



**Do not open this Test Booklet until you are asked to do so.**

**Read carefully the Instructions given in this Test Booklet.**

Name of the Candidate (in Capitals) : \_\_\_\_\_

Roll Number : in figures \_\_\_\_\_

: in words \_\_\_\_\_

Centre of Examination (in Capitals) : \_\_\_\_\_

Candidate's Signature : \_\_\_\_\_ Invigilator's Signature : \_\_\_\_\_

Fascimile Signature Stamp of  
Centre Superintendent : \_\_\_\_\_

### INSTRUCTIONS

1. This question paper booklet contains **FIVE** sections. **Section "A"** Mathematics contains **50** questions of **4** marks each. **Section "B"** English, **Section "C"** General Science, **Section "D"** Social Studies and **Section "E"** Intelligence contain **25** questions each, of **2** marks per question. In all, the paper consists of **150** questions for a total of **400** marks. Answer all questions.
2. Duration of the test is 3 hours. (180 minutes)
3. The question paper booklet is in English only, for all the candidates.
4. The question paper booklet is of **32** pages. Please check and ensure that the question paper booklet is complete and contains all the pages.
5. Answer all questions in the OMR answer sheet only.
6. The OMR Answer Sheet is inside this Question Paper Booklet. When you are directed to open the Question Paper Booklet, take out the OMR Answer Sheet and fill in the particulars carefully with Blue/Black ball point pen only.
7. Darken only one circle as your correct answer for each question. If you darken more than one circle for the same question, your answer will be treated as wrong.
8. There is no negative marking for a wrong answer.
9. Do not make unnecessary marks on the OMR answer sheet or fold or attempt to deface it. If you do so, your answer sheet will not be evaluated.
10. Use Blue/Black ball point pen only for writing particulars on this page and for writing answers. Do not use pencil.
11. Rough work is to be done on the space provided for this purpose in the Question Paper Booklet only and not on the OMR sheet.
12. On completion of the test, hand over the OMR Answer Sheet to the Invigilator before leaving the Room/Hall.
13. You are allowed to take away this Question Paper Booklet with you.
14. The CODE for this Booklet is **J**. Make sure that the CODE printed on the OMR Answer Sheet is the same as that on this Question Paper Booklet. In case of discrepancy, report the matter immediately to the Invigilator for replacement of both the Question Paper Booklet and the Answer Sheet.
15. Do not write your Roll No. anywhere else except in the specified space in the Question Paper Booklet / OMR Answer Sheet.
16. Do not use white fluid for carrying out any correction on the OMR Answer Sheet.

## SECTION - 'A' : MATHEMATICS

**001** If  $a = 5 + 2\sqrt{6}$  and  $b = \frac{1}{a}$ , then what will be the value of  $a^2 + b^2$  ?

- (1) 100                      (2) 96                      (3) 102                      (4) 98

**002** Gauransh has 290 cards. Tanya has 150 cards. How many cards must Gauransh give to Tanya so that Tanya may have 3 times as many cards as Gauransh ?

- (1) 180                      (2) 40                      (3) 140                      (4) 80

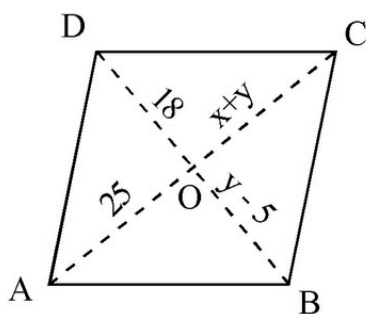
**003** A's present age is twice that of B. If B's age 5 years ago was  $b$ , then what is A's present age ?

- (1)  $2b + 5$                       (2)  $2b - 5$                       (3)  $2b - 10$                       (4)  $2b + 10$

**004** If  $ABCD$  is a parallelogram, then find the value of  $x$  and  $y$ ,

where  $OC = x + y$ ,  $OD = 18$

$$OB = y - 5 \text{ and } OA = 25$$



- (1)  $x = 13, y = 12$     (2)  $x = 2, y = 23$     (3)  $x = 23, y = 2$     (4)  $x = 12, y = 13$

**005** Statement A : Every parallelogram is a trapezium and every rhombus is a kite.

Statement B : Every rectangle is a square but every square is not a rectangle.

- (1) Both A and B are true  
 (2) A is true and B is false  
 (3) A is false and B is true  
 (4) Both A and B are false

[Solve]

**006** The denominator of a rational number is greater than its numerator by 2. If the denominator is increased by 5 and the numerator is decreased by 2, the number obtained is  $\frac{1}{10}$ . The rational number is :

- (1)  $\frac{25}{8}$                       (2) 3                      (3) 1                      (4)  $\frac{3}{5}$

**007** Which one of the following is a pythagorean triplet in which one side differs from the hypotenuse by two units ?

- (1)  $(2n+1, 4n, 2n^2 + 2n)$                       (2)  $(2n, 4n, n^2 + 1)$   
(3)  $(2n^2, 2n, 2n+1)$                       (4)  $(2n, n^2 - 1, n^2 + 1)$

**008** The ratio of the circumference of 2 wheels is 5:3. Find the ratio of the radii of the 2 wheels.

- (1) 5:3                      (2) 3:5                      (3) 9:10                      (4) 10:9

**009** The following marks are obtained by a student in different subjects during formative assessment in 8 subjects. Find median.

7, 3, 8, 0, 9, 10, 8, 7

- (1) 7.5                      (2) 9                      (3) 6.5                      (4) 8, 7

**010** Factorize  $4a^2 - 9b^2 - 2a - 3b$ . Identify the correct factorize answer.

- (1)  $(2a - 3b)(2a - 3b - 1)$                       (2)  $(2a - 3b)(2a + 3b + 1)$   
(3)  $(2a + 3b)(2a + 3b + 1)$                       (4)  $(2a + 3b)(2a - 3b - 1)$

**011**  $\sqrt[4]{\sqrt[3]{2^2}}$  is equal to :

- (1)  $2^{-\frac{1}{6}}$                       (2)  $2^{\frac{1}{6}}$                       (3)  $2^{-6}$                       (4)  $2^6$

16/11

**012** Match List-I with List-II :

<b>List-I</b>	<b>List-II</b>
(A) $3m \times 2m$	(I) $16a^2$
(B) $-9m \times -3n$	(II) $6m^2$
(C) $4a^2 \times 4a^2$	(III) $27mn$
(D) $2a \times 8a$	(IV) $16a^4$

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (2) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (4) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

**013** If a 4-digit number  $2x\ y8$  is exactly divisible by 3, then which of the following is the least value of  $(x + y)$  ?

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

**014** Find the digits  $A$  and  $B$  if

$$\begin{array}{r} BA \\ \times A4 \\ \hline 13A0 \\ \hline \end{array}$$

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

**015** One of the factors of  $6x^2 + 5x - 6$  is :

- (1)  $2x - 3$                       (2)  $3x + 2$                       (3)  $2x + 3$                       (4)  $2x - 2$

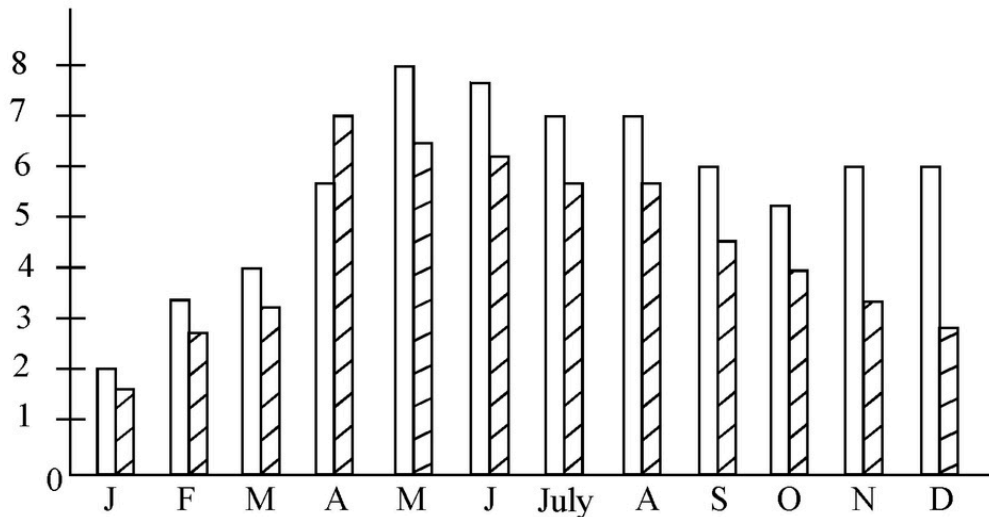
**016** A tree broke at a height of 6m from the ground and its top touched the ground at the distance of 8m from the foot of the tree. Find the height of the tree.

- (1) 10 m                      (2) 14 m                      (3) 16 m                      (4) 2 m

16/11

**017** The following bar graph shows the average daily hours of sunshine in two cities during the year. Observe the double bar graph and answer the following question.

In which month is the difference between average hours of sunshine of two cities least?



- (1) December      (2) May      (3) January      (4) February

**018** If one of the number of a Pythagorean triplet is 10, the triplet is :

- (1) (23, 25, 10)      (2) (10, 24, 26)      (3) (5, 8, 10)      (4) (3, 4, 10)

**019** If one number is twice the other number and the sum of the squares of two numbers is 50,000, then find the difference of numbers.

- (1) 10000      (2) 50      (3) 100      (4) 10

**020** Evaluate :  $\sqrt[3]{1372} \times \sqrt[3]{1458}$

- (1) 126      (2) 136      (3) 116      (4) 106

**021** If  $a = 12$ ,  $b = -5$  and  $c = -7$ , then the value of  $a^3 + b^3 + c^3$  is :

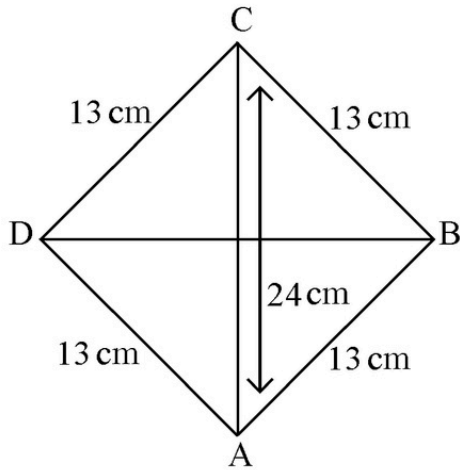
- (1) 1360      (2) 420      (3) 1260      (4) -1260

**022** The value of a smart phone depreciates every year by 40%. Find out its value after 2 years if its present value is ₹ 70000.

- (1) ₹ 28000      (2) ₹ 16800      (3) ₹ 25200      (4) ₹ 35000

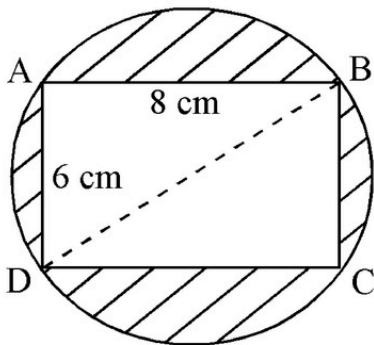
Subject

**023** Find the area of Rhombus  $ABCD$  having each side equal to 13 cm and one of its diagonal is 24 cm.



- (1)  $80 \text{ cm}^2$       (2)  $140 \text{ cm}^2$       (3)  $100 \text{ cm}^2$       (4)  $120 \text{ cm}^2$

**024** A rectangle  $ABCD$  is inscribed in a circle having sides 8 cm and 6 cm. Find the area of the shaded region.



- (1)  $32 \text{ cm}^2$       (2)  $30.5 \text{ cm}^2$       (3)  $40.5 \text{ cm}^2$       (4)  $36 \text{ cm}^2$

**025** Find  $m$  so that  $(-5)^{m+1} \times (-5)^{m-1} = (-5)^3$

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

[S.01]

**026** Arun bought binder clips at the rate of 5 for a rupee. He had to sell them at the rate of 6 for a rupee. Find his loss percent in the transaction.

- (1)  $\frac{40}{3}\%$                       (2)  $\frac{50}{3}\%$                       (3)  $\frac{10}{3}\%$                       (4)  $\frac{20}{3}\%$

**027** For what value of  $m$

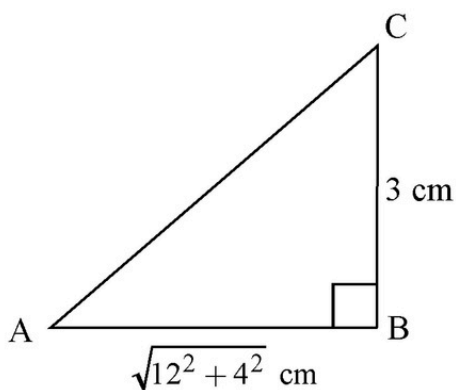
$$xy^2m = (2xy + 5y)^2 - (2xy - 5y)^2$$

- (1) -100                      (2) 100                      (3) 40                      (4) -40

**028** Which is the like term as  $84xy^2z^2$  ?

- (1)  $-3 \times 8 \times x \times y \times z \times z$                       (2)  $12 \times 7 \times x \times x \times y \times z \times z$   
 (3)  $-5 \times 6 \times x \times x \times y \times y \times z$                       (4)  $6 \times 4 \times x \times z \times y \times z \times y$

**029**  $ABC$  is a right angled triangle, which is right angled at  $B$ . If  $AB = \sqrt{12^2 + 4^2}$  cm,  $BC = 3$  cm, then find out the perimeter of the given figure :



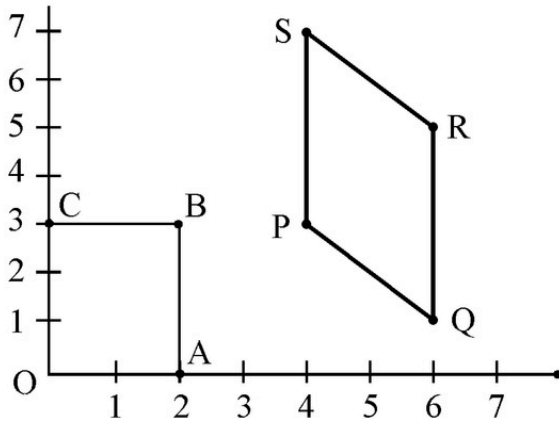
- (1)  $(4\sqrt{10} + 16)$  cm                      (2)  $(16\sqrt{10} + 4)$  cm  
 (3)  $(8\sqrt{10} + 2)$  cm                      (4)  $(2\sqrt{10} + 8)$  cm

**030** A bicycle wheel makes 1000 revolutions in moving 2 km. Find the diameter of the wheel.

- (1) 1.57 m                      (2) 1.27 m                      (3) 6.036 m                      (4) 0.636 m

[Solve]

031 Identify the correct coordinates of the vertices of rectangle OABC from the adjoining figure.



- (1)  $O(0,0), A(2,0), B(2,3), C(0,3)$
- (2)  $P(4,3), Q(6,1), R(6,5), S(4,7)$
- (3)  $O(0,0), A(0,2), B(3,2), C(3,0)$
- (4)  $O(1,1), A(0,2), B(2,3), C(3,3)$

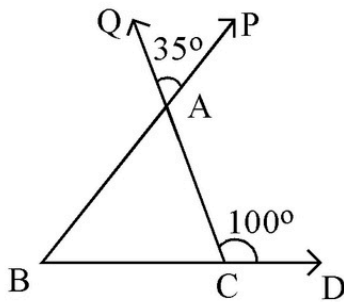
032 A cistern can be filled by one tap in 4 hours and by another tap in 3 hours. How long will it take to fill it, if both taps are opened together ?

- (1)  $\frac{11}{7}$  hours
- (2)  $\frac{12}{7}$  hours
- (3)  $\frac{7}{12}$  hours
- (4)  $\frac{7}{11}$  hours

033 Choose the correct remainder when  $p(x):3x^2 + 4x + 5$  is divided by  $g(x):x - 2$  :

- (1) 20
- (2) 25
- (3) 30
- (4) 35

034 In the Fig.  $\angle QAP = 35^\circ$  and  $\angle ACD = 100^\circ$ . Find  $\angle ABC$  :



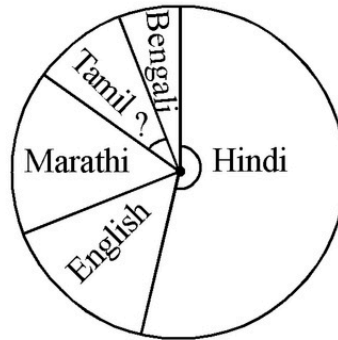
- (1)  $55^\circ$
- (2)  $65^\circ$
- (3)  $75^\circ$
- (4)  $50^\circ$

[S.91]





040 In India people speak different languages. Choose the correct option in degrees which represent the number of people speaking Tamil using the information given in the chart :

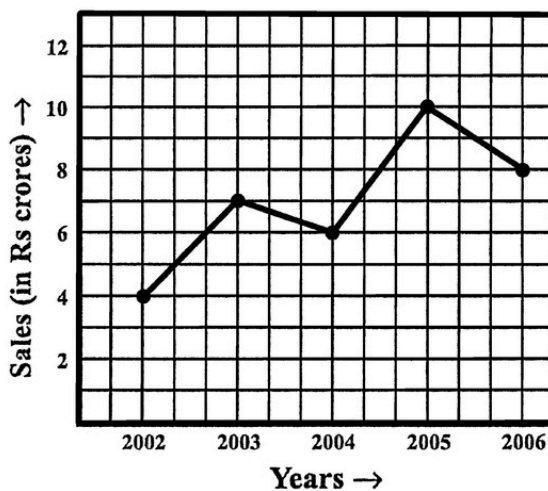


Language	Number of People
(i) Hindi	40
(ii) English	12
(iii) Marathi	9
(iv) Tamil	7
(v) Bengali	4
<b>Total</b>	<b>72</b>

- (1)  $45^\circ$                       (2)  $35^\circ$                       (3)  $20^\circ$                       (4)  $60^\circ$

041 The following line graph shows the yearly sales figures for a manufacturing company. Study the line graph and answer the following question.

The average sales of the company of the even years will be,

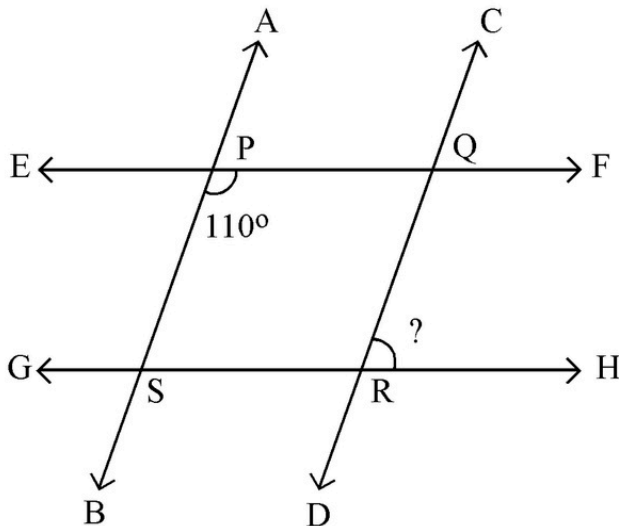


- (1) 7                      (2) 8.5                      (3) 6                      (4) 18

1691

- 042** 15 boys earn ₹ 900 in 5 days. How much will 20 boys earn in 7 days ?  
 (1) ₹ 1680                      (2) ₹ 1720                      (3) ₹ 1420                      (4) ₹ 2008

**043** If  $AB \parallel CD$  and  $EF \parallel GH$  then find  $\angle QRH$  :



- (1)  $105^\circ$                       (2)  $50^\circ$                       (3)  $110^\circ$                       (4)  $70^\circ$

- 044** In what time will ₹ 160000 amount to ₹ 176400 at 5% per annum compounded annually?  
 (1) 4 years                      (2) 3 years                      (3) 2 years                      (4) 1 year

**045** Anita borrows ₹ 1000 at 10% p.a. simple interest for 3 years. She immediately lends this money at compound interest at the same rate and for the same time. What is her gain at the end of 3 years ?

- (1) ₹ 40                      (2) ₹ 41                      (3) ₹ 30                      (4) ₹ 31

**046** Mohan can do a piece of work in 25 days alone and Rohan can finish it in 20 days. They work together for 5 days & then Mohan left the work. In how many days will Rohan finish the remaining work ?

- (1) 20 days                      (2) 9 days                      (3) 14 days                      (4) 11 days

SOL



**SECTION - 'B' : ENGLISH**

**051** Choose the correct option :

The synonym of 'take' is \_\_\_\_\_

- (1) except                      (2) accept                      (3) ignore                      (4) refuse

**052** Choose the correct option :

The antonym of 'Stiff' is \_\_\_\_\_.

- (1) bland                      (2) dark                      (3) limp                      (4) bright

**053** Choose the correct option to fill in the blank :

They aren't good scuba divers, \_\_\_\_\_ ?

- (1) could they ?    (2) are they ?    (3) can they ?    (4) will they ?

**054** Which of the following is an assertive sentence ?

- (1) Do you enjoy Idli Sambhar ?  
(2) You are requested to stand in line.  
(3) The Taj is a beautiful monument.  
(4) Hurrah ! the school team has won the match.

**055** Match the poems/books with poets/authors :

<b>Poems/Books</b>	<b>Poets/Authors</b>
(A) Vocation	(I) Rabindranath Tagore
(B) Christmas Carol	(II) Jawaharlal Nehru
(C) Geography Lesson	(III) Charles Dickens
(D) Discovery of India	(IV) Zulfikar Ghose

Choose the correct answer from the options given below :

- (1) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)  
(2) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)  
(3) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)  
(4) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

**Direction :** Read the passage given below : (Q. No. 056 to 060)

Valentin Hauy developed a system of reading for the blind. He printed normal letters in relief that could be felt by a touch of finger. He also started a school for the blind children. Hauy's system of reading for the blind was very useful. But it was quite difficult to learn. Moreover, it was only a reading system. There was no way for the blind to write in this system. In 1819, a ten-year-old blind boy named Louis Braille entered Hauy's school. He was an intelligent student and quickly learnt to read with the help of embossed letters. But he soon realised the disadvantages in Hauy's system. He made up his mind to develop an easier method of reading and writing for the blind. And in 1824, when he was only 15, Braille invented a system of writing which has been accepted all over the world. He was yet a student in Hauy's school. This school is now known as the National Institute for Blind Children. It is supported by the French government.

On the basis of your understanding of the passage, answer the following questions :

**056** What according to the passage was the major disadvantage in Hauy's system ?

- (1) It was difficult to comprehend.
- (2) Hauy's system was difficult for the blind to use for writing.
- (3) It was easy to learn.
- (4) It was a regular reading and writing system.

**057** What according to you is Louis Braille known for ?

- (1) A blind boy
- (2) A general student in Hauy's school
- (3) The inventor of a system of reading and writing for the blind
- (4) A ten year old boy

**058** He printed letters in relief.

Here the word - 'relief' means \_\_\_\_\_.

- |                 |                         |
|-----------------|-------------------------|
| (1) engraved    | (2) in a depressed form |
| (3) normal form | (4) in a raised form    |

**059** Give the *synonym* of the word - 'invent'.

- |            |             |              |             |
|------------|-------------|--------------|-------------|
| (1) create | (2) realize | (3) discover | (4) unearth |
|------------|-------------|--------------|-------------|

**060** Give the *antonym* of the word - 'develop'.

- |          |             |                |          |
|----------|-------------|----------------|----------|
| (1) grow | (2) decline | (3) overweight | (4) ripe |
|----------|-------------|----------------|----------|

14/10/23

**061** Match the following books/poems with their authors/poets :

<b>Books / Poems</b>	<b>Authors / Poets</b>
(A) Treasure Island	(I) Major H.P.S. Ahluwalia
(B) Swami and Friends	(II) Robert Louis Stevenson
(C) Harry Potter	(III) R.K. Narayan
(D) The Summit Within	(IV) J.K. Rowling

Choose the correct answer from the options given below :

- (1) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (3) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (4) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

**062** Choose the correct option.

The mason is building the wall.

The above sentence would be written in passive form as :

- (1) The wall are being built by the mason.
- (2) The wall is being built by the mason.
- (3) The mason is being built by the wall.
- (4) The wall was being built by the mason.

**063** Choose the correct option.

His \_\_\_\_\_ is in the ascendant.

- (1) galaxy                      (2) universe                      (3) star                      (4) luckily

**064** Identify the error and choose the correct option.

Energy is very essential in succeed in life.

- (1) in-to                      (2) is-was                      (3) in-for                      (4) is-were

**065** Choose the correct option :

Ramesh and his brother \_\_\_\_\_ dancing.

- (1) was                      (2) were                      (3) will                      (4) would

16/11/23

**066** Choose the correct option that has the right rearrangement of words to make a meaningful sentence.

- (A) butter
- (B) is a
- (C) bread and
- (D) combination
- (E) tempting

Choose the correct answer from the options given below :

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

**067** Choose the correct option that has the right rearrangement of words to make a meaningful sentence.

- (A) is important
- (B) rules
- (C) it
- (D) to observe
- (E) traffic

Choose the correct answer from the options given below :

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

**068** Choose the correct option to fill in the blanks

The patient was \_\_\_\_\_ weak to walk without help.

- (1) too
- (2) little
- (3) much
- (4) few

**069** Choose the correct preposition :

Are you looking for anything \_\_\_\_\_ particular ?

- (1) over
- (2) among
- (3) above
- (4) in



**070** Choose the correct option and fill in the blanks :

My sister said, "You lied to me yesterday."

My sister said that \_\_\_\_\_ to her \_\_\_\_\_.

- (1) you had lied, yesterday
- (2) I had lied, yesterday
- (3) I had lied, the previous day
- (4) you had lied, the previous day

**071** Identify the subject in the following sentence :

The Board of Directors has arrived.

- (1) The Board
- (2) The Board of Directors
- (3) Directors
- (4) The Board of

**072** Choose the correct option :

Sam is a \_\_\_\_\_ man.

- (1) first
- (2) handsome
- (3) half
- (4) delicious

**073** Choose the correct option to fill in the blank :

The \_\_\_\_\_ man died in the hospital.

- (1) injury
- (2) injure
- (3) to injure
- (4) injured

**074** Identify the positive degree from the following options :

- (1) Hottest
- (2) Hot
- (3) Hotter
- (4) Hotters

**075** Choose the correct option to complete the following sentence :

Did \_\_\_\_\_ see her paintings ?

- (1) her
- (2) them
- (3) you
- (4) him

18/19

## SECTION - 'C' : GENERAL SCIENCE

- 076** Choose the feasible displacement reaction from the options given below :
- (1) Copper sulphate + Zinc granules      (2) Iron sulphate + Copper turnings  
(3) Zinc sulphate + Iron nails              (4) Zinc sulphate + Copper turnings
- 077** Plastic containers or boxes are mostly preferred to store food items because these are -
- (1) non biodegradable  
(2) non reactive  
(3) poor conductor of heat and electricity  
(4) more expensive
- 078** If current is passed through copper sulphate solution copper gets deposited on the plate connected to -
- (1) positive terminal of battery              (2) negative terminal of battery  
(3) when battery is not connected          (4) copper deposited on both plates
- 079** ISRO stands for -
- (1) Indian Science Research Organisation  
(2) International Science Research Organisation  
(3) Indian Space Research Organisation  
(4) Interstate Research Organisation
- 080** Identify which is not a water pollutant from the following :
- (1) Sewage              (2) Algae              (3) Fertilisers              (4) Weedicides
- 081** Which of these gases are responsible for global warming ?
- (1) CO<sub>2</sub>, methane and water vapour      (2) CO<sub>2</sub>, sulphur dioxide, water vapour  
(3) CO, CO<sub>2</sub> and water vapour              (4) CO<sub>2</sub>, ozone and methane
- 082** The bread or idli dough becomes fluffy because of -
- (1) Heat    (2) Grinding  
(3) Growth of yeast cells                      (4) Kneading

**083** Identify the name of a book carrying information about endangered species from the following :

- (1) Red Data Book (2) Record Data Book  
(3) Record Book (4) Observation Book

**084** Identify the traditional methods of Irrigation -

- (a) Chain pump  
(b) Lever system  
(c) Sprinkler system  
(d) Drip system
- (1) Both (a) and (c) (2) Both (a) and (b)  
(3) Both (c) and (d) (4) Both (d) and (a)

**085** Name a National Park situated in Pachmarhi Biosphere Reserve from the following -

- (1) Satpura National Park (2) Bori National Park  
(3) Jim Corbett National Park (4) Tawa National Park

**086** Ankush has just entered his adolescence years. He wishes to know what should be eaten to remain healthy. Which of the following set of food should he consume to remain fit and healthy ?

- (1) Milk, rice, dal, leafy vegetables  
(2) Chips, leafy vegetables, milk, burger  
(3) Milk, dal, leafy vegetables, fried snacks  
(4) Dal, rice, burger, chips

**087** At puberty which hormone is secreted by ovaries ?

- (1) Estrogen (2) Growth hormone  
(3) Testosterone (4) Insulin

**088** Metamorphosis in frog is controlled by this hormone -

- (1) Insulin (2) Thyroxine (3) Estrogen (4) Adrenaline

16/11

**089** Tadpole develops into an adult frog by the process of -

- (1) Fertilisation (2) Metamorphosis (3) Budding (4) Adaptation

**090** Force acting opposite to the direction of motion of a body is -

- (1) Gravitational Force (2) Electrical Force  
(3) Friction Force (4) Atmospheric Pressure

**091** Human ears are sensory organs that help to hear sound. Its outer portion can be seen. The rest of the delicate ear is buried deep inside the skull. Identify the correct sequence from Outer ear to Inner ear -

- (A) Auditory Nerve  
(B) Ear drum  
(C) Pinna  
(D) Ear tube  
(E) INNER EAR

Choose the correct answer from the options given below :

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

**092** Match List I with List II :

**List-I**

**List-II**

- |                       |   |
|-----------------------|---|
| (A) Braille           | (I) Splitting of white light into seven colours                   |
| (B) Kaleidoscope      | (II) Left of the object appears right and right appears left      |
| (C) Dispersion        | (III) Resource for visually (Blind) challenged person             |
| (D) Lateral inversion | (IV) Beautiful patterns are formed because of multiple reflection |

Choose the correct answer from the options given below :

- (1) (A)-(I), (B)-(IV), (C)-(III), (D)-(II)  
(2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)  
(3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)  
(4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

- 093** Identify the correct sequence of process that results in lightning -
- (A) Magnitude of accumulated charge becomes large.
  - (B) Accumulation of negative charge near the lower edges of cloud.
  - (C) Air becomes conductor of charges.
  - (D) Accumulation of positive charge near the upper edges of cloud.
  - (E) Negative and positive charge meet producing streaks of bright light and sound called as lightning.

Choose the correct answer from the options given below :

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

- 094** The calorific value of a fuel is expressed in the unit -

- (1) g/J
- (2) kg/J
- (3) kJ/kg
- (4) J/g

- 095** To electroplate silver (Ag) on a metal object, what will you choose as cathode, anode and electrolyte ?

- (1) Cathode - metal object, Anode - silver bar, Electrolyte - copper salt
- (2) Cathode - silver bar, Anode - metal object, Electrolyte - silver salt
- (3) Cathode - metal object, Anode - silver bar, Electrolyte - silver salt
- (4) Cathode - copper rod, Anode - silver bar, Electrolyte - copper salt

- 096** Rashi was unable to hold the greasy tumbler of milk in her hand. It would be because-

- (1) Greasing has made the surface smooth, increasing the friction
- (2) Greasing has made the surface rough, decreasing the friction
- (3) Greasing has made the surface smooth, reducing the friction
- (4) Greasing has made the surface rough, increasing the friction

- 097** 'Combine' is a machine. Identify from the following for which it is used ?

- (1) For harvesting and threshing
- (2) For sowing and harvesting
- (3) For threshing and sowing
- (4) For irrigation and sowing

**098** Which of the following statements is incorrect for CNG ?

- (1) It can be easily transported through pipes.
- (2) It is more polluting.
- (3) It is stored under high pressure.
- (4) It is used as fuel for transport vehicles.

**099** Amish has to demonstrate a Science Activity on Ignition temperature from the objects given to him like paper sheets, candle, matchbox and water. The correct sequence for the activity to work will be -

- (A) Light the candle.
- (B) Pour the water in one of the cups.
- (C) Continue heating both the cups.
- (D) Make two paper cups by folding a sheet of paper.
- (E) Heat both the cups separately with a candle.

Choose the correct answer from the options given below :

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

**100** Match List - I with List - II :

<b>List-I</b>	<b>List-II</b>
<b>Cell organelles</b>	<b>Function</b>
(A) Nucleus	(I) Contains cell organelles
(B) Cell membrane	(II) Control center of all activities of cell
(C) Chromosomes	(III) Transfer of characters
(D) Cytoplasm	(IV) Provide shape and protection

Choose the correct answer from the options given below :

- (1) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

## SECTION - 'D' : SOCIAL STUDIES

101 Match List I with List II :

List-I	List-II
(A) Intensive subsistence	(I) Slash and burn
(B) Shifting cultivation	(II) Amount of capital use is large
(C) Nomadic herding	(III) Prevalent in the thickly populated areas
(D) Commercial farming	(IV) Move from place to place with their animals

Choose the correct answer from the options given below :

- (1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)    (2) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)  
(3) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)    (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

102 Which of the following is a public sector company ?

- (1) Maruti Suzuki India Limited                      (2) Anand Milk Union Limited  
(3) Steel Authority of India Limited                (4) Pesticide Factory of Union Carbide

103 Arrange in chronological order :

- (A) Tughlaq Dynasty  
(B) Early Turkish  
(C) Khalji Dynasty  
(D) Rajput Dynasty  
(E) Lodi Dynasty

Choose the correct answer from the options given below :

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

104 Match List I with List II :

List-I	List-II
(A) Khilafat Agitation	(I) Mohammad Ali Jinnah
(B) Rowlatt Act	(II) Viceroy Curzon
(C) Salt March	(III) Shaukat Ali
(D) Partition of Bengal	(IV) Mahatma Gandhi

Choose the correct answer from the options given below :

- (1) (B) - (I), (C) - (II), (D) - (III), (A) - (IV)  
(2) (A) - (III), (B) - (I), (C) - (IV), (D) - (II)  
(3) (D) - (IV), (B) - (III), (C) - (I), (A) - (II)  
(4) (A) - (III), (C) - (II), (D) - (I), (B) - (IV)

105 Match List I with List II :

**List-I**

- (A) Right to Equality
- (B) Right to Freedom
- (C) Right to Freedom of Religion
- (D) Right against Exploitation

**List-II**

- (I) Prohibits human trafficking
- (II) Equal before law
- (III) The right to form associations
- (IV) The right to practise any religion of their choice

Choose the correct answer from the options given below :

- (1) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
- (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (3) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

106 Identify the crop which is not classified as a plantation crop ?

- (1) Rice
- (2) Tea
- (3) Sugarcane
- (4) Cashew

107 Who founded the "Brahmo Samaj" ?

- (1) Dayanand Saraswati
- (2) Raja Rammohan Roy
- (3) Ishwar Chandra Vidyasagar
- (4) Pandita Ramabai

108 Choose the correct meaning of 'Patent'

- (1) It means adding the value of any commodity.
- (2) It means enhancing the usability of any thing.
- (3) It means reducing cost of production.
- (4) It means the exclusive right over any idea or invention.

109 Who am I ?

I am founder of Sur dynasty.

- (1) Humayun
- (2) Sher Shah
- (3) Alauddin
- (4) Genghis Khan

110 Identify the source of funds for the Gram Panchayats.

- (1) Income tax
- (2) Government school's fee
- (3) Taxes on national highways
- (4) Taxes on houses, market places etc.

111 Choose the landform, which is not formed by the river ?

- (1) Ox-bow
- (2) Levees
- (3) Meanders
- (4) Loess

[Set]

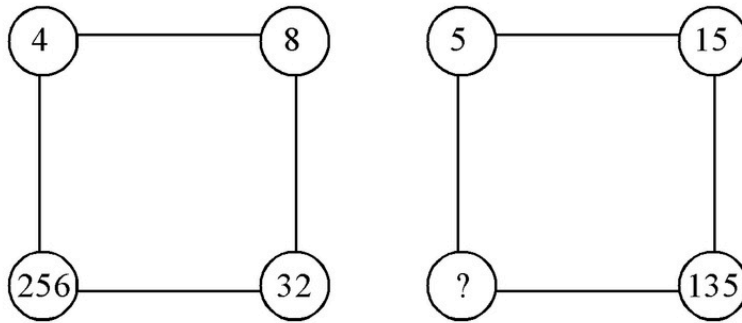


- 112** Iron made from iron ore is the product of \_\_\_\_\_.
- (1) Marine industry (2) Mineral based industry  
(3) Agro based industry (4) Forest based industry
- 113** When and to whom the British Parliament transferred their powers in order to ensure a more responsible management of Indian affairs ?
- (1) 1857, East India Company  
(2) 1859, Lawrence - The Viceroy  
(3) 1858, Governor General with the title of Viceroy  
(4) 1887, Dinshaw Wacha
- 114** Which Article of the Constitution of India provides every citizen the Fundamental Right to life including the Right to health ?
- (1) Article 15 (2) Article 360 (3) Article 12 (4) Article 21
- 115** Choose the meaning of the word Metamorphic from the following -
- (1) Fire (2) Settle down  
(3) Change of form (4) Air
- 116** Match List I with List II :
- | <b>List-I</b>              | <b>List-II</b>          |
|----------------------------|-------------------------|
| (A) The Brahmo Samaj       | (I) Jyotirao Phule      |
| (B) The Ramkrishna Mission | (II) Swami Dayanand     |
| (C) Gulamgiri              | (III) Raja Rammohan Roy |
| (D) Arya Samaj             | (IV) Swami Vivekananda  |
- Choose the correct answer from the options given below :
- (1) (B) - (IV), (C) - (I), (D) - (II), (A) - (III)  
(2) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)  
(3) (C) - (II), (D) - (III), (A) - (IV), (B) - (I)  
(4) (D) - (II), (C) - (III), (B) - (I), (A) - (IV)
- 117** Choose the correct definition of 'birth rate' from the following options :
- (1) The number of births per year  
(2) The change in total population during a specific time  
(3) The number of live births per 1,000 people  
(4) The number of live births per year, per 10,000 people

- 118 The neighbourhood markets are the ones which \_\_\_\_\_.
- (1) are far from our house                      (2) are very expensive  
(3) provide all necessary items                (4) provide less items
- 119 The source of fresh water available for human use is -
- (1) Rivers                      (2) Rain                      (3) Drains                      (4) Water vapour
- 120 The Khilafat Movement was led by whom, from the following ?
- (1) Mahatma Gandhi                      (2) Mohammad Ali and Shaukat Ali  
(3) C. R. Das                      (4) Mahamud Ali
- 121 The Veda Samaj established in Madras in 1864 worked for which of the following causes?
- (1) Promotion of man  
(2) To abolish caste distinctions and for improving the conditions of women  
(3) Poor people  
(4) Against child marriage
- 122 The Ladakh desert is mainly inhabited by -
- (1) Christians and Muslims                      (2) Buddhists and Muslims  
(3) Christians and Buddhists                      (4) Only Buddhists
- 123 From the following options, choose which is not true about the Internet ?
- (1) Provides worldwide information  
(2) Provides interaction  
(3) Allows moving physically from one place to another  
(4) Enhances E-Commerce
- 124 From the following, choose the region that is known as 'Orchards of the World'.
- (1) Coniferous region                      (2) Tropical region  
(3) Mediterranean region                      (4) Temperate region
- 125 Sandstone is an example of \_\_\_\_\_ rock.
- (1) Igneous                      (2) Metamorphic  
(3) Sedimentary                      (4) Extrusive igneous rock

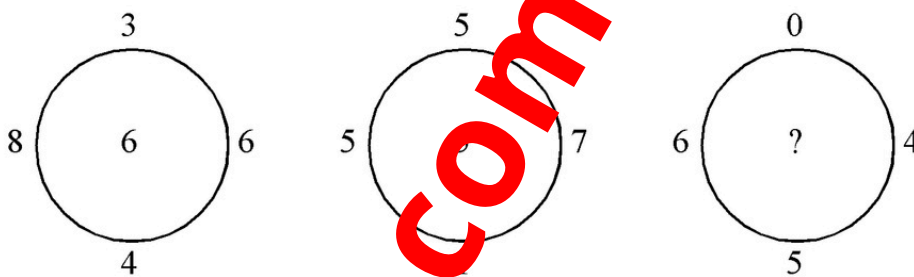
SECTION - 'E' : INTELLIGENCE

126 Find the missing number



- (1) 3800                      (2) 3635                      (3) 3435                      (4) 3400

127 Find the missing term out of the options given below after studying the relationship among the given figures



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

128 Decipher the pattern (study the pattern and fill in the blank)

5	40	7
11	77	
3	?	

- (1) 29                              (2) 43                              (3) 52                              (4) 30

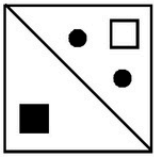
[S]91

129 Which letter will come in the place of '?'



- (1) M                      (2) N                      (3) O                      (4) P

130 Which of the following is the water image of the given figure ?

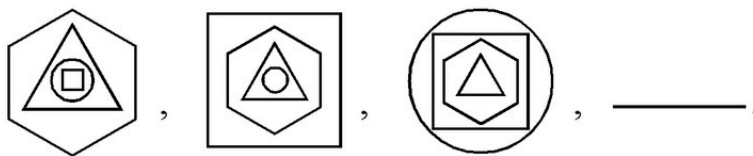


- (1) (2) (3) (4)

131 Identify the correct mirror image of word BLINK  $\begin{matrix} X \\ \updownarrow \\ Y \end{matrix}$  along the line XY.

- (1) KILNB                      (2) BLINK                      (3) KNLB                      (4) BILNB

132 Find the next pattern in the sequence



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

133 Complete the analogy.

Thermometer : Temperature :: \_\_\_\_\_ : Current.

- (1) Ammeter      (2) Voltmeter      (3) Anemometer      (4) Berometer

134 Arrange the given words in the sequence in which they occur in the dictionary.

- (A) Aaerstd  
(B) Aaersted  
(C) Amquarine  
(D) Acgledhi  
(E) Acgledih

Choose the correct answer from the options given below :

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

135 Find the missing word, which has the same relationship with the other word as that between words of different pair.

Pie : Cake ::  $\pi$  : \_\_\_\_\_.

- (1) Pasta      (2) Pastry      (3) Mathematics      (4) Noodles

136 Complete the analogy.

Work : Joule :: \_\_\_\_\_ : Watt.

- (1) Volume      (2) Area      (3) Time      (4) Power

137 Complete the analogy.

Chennai : Tamil Nadu :: Kohima : \_\_\_\_\_.

- (1) Nagaland      (2) Gujarat      (3) Orissa      (4) Meghalaya

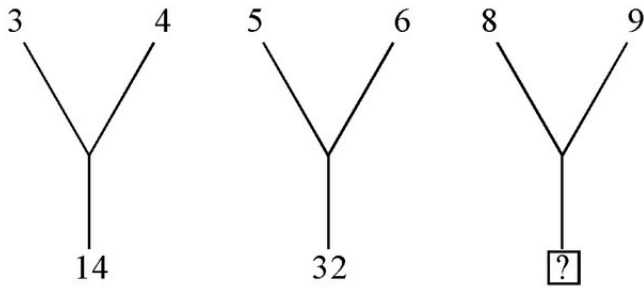
138 Choose the odd one out.

ZXV, LJH, IGE, UTR, PNL

- (1) PNL      (2) IGE      (3) UTR      (4) ZXV

169

139 Choose the option that will replace question mark (?) in the following -



- (1) 28                      (2) 42                      (3) 74                      (4) 72

140 Find the odd one out.

- (1) Alphonso              (2) Kesar                      (3) Malgova              (4) Sherbati

141 Find the odd one out.

- (1) Rhombus              (2) Square                      (3) Rectangle              (4) Kite

142 Choose the odd one out.

- (1) Scissors              (2) Knife                      (3) Axe                      (4) Hammer

143 Complete the analogy

36 : 225 :: 1225 : \_\_\_\_\_.

- (1) 7929                      (2) 6929                      (3) 5929                      (4) 4929

144 Find the missing number, which has the same relationship with the other number on the basis of the relation between the numbers in the given pair.

16 : 41 :: 20 : \_\_\_\_\_.

- (1) 71                      (2) 53                      (3) 44                      (4) 67

TS/18

145  $\frac{2}{5} : \frac{8}{25} :: \frac{11}{15} : \text{_____}$ .

- (1)  $\frac{1331}{225}$                       (2)  $\frac{121}{3375}$                       (3)  $\frac{111}{155}$                       (4)  $\frac{128}{55}$

146 If word MATH is coded as 26, 2, 40, 16, then code for the word BOOK is -

- (1) 2, 15, 15, 11    (2) 10, 20, 20, 44  
(3) 4, 30, 30, 22    (4) 1, 12, 12, 14

147 A, B, C, D are four friends. A is shorter than B but taller than C who is shorter than D. Who is shortest among all -

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

148 Choose the correct alternative from the given options :

If 8<sup>th</sup> of April falls on Monday, what Day would be the 30<sup>th</sup> May of that year ?

- (1) Sunday                      (2) Monday                      (3) Tuesday                      (4) Wednesday

149 If the English alphabets are divided into two equal halves from A to M and N to Z such as A corresponds to N, then which letter in the later half would be corresponding to letter K.

- (1) X                                      (2) Y                                      (3) Z                                      (4) W

150 Arrange the given responses in a meaningful sequence -

- (A) Leaf  
(B) Fruit  
(C) Stem  
(D) Root  
(E) Flower

Choose the correct answer from the options given below :

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

SPACE FOR ROUGH WORK

---

**Mendhar.com**

[S101]

EN/EN/EN/9/23\_J ]