarged.  
 d) Real image behind the mirror and of the same size as the object.
- 160) Which of the following planets is called a red planet?  
 a) Mars      b) Earth  
 c) Venus      d) Jupiter
- 161) What is melamine?  
 a) Thermosetting polymer  
 b) Thermoplastic polymer  
 c) Synthetic fibre  
 d) Elastometera

- 162) Which of the following non- metals is used as a food preservative?  
 a) Sulphur                      b) Phosphorous  
 c) Bromine                      d) Nitrogen
- 163) Which part of the human eye controls the size of the pupil?  
 a) Cornea                      b) Retina  
 c) Lens                      d) Iris
- 164) Which of the following non - metals exists in liquid state?  
 a) Oxygen                      b) Bromine  
 c) Sulphur                      d) Chlorine
- 165) Which of the following petroleum product is used for road surfacing?  
 a) Coke                      b) Petroleum  
 c) Paraffin wax    d) Bitumen
- 166) Which of the following are examples of the endemic flora of Pachmarhi Biosphere Reserve?  
 a) Sal and wild mango  
 b) Banana and wheat  
 c) Rose and maize  
 d) Neem and grass
- 167) Which of the following cell organelle traps solar energy from the atmosphere?  
 a) Chloroplasts              b) Mitochondria  
 c) Ribosome                      d) Lysosomes
- 168) What is the shape of red blood cells?  
 a) Spindle                      b) Branched  
 c) Spherical                      d) Amoeboid
- 169) Which of the following is not an oviparous animal?  
 a) Cow                      b) Crow  
 c) Hen                      d) Crocodile
- 170) Which of the following pair of microorganisms live together as lichens?  
 a) Fungus and protozoa  
 b) Bacteria and protozoa  
 c) Alga and bacteria  
 d) Alga and fungus
- 171) Metals can be hammered into thin sheets. What is this property of metals called?  
 a) Ductility                      b) Malleability  
 c) Sonority                      d) Conductivity
- 172) Which of the following synthetic fibre resembles silk in appearance?  
 a) Polyester                      b) Nylon  
 c) Rayon                      d) Terylene
- 173) Which of the following non - metals is lustrous in nature?  
 a) Graphite                      b) Iodine  
 c) Sulphur                      d) Both b and c
- 174) Which animal was first to be cloned?  
 a) Monkey                      b) Horse  
 c) Man                      d) Sheep
- 175) What is the rearing of silkworms for producing silk called?  
 a) Pisciculture                      b) Sericulture  
 c) Apiculture                      d) None of these
- 176) What is the name of the process in which seeds or grains are separated from the plant husk by beating it on a hard floor?  
 a) Winnowing                      b) Broadcasting  
 c) Threshing                      d) Weeding
- 177) Which of the following crops would help in fixing atmospheric nitrogen?  
 a) Wheat                      b) Cotton  
 c) Moong                      d) Mustard
- 178) The following is an example of weedicides  
 a) NPK                      b) Dalapon  
 c) Urea                      d) 2,4-D
- 179) The microorganism that cause malaria is  
 a) Virus                      b) Protozoa  
 c) Bacteria                      d) Fungi
- 180) Papad are preserved by which of the following methods?  
 a) Chemical preservation  
 b) Salting  
 c) Refrigeration  
 d) Dehydration



181) The ascending order of the given rational number is .....

$$\frac{8}{40}, \quad \frac{17}{40}, \quad \frac{11}{40}, \quad \frac{14}{40}$$

1)  $\frac{8}{40} > \frac{17}{40} > \frac{11}{40} > \frac{14}{40}$

2)  $\frac{8}{40} < \frac{11}{40} < \frac{14}{40} < \frac{17}{40}$

3)  $\frac{17}{40} > \frac{11}{40} > \frac{8}{40} > \frac{14}{40}$

4)  $\frac{8}{40} < \frac{17}{40} < \frac{14}{40} < \frac{11}{40}$

182) The additive inverse amongst the following of the rational number between 3 and 4 is .....

1)  $\frac{-7}{2}$

2)  $\frac{2}{7}$

3)  $\frac{-2}{7}$

4)  $\frac{7}{2}$

183) If  $\frac{2}{4}x + \frac{1}{3}x = -8$ , then the value of x is .....

1) -45

2)  $\frac{46}{5}$

3)  $\frac{47}{5}$

4)  $\frac{-48}{5}$

184) Two numbers are in the ratio 10:16. If the sum of the numbers is 572 then the numbers are\_\_

1) 220, 352

2) 242, 352

3) 220, 342

4) 230, 340

185) A number ending in ....., ....., ....., ..... or ..... is never a perfect square.

1) 2, 3, 4, 8

3) 2, 3, 7, 8

2) 2, 3, 4, 5

4) 2, 4, 6, 8

186) Samruddhi purchased a Sweater and saved Rs. 20 when a discount voucher of 25% was provided. The price of Sweater before discount was Rs. ....

1) 70

2) 80

3) 90

4) 100

187) The number of un electrified villages in India decreased from 18,000 to 12,000 over last 6 years. What is the percentage of decrease?

1) 30%

2) 50%

3)  $33\frac{1}{3}\%$

4) None of these

188) There are 25 computers. 16 of them are out of order, therefore the percentage of computers in order is .....

1) 64%

2) 56%

3) 46%

4) 36%

189) The number divisible by 9 out of the following is .....

1) 2345

2) 3456

3) 4567

4) 5678

190) The digits A, B and C in the following are .....

$$\begin{array}{r} AB \\ \times 3 \\ \hline CAB \end{array}$$

$$\times 3$$

$$\hline CAB$$

1) A = 5, B = 1 & C = 0

2) A = 1, B = 0 & C = 0

3) A = 5, B = 0 & C = 1

4) A = 1, B = 1 & C = 5

191) A two digit number exceeds the sum of the digits of the number by 18. If the digit at the unit's place is double the digit in the ten's place, then the number is .....

1) 20

2) 22

3) 24

4) 26

192) If  $x(y-z) = \frac{(4y^2-4z^2)}{(y+z)}$ , then x = .....

1) 3

2) 4

3) 5

4) 6

193) If x and y two quantities x and y are in direct proportions with each other, then .....

1)  $\frac{x}{y}$  remain constant

2)  $x \times y$  remains constant

3)  $x - y$  remains constant

4) None of these



194) If x and y are in inverse proportion, then the value of A, B and C in the table is .....

X	25	15	B	10
Y	3	A	4	C

- 1) 5, 17.75, 7.5                      3) 5, 18.75, 7.5  
2) 5, 18.75, 6.5                      4) 6, 18.75, 7.5

195) If from the sum of  $3a - b + 9$  and  $-b - 9$ ,  $3a - b - 9$  is subtracted, then the solution is .....

- 1)  $-b + 9$                               3)  $b + 9$   
2)  $b - 9$                                 4)  $-b - 9$

196) Abhishekh is 6 years older than Jagadish. Six years ago, Abhishekh was twice as old as Jagadish. Their present age is .....

- 1) Jagadish is 12 years & Abhishekh is 14 years  
2) Jagadish is 14 years & Abhishekh is 12 years  
3) Jagadish is 12 years & Abhishekh is 18 years  
4) Jagadish is 18 years & Abhishekh is 12 years

197) The product of the multiplicative inverse of  $\frac{-12}{7}$  and  $-12$  is .....

- 1)  $\frac{7}{144}$                                       3)  $\frac{-7}{144}$   
2)  $\frac{7}{14}$                                         4)  $\frac{17}{144}$

198) Adjacent sides of rectangle are in the ratio 5:12, if the perimeter of the rectangle is 34, then the length of the diagonal is .....

- 1) 11                                        2) 12  
3) 13                                        4) 14

199) A tetrahedron having 4 vertices and 6 edges will have .....

- 1) 4    2) 5  
3) 6    4) 7

200) The parallel sides of a trapezium measure 12 cm and 20 cm. Its area if the distance between the parallel lines is 15 cm is .....

- 1)  $239 \text{ cm}^2$                               3)  $240 \text{ cm}^2$   
2)  $241 \text{ cm}^2$                               4)  $242 \text{ cm}^2$

