

NMAT 2026 ***Official Sample*** ***Paper***

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Quantitative Skills

Brij entered into a partnership with Harish and they invested money in the ratio 9 : 7 respectively. Brij invested money for a certain number of months and Harish withdrew his capital after 8 months. At the end of the year, Brij and Harish received profits in the ratio 9 : 8. Brij then joined Raman's business. Raman started the business with Rs 4,500 and Brij joined him later and invested Rs 3,000. At the end of the year, Raman and Brij divided the profit in the ratio 2 : 1. What was the difference between the number of months for which Brij's capital was used in his partnership with Raman and the number of months for which Brij's capital was used in his partnership with Harish?

- ☐ A. 2 months
- ☐ B. 3 months
- ☐ C. 4 months
- ☐ D. 5 months
- ☐ E. 6 months

Quantitative Skills

A student used a faulty measuring tape that incorrectly assigned L as the length of a certain object. The student was later told that the tape always assigns lengths that are $x\%$ greater than actual lengths. The student attempted to determine the actual length of the object by reducing L by $y\%$. However, after this corrective attempt, the value obtained was $z\%$ less than the actual length of the object. What is the value of z in terms of x and y ?

- ☐ A. $\frac{(100+x)(100+y)}{100} - 100$
- ☐ B. $100 - \frac{(100-x)(100+y)}{100}$
- ☐ C. $100 - \frac{(100+x)(100-y)}{100}$
- ☐ D. $100 - \frac{100(100-y)}{(100+x)}$
- ☐ E. $100 - \frac{100(100+y)}{(100-x)}$

Quantitative Skills

Directions: A question is followed by two statements, labelled (1) and (2). Using the information provided and general knowledge, decide whether the information given is sufficient to solve the problem.

A shopkeeper offered boots for sale at a price that would give a profit of 40% of the original cost. What was the original cost of the boots?

- (1) After further reducing this sale price by 10%, the shopkeeper sold the boots at a profit of 500 dollars.
- (2) The shopkeeper sold the boots for 2,125 dollars.

- ☐ A. Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
- ☐ B. Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
- ☐ C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- ☐ D. EACH statement ALONE is sufficient.
- ☐ E. Statements (1) and (2) TOGETHER are NOT sufficient.

Quantitative Skills

A box contains exactly 18 cards—5 King cards, 6 Queen cards and 7 Jack cards. Three cards are drawn at random from this bag. If the three cards are drawn one by one without replacement, then what is the probability that the second card drawn is a Jack?

- ☐ A. $\frac{56}{153}$
- ☐ B. $\frac{7}{18}$
- ☐ C. $\frac{60}{153}$
- ☐ D. $\frac{65}{153}$
- ☐ E. $\frac{137}{306}$

Quantitative Skills

How many 3-digit positive integers can be formed using the digits 1-4 such that none of the digits is repeated and the integer formed is divisible by 12?

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

Quantitative Skills

On selling 630 pens, a shopkeeper makes a profit equal to the selling price of 90 pens. Find the approximate profit percentage.

- ☐ A. 12.5%
- ☐ B. 14.28%
- ☐ C. 16.67%
- ☐ D. 20%
- ☐ E. 22.22%

Quantitative Skills

How many 4-digit positive integers can be formed using the digits 0-9 such that none of the digits is repeated, the hundreds digit is equal to the square of the tens digit, and the integer is divisible by 4?

- ☐ A. 25
- ☐ B. 38
- ☐ C. 30
- ☐ D. 35
- ☐ E. 40

Quantitative Skills

Directions: Refer to the following table(s) and answer the question alongside.

The table shows the expenses (in dollars) per year of a new startup company, ABC Ltd.

Year	Primary Expenses				Secondary Expenses (% of total expenses)
	Employee Salary	Bonus (% of salary)	Rent	Marketing	
2010	20,000	6	3,800	15,000	20
2011	24,000	5	4,300	15,500	25
2012	25,000	4	4,500	14,500	16.67
2013	30,000	5	4,500	14,000	16.67
2014	30,000	6	5,200	15,000	20

What are the total expenses in the year 2010?

- ☐ A. 10,000 dollars
- ☐ B. 25,000 dollars
- ☐ C. 40,000 dollars
- ☐ D. 50,000 dollars
- ☐ E. 60,000 dollars

Quantitative Skills

Directions: Refer to the following table(s) and answer the question alongside.

The table shows the expenses (in dollars) per year of a new startup company, ABC Ltd.

Year	Primary Expenses				Secondary Expenses (% of total expenses)
	Employee Salary	Bonus (% of salary)	Rent	Marketing	
2010	20,000	6	3,800	15,000	20
2011	24,000	5	4,300	15,500	25
2012	25,000	4	4,500	14,500	16.67
2013	30,000	5	4,500	14,000	16.67
2014	30,000	6	5,200	15,000	20

Which of the following is closest to the percentage change in total expenses from 2011 to 2012?

- ☐ A. 10%
- ☐ B. 15%
- ☐ C. 20%
- ☐ D. 23.33%
- ☐ E. 25%

Quantitative Skills

Directions: Refer to the following table(s) and answer the question alongside.

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2012	25,000	4	4,500	14,500	16.67
2013	30,000	5	4,500	14,000	16.67
2014	30,000	6	5,200	15,000	20

What is the average primary expense incurred per year?

- ☐ A. 46,000 dollars
- ☐ B. 46,400 dollars
- ☐ C. 50,000 dollars
- ☐ D. 52,000 dollars
- ☐ E. 52,500 dollars

Quantitative Skills

Directions: Refer to the following table(s) and answer the question alongside.

The table shows the expenses (in dollars) per year of a new startup company, ABC Ltd.

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2012	25,000	4	4,500	14,500	16.67
2013	30,000	5	4,500	14,000	16.67
2014	30,000	6	5,200	15,000	20

In which year were the combined primary expenses the same as the previous year?

- ☐ A. 2011
- ☐ B. 2012
- ☐ C. 2013
- ☐ D. 2014
- ☐ E. It did not happen in any year.

Quantitative Skills

Directions: The following table shows information about the number of employees working in each of the six departments of Company X for five consecutive years, Year 1 through Year 5. Refer to the given table and answer the questions based on it.

Department	Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Manufacturing	380	405	430	470	470
Research	85	81	81	78	80
Purchase	45	45	50	50	54
Marketing	80	75	83	75	85
HR	20	24	24	22	26
Finance	55	50	52	55	60

In which year was the number of employees working in the Manufacturing department closest to 65% of the total number of employees working in the company?

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

Quantitative Skills

Directions: The following table shows information about the number of employees working in each of the six departments of Company X for five consecutive years, Year 1 through Year 5. Refer to the given table and answer the questions based on it.

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Purchase	45	45	50	50	54
Marketing	80	75	83	75	85
HR	20	24	24	22	26
Finance	55	50	52	55	60

The average number of employees per department is how much greater in Year 4 than in Year 3?

- ☐ A. 5
- ☐ B. 6
- ☐ C. 10
- ☐ D. 12
- ☐ E. 20

Quantitative Skills

Directions: The following table shows information about the number of employees working in each of the six departments of Company X for five consecutive years, Year 1 through Year 5. Refer to the given table and answer the questions based on it.

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Purchase	45	45	50	50	54
Marketing	80	75	83	75	85
HR	20	24	24	22	26
Finance	55	50	52	55	60

Which of the following is closest to the percentage increase in the total number of employees working in Company X in Year 2, relative to Year 1?

- ☐ A. 2%
- ☐ B. 7%
- ☐ C. 10%
- ☐ D. 12%
- ☐ E. 15%

Quantitative Skills

Directions: The following table shows information about the number of employees working in each of the six departments of Company X for five consecutive years, Year 1 through Year 5. Refer to the given table and answer the questions based on it.

Department	Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Manufacturing	380	405	430	470	470
Research	85	81	81	78	80
Purchase	45	45	50	50	54
Marketing	80	75	83	75	85
HR	20	24	24	22	26
Finance	55	50	52	55	60

Which of the six departments had the highest percentage increase in the number of employees working in that department in Year 5, relative to Year 1?

- ☐ A. Finance
- ☐ B. HR
- ☐ C. Manufacturing
- ☐ D. Marketing
- ☐ E. Purchase

Quantitative Skills

Directions: A question is followed by two statements, labelled (1) and (2). Using the information provided and general knowledge, decide whether the information given is sufficient to solve the problem.

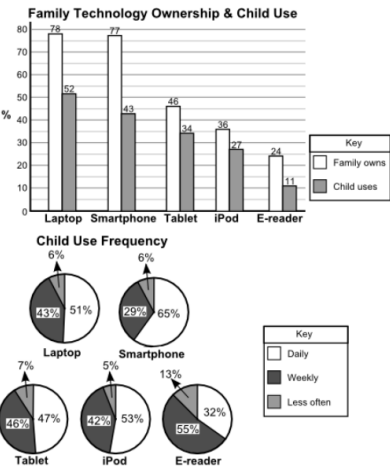
What is the depreciated value of a car on 1st January 1987 that was bought on 1st January 1983?

- (1) The purchase value was Rs 60,000.
- (2) Each year, the value of the car depreciates at the rate of 15% of its value on 1st January in that year.

- ☐ A. Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
- ☐ B. Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
- ☐ C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- ☐ D. EACH statement ALONE is sufficient.
- ☐ E. Statements (1) and (2) TOGETHER are NOT sufficient.

Quantitative Skills

Directions: A group of 25,000 families were asked about the usage of technology by all children aged 3 to 18 years in their family. There were 45,000 children in this age group. The children who used technology were asked how often they used each device. Go through the given graphs and solve the question based on them.

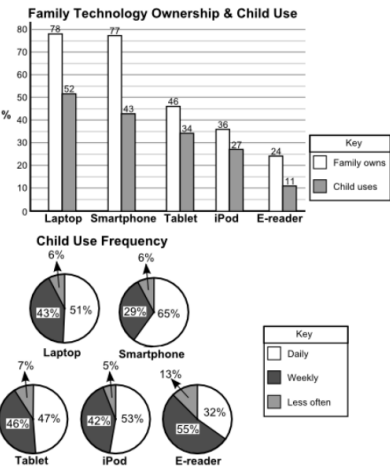


How many children aged 3 to 18 years use the device which is owned by exactly 11,500 families?

- ☐ A. 3,910
- ☐ B. 8,500
- ☐ C. 10,140
- ☐ D. 10,750
- ☐ E. 15,300

Quantitative Skills

Directions: A group of 25,000 families were asked about the usage of technology by all children aged 3 to 18 years in their family. There were 45,000 children in this age group. The children who used technology were asked how often they used each device. Go through the given graphs and solve the question based on them.

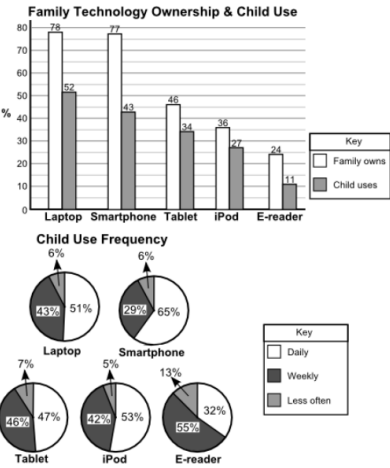


Which device is used daily by exactly 11,934 children who are aged 3 to 18 years?

- ☐ A. Laptop
- ☐ B. Smartphone
- ☐ C. Tablet
- ☐ D. iPod
- ☐ E. E-reader

Quantitative Skills

Directions: A group of 25,000 families were asked about the usage of technology by all children aged 3 to 18 years in their family. There were 45,000 children in this age group. The children who used technology were asked how often they used each device. Go through the given graphs and solve the question based on them.

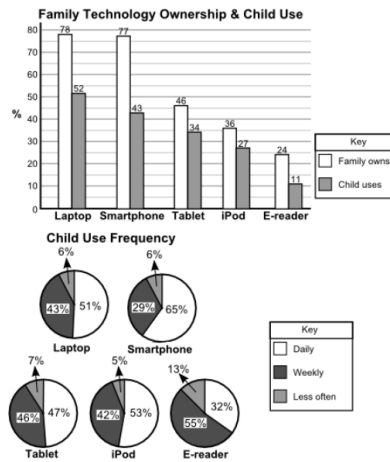


What is the difference between the number of children aged 3 to 18 years who use the smartphone weekly and the number of children aged 3 to 18 years who use the e-reader weekly?

- ☐ A. 2,889
- ☐ B. 4,500
- ☐ C. 5,612
- ☐ D. 6,423
- ☐ E. 8,334

Quantitative Skills

Directions: A group of 25,000 families were asked about the usage of technology by all children aged 3 to 18 years in their family. There were 45,000 children in this age group. The children who used technology were asked how often they used each device. Go through the given graphs and solve the question based on them.



What is the ratio of the total number of children who use the laptop less often to the total number of children who use the e-reader less often?

- ☐ A. 6 : 13
- ☐ B. 7 : 12
- ☐ C. 12 : 7
- ☐ D. 30 : 17
- ☐ E. 24 : 11

Quantitative Skills

Directions: A question is followed by two statements, labelled (1) and (2). Using the information provided and general knowledge, decide whether the information given is sufficient to solve the problem.

What is the value of $a + b$?

- (1) 'a' and 'b' are the roots of the equation $x^3 - 3x^2 + 5x - 9 = 0$.
- (2) 'a' and 'b' are the roots of the equation $x^3 + 9x^2 + 27x + 27 = 0$.

- ☐ A. Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
- ☐ B. Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
- ☐ C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- ☐ D. EACH statement ALONE is sufficient.
- ☐ E. Statements (1) and (2) TOGETHER are NOT sufficient.

Quantitative Skills

Which of the following is the units digit of 17^{222} ?

- ☐ A. 1
- ☐ B. 3
- ☐ C. 4
- ☐ D. 7
- ☐ E. 9

Quantitative Skills

The letters 'W', 'R', 'O', 'L' and 'D' are arranged in all possible ways to form words, which may or may not have any meaning. If all the words are arranged in alphabetical order, then what would be the position of the word 'WORLD' in that ordered arrangement?

- ☐ A. 97
- ☐ B. 113
- ☐ C. 114
- ☐ D. 115
- ☐ E. 119

Quantitative Skills

Directions: A question is followed by two statements, numbered (1) and (2). Using the information provided and general knowledge, decide whether the information given is sufficient to solve the problem.

Set S contains at least two numbers. Is each of the number in Set S equal to 0?

(1) The product of any two numbers in Set S is equal to 0.

(2) The sum of any two numbers in Set S is equal to 0.

- ☐ A. Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
- ☐ B. Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
- ☐ C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- ☐ D. EACH statement ALONE is sufficient.
- ☐ E. Statements (1) and (2) TOGETHER are NOT sufficient.

Quantitative Skills

A warehouse stores 345 litres of HCl , 120 litres of H_2SO_4 and 225 litres of NH_3 . What is the biggest size of the casks in which the acids can be stored?

- ☐ A. 10 litres
- ☐ B. 15 litres
- ☐ C. 25 litres
- ☐ D. 35 litres
- ☐ E. 40 litres

Quantitative Skills

The digital sum of a number is obtained by adding all the digits of a number until a single digit is obtained. What is the digital sum of 19^{100} .

- ☐ A. 1
- ☐ B. 4
- ☐ C. 7
- ☐ D. 9
- ☐ E. 12

Quantitative Skills

Alice and Barry play a game in which they alternately toss a fair coin, beginning with Alice. Alice will win the game if she has a toss in which the coin lands facedown BEFORE Barry has a toss in which the coin lands faceup, and Barry will win the game if he has a toss in which the coin lands faceup BEFORE Alice has a toss in which the coin lands facedown. What is the probability that Barry will win the game?

- ☐ A. $\frac{1}{4}$
- ☐ B. $\frac{5}{16}$
- ☐ C. $\frac{1}{3}$
- ☐ D. $\frac{1}{2}$
- ☐ E. $\frac{2}{3}$

Quantitative Skills

All the employees in a certain bank are either permanent employees or consultant employees. The number of permanent employees in the bank is 7 times the number of consultant employees in the bank. Which of the following cannot be the total number of employees in the bank?

- ☐ A. 40
- ☐ B. 48
- ☐ C. 54
- ☐ D. 64
- ☐ E. 128

Quantitative Skills

Given that $a, b, c, \dots$ and z are positive integers in an arithmetic progression and has a common difference of 4. Which of the following represents the mean of the given integers in term of z ?

- ☐ A. $z - 50$
- ☐ B. $2(z - 50)$
- ☐ C. $26(z + 50)$
- ☐ D. $2(z + 50)$
- ☐ E. $26(z - 50)$

Quantitative Skills

A teacher distributed 50 worksheets among the students of three sections in a class. The worksheets were distributed among 6 students of Section A, 12 students of Section B, and 17 students of Section C. The number of worksheets received by 2 students of Section A was equal to the number of worksheets received by 5 students of Section C. The number of worksheets received by 2 students of Section B was equal to the number of worksheets received by 3 students of Section C. How many worksheets did each student of Section C receive? (Note: Assume that each student of a particular section received the same number of sheets.)

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

Quantitative Skills

Girish bought a car and got a dealers discount of 15% on the original price. He sold it at a profit of 20% on the purchase price. If he had got a discount of 12% on the original price and had sold it for the same profit percentage of the purchase price, what would be the difference in the profit percentages of the two transactions?

- ☐ A. 2%
- ☐ B. 3.6%
- ☐ C. 5%
- ☐ D. 5.6%
- ☐ E. 8%

Quantitative Skills

What is the value of the following expression?

$$2^{\log 2^{\log 2^{\dots \infty}}}$$

- ☐ A. 0
- ☐ B. $\frac{1}{2}$
- ☐ C. 1
- ☐ D. 2
- ☐ E. 4

Quantitative Skills

When working alone at their individual constant rates, Anna can complete a job in 10 days and Beth can complete the same job in 15 days. If they are working together at their individual constant rates, then how many days will they take to complete the job?

- ☐ A. 3 days
- ☐ B. 5 days
- ☐ C. 6 days
- ☐ D. 9 days
- ☐ E. 10 days

Quantitative Skills

A man won \$150,000 in a lottery scheme. After paying 30% as tax to the government, he invested the remaining amount in a fixed deposit at the rate of 10% per annum compounded annually. But he also had to give 20% as tax on interest earned every year. What was the money left in his account after 3 years?

- ☐ A. \$132,804.00
- ☐ B. \$132,269.76
- ☐ C. \$150,090.88
- ☐ D. \$152,279.23
- ☐ E. \$160,089.76

Quantitative Skills

The capital of a company, Estyle, is made of 75,000 preferred shares with a dividend of 15% and 20,000 common shares, with the par value of each type of share as Rs 10. The total profit of Estyle was Rs 240,000 of which Rs. 40,000 was kept in a reserve fund. The remaining profit was distributed to the shareholders. What would be the difference in the dividend percentage given to the common shareholders if the amount kept away in the reserve fund was reduced to Rs 25,000?

- ☐ A. 5.75%
- ☐ B. 7.5%
- ☐ C. 10%
- ☐ D. 12.75%
- ☐ E. 15%

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order to make the sentence correct. Mark E for no error.

Always I try to be punctual. Yesterday, I fell into a ditch while on my way to school.

- ☐ A. Always
- ☐ B. fell
- ☐ C. a ditch
- ☐ D. while on my way
- ☐ E. No error

Language Skills

Directions: Rearrange the jumbled sentences to show the appropriate sequence.

- (A) 27% of the Canadians polled, and about 35% of the Americans polled, also admitted to not being able to disengage from their gadgets.
- (B) The overall aim of the poll was to study the holiday habits of people, and identify countries whose people found it most difficult to disengage completely from their gadgets during vacations.
- (C) Korea was in second place and Japan in third. Indian, Argentinian and Spanish travellers were least bothered about their smart phones.
- (D) The survey also attempted to find out if travellers ever 'embellished' their travel experiences to friends and family.
- (E) According to a poll conducted by an online booking site, an overwhelming majority of respondents from Thailand admitted that just the thought of travelling without their small gadgets caused them to "break out in a cold sweat".

- ☐ A. EDBCA
- ☐ B. EBCAD
- ☐ C. EADBC
- ☐ D. BECAD
- ☐ E. BDECA

Language Skills

Directions: Choose the set of prepositions whose meaning and sequence best fits the 3 given sentences.

1. The low-scoring wicket-feast was in complete contrast to Tuesday's opening match, _____ fast bowlers of both sides enjoying the advantage over batsmen.
2. Ponting arrived in South Africa _____ leading Australia to a 6-1 series win in England.
3. _____ Yuvraj's injury, Gambhir, who is himself recuperating from an injury, was named the vice-captain of the team.

- (A) by
(B) with
(C) after
(D) against
(E) alongside
(F) following

- ☐ A. BDE
☐ B. BCF
☐ C. FBA
☐ D. FAD
☐ E. BAF

Language Skills

Directions: Choose the word or pair of words that shows similar relationship as the given pair.

tenuous : membrane :: _____ : _____

- ☐ A. mucilaginous : cascade
☐ B. blustery : catacomb
☐ C. irksome : monotone
☐ D. itinerant : chateau
☐ E. blunt : expedition

Language Skills

Directions: Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

The Transport Commissioner's _____ idea of making attendance at a road safety awareness session mandatory for registration of a new vehicle has failed to take off in the district. MVD sources said it faced many _____, both infrastructurally and practically, in such a small district.

- ☐ A. lame jinx
☐ B. appreciable chaos
☐ C. presuming obstacles
☐ D. overconfident hurdle
☐ E. ambitious impediments

Language Skills

Directions: Choose the word or set of words for each blank that fits the meaning of the sentence.

Even though the environmentalists are doing their best to increase public awareness towards the greenhouse effect, too many people are not _____.

- ☐ A. relegating its effects
☐ B. concerned about it
☐ C. cornering pollution
☐ D. encouraging its drawbacks
☐ E. exploiting

Language Skills

Directions: Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

Jonathan wanted to _____ psychology as his major, but his parents wanted him to study engineering.

- ☐ A. cope
- ☐ B. attest
- ☐ C. choice
- ☐ D. enrich
- ☐ E. declare

Language Skills

Directions: Choose the word or pair of words that shows similar relationship as the given pair.

languid : vivacity :: _____ : _____

- ☐ A. tranquil : repose
- ☐ B. petulant : forbearance
- ☐ C. outlandish : oddity
- ☐ D. congruous : coherence
- ☐ E. inarticulate : blemish

Language Skills

Directions: Choose the word or pair of words that shows similar relationship as the given pair.

ameliorate : improve :: _____ : _____

- ☐ A. apposite : irrelevant
- ☐ B. fortunate : catastrophic
- ☐ C. appurtenant : inordinate
- ☐ D. cogent : compelling
- ☐ E. direct : convoluted

Language Skills

Passage

William Parker, a researcher at Duke University Medical Centre, said, 'Maybe it's time to correct the textbooks'. This observation referred to the English biologist Charles Darwin's thoughts about the human appendix as vestigial. Vestigial organs are those structures that do not have any apparent function and seem to be residual parts inherited from an ancestor. According to Darwin, the human appendix, which is a tube-like structure located at the juncture of the large intestine and the small intestine, no longer has any purpose and is just an evolutionary legacy. However, the best practices in research strive not only to explore the frontiers of knowledge, but also to challenge earlier observations.

Darwin had hypothesised that the appendix, which had been identified only in humans and other great apes at that time, was just a leftover part of the earlier form of caecum—a section of the gut containing bacteria that broke down plant tissue. The caecum later shrank with the change in diet of the distant ancestors of these animals from leaves to fruits, and the appendix is just one of its folds with no function.

But scientists have challenged Darwin's hypothesis about the appendix. By using modern methods of evolutionary biology, they have been able to establish that the appendix has evolved at least twice and has been around much longer than can be concluded from Darwin's ideas about it. Moreover, it has been discovered that the appendix is quite prevalent in nature. It has also come to light that several living species such as lemurs and rodents still have an appendix attached to their well-sized caecum. 'Darwin simply did not have access to the information we have,' explained Parker. He, along with his research team, suggested that the appendix has an immunological function. Its lymphatic tissue facilitates growth of beneficial bacteria. When there is a gut infection, the beneficial bacteria in the gut are depleted. The appendix permits them to be restored. Once the immune system overcomes the infection, the beneficial bacteria emerge from the appendix to recolonise the gut.

Further, to declare an organ vestigial just because no apparent function has been observed would not be scientifically correct; it does not prove that none exists. It is true that, due to certain illnesses to the human body, the appendix can be surgically removed with no evident harm to the patient. But this does not imply that the organ was functionless. It is possible that other organs assumed its functions.

Despite all arguments against allocating a vestigial nature to the appendix, scientists have wondered why an organ with such function is not universal, and this mystery remains to be unravelled. But this is what science is about—an incessant exploration of trails of new paths.

Scientists, after the new revelations of the role of the appendix in the human body, often refer to this organ as a 'safe house'. Which of the following quotations from the passage most directly explains the meaning of that phrase?

- ☐ A. Its lymphatic tissue facilitates growth of beneficial bacteria.
- ☐ B. The beneficial bacteria emerge from the appendix to recolonise the gut.
- ☐ C. When there is a gut infection, the beneficial bacteria in the gut are depleted.
- ☐ D. He, along with his research team, suggested that the appendix has an immunological function.
- ☐ E. Several living species such as lemurs and rodents still have an appendix attached to their well sized caecum.

Language Skills

Passage

William Parker, a researcher at Duke University Medical Centre, said, 'Maybe it's time to correct the textbooks'. This observation referred to the English biologist Charles Darwin's thoughts about the human appendix as vestigial. Vestigial organs are those structures that do not have any apparent function and seem to be residual parts inherited from an ancestor. According to Darwin, the human appendix, which is a tube-like structure located at the juncture of the large intestine and the small intestine, no longer has any purpose and is just an evolutionary legacy. However, the best practices in research strive not only to explore the frontiers of knowledge, but also to challenge earlier observations.

Darwin had hypothesised that the appendix, which had been identified only in humans and other great apes at that time, was just a leftover part of the earlier form of caecum—a section of the gut containing bacteria that broke down plant tissue. The caecum later shrank with the change in diet of the distant ancestors of these animals from leaves to fruits, and the appendix is just one of its folds with no function.

But scientists have challenged Darwin's hypothesis about the appendix. By using modern methods of evolutionary biology, they have been able to establish that the appendix has evolved at least twice and has been around much longer than can be concluded from Darwin's ideas about it. Moreover, it has been discovered that the appendix is quite prevalent in nature. It has also come to light that several living species such as lemurs and rodents still have an appendix attached to their well-sized caecum. 'Darwin simply did not have access to the information we have,' explained Parker. He, along with his research team, suggested that the appendix has an immunological function. Its lymphatic tissue facilitates growth of beneficial bacteria. When there is a gut infection, the beneficial bacteria in the gut are depleted. The appendix permits them to be restored. Once the immune system overcomes the infection, the beneficial bacteria emerge from the appendix to recolonise the gut.

Further, to declare an organ vestigial just because no apparent function has been observed would not be scientifically correct, it does not prove that none exists. It is true that, due to certain illnesses to the human body, the appendix can be surgically removed with no evident harm to the patient. But this does not imply that the organ was functionless. It is possible that other organs assumed its functions.

Despite all arguments against allocating a vestigial nature to the appendix, scientists have wondered why an organ with such function is not universal, and this mystery remains to be unravelled. But this is what science is about—an incessant exploration of trails of new paths.

The central purpose of the passage is to

☐ A. discredit the evolutionary theory propounded by the English biologist Charles Darwin.

☐ B. put forward the new revelations made by scientists about vestigial organs in the human body.

☐ C. provide an argument that attempts to give a fresh perspective to the role of the appendix in the human body.

☐ D. explain how concrete proof has established the appendix as a vital and not a vestigial organ of the human body.

☐ E. discuss the different ways science not only explores the frontiers of knowledge but also challenges earlier observations.

Language Skills

Passage

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In the last paragraph of the passage, the author makes a statement about the nature of science primarily to

☐ A. inform the reader that science specifically explores new ideas to displace earlier ones.

☐ B. express the idea that scientific methods continuously strive to explore new challenges and observations.

☐ C. indicate that Darwins theory about the function of the appendix in the human body could be after all correct.

☐ D. convince the reader that Parker and his team had provided the correct hypothesis about the function of the appendix.

☐ E. create a doubt in the mind of the reader that both Darwin and Parker could be wrong about the role of the appendix in human body.

Language Skills

Passage

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Despite all arguments against allocating a vestigial nature to the appendix, scientists have wondered why an organ with such function is not universal, and this mystery remains to be unravelled. But this is what science is about—an incessant exploration of trails of new paths.

All of the following phrases in the passage support the observations made by Parker and his research team EXCEPT

☐ A. time to correct the textbooks

☐ B. challenge earlier observations

☐ C. other organs assumed its functions

☐ D. mystery remains to be unravelled

☐ E. the appendix is quite prevalent in nature

Language Skills

Passage

Exporting means the sale of an item produced, stored or processed in the supplying firm's home country in a foreign land. Some firms regard exporting as little more than a convenient way of increasing total sales; others see it as a crucial element of overall corporate strategy. 'Passive' exporting occurs when a firm receives orders from abroad without having canvassed them. 'Active' exporting, conversely, results from a strategic decision to establish proper systems for organising the export function and for procuring foreign sales. Exporting may be direct or indirect. With direct exporting, the exporter assumes full responsibility for the transfer of goods to foreign customers, customs clearance, local advertising and final sale of the goods. Indirect exporting uses intermediaries. Export merchants, for example, reside in the exporter's country, acting as principals in exports' transactions (that is, buying and selling on their own accounts). They are wholesalers who operate in foreign markets through their own salespeople, stockists and, perhaps, retail outlets. Exporters are relieved of administrative problems, documentation, shipping, internal transport and so on, and do not carry the risks of market failure. However, they lose control over the presentation of their products and foreign sales may fall because of poor foreign retailing.

Exporting is cheap and convenient to administer and carries no risk of failure of direct foreign investments. The revenues from foreign sales accrue entirely to the exporting company (rather than it having to repatriate profits from foreign subsidiaries), and the firm builds up a network of contacts of foreign agents, distributors, retail outlets, etc. Direct exporting provides total control over the selling process, prevents the need to share know-how with foreign partners and cuts out expensive intermediaries. Exporting can be highly profitable, although the development of an export facility can place severe strain on the business's resources.

The phrase 'strategic decisions' most nearly means:

- ☐ A. method
- ☐ B. instance
- ☐ C. good plan
- ☐ D. pilot study
- ☐ E. premeditated plan

Language Skills

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According to the passage, indirect exporting involves fewer problems; however, the major drawback lies in the fact that:

- ☐ A. internal transport makes it difficult.
- ☐ B. there can be a risk of market failure also.
- ☐ C. administrative problems can arise at times.
- ☐ D. dealing with intermediaries can be a painful process.
- ☐ E. the exporter has little control over poor presentation of their goods on foreign shores which might affect sales.

Language Skills

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The word 'accrue' most nearly means:

- ☐ A. waste
- ☐ B. lessen
- ☐ C. collect
- ☐ D. scatter
- ☐ E. dissipate

Language Skills

Passage

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What is the central idea of the passage?

- ☐ A. How sales are dependent on exporting.
- ☐ B. How business depends heavily on exporting.
- ☐ C. Exporting - its role, types, merits and demerits.
- ☐ D. The process of exporting and the types of exports.
- ☐ E. Export merchants act as catalysts in the exporting process.

Language Skills

Select the word or phrase that is nearly the opposite in meaning to the given word: *assuage*

- ☐ A. point
- ☐ B. add on
- ☐ C. aggravate
- ☐ D. ameliorate
- ☐ E. accentuate

Language Skills

Passage

The legendary Greek philosopher Aristotle remarked, 'Man is by nature a social animal; an individual who is unsocial naturally and not accidentally is either beneath our notice or more than human. Society is something that precedes the individual.' The essence of this statement could, arguably, be looked at as the base of human sociality. This same trait of being fundamentally social is emphatically associated with ants as well.

In fact, ants are essentially regarded as eusocial ; that is, their behaviour reflects the highest degree of social organisation . In simple terms, eusociality is said to be characterised by a cooperative social system wherein the reproductive ants produce offspring and the rest of the population raise those collectively.

The similarity between ants and humans entails, but is not limited to, the domain of sociality . It extends to displaying varied behavioural patterns and organisational skills. Just as humans are marked with different traits and expertise, ants too display a variety of skills and natural capabilities that define their roles and, based on that, the tasks an ant will perform to bring up and sustain a colony. A colony, in the ant world, refers to a physical structure in which ants dwell and carry on tasks in line with the defined social rules governing the ant world. For example, a highly intricate social system of the ant world is demarcated with the clear division of roles and tasks, depending on the species of ants. The four broad types of ants found commonly in large colonies are 'ergates' , or worker ants; 'dinergates' , or soldier ants; 'drones', or fertile males; and 'queens', or fertile females.

Not only this, ants also display an ability to work collectively, which is considered an indispensable characteristic for any organisational structure in humans. Due to this very capacity of ants to operate as an entity, colonies of these insects are well regarded as 'superorganisms' or communities of organisms that interact synergistically with each other. Just like humans, ants too have an impeccable communication system that empowers ants to act as a team in the most testing times like that of combating an attack by an intruder or that of planning an attack. Interestingly, ants are able to build a communication channel with the help of a type of chemical that covers their body.

Although there could be numerous other areas over which analogies between humans and ants can be drawn, the ones mentioned above are the blatant few that indicate the complex social structures displayed by the two species and their innate common impulse to protect and rebuild their societies as and when required.

In the first paragraph, which of the following does the author link most directly to the quotation from Aristotle?

☐ A. The tasks performed by ants on the basis of their respective roles.

☐ B. The social levels of ants and the significance of those social levels in the ant world.

☐ C. The sociocultural commonalities between the ant world and the human world.

☐ D. The elaboration of the elements of eusociality and teamwork in the ant world.

☐ E. The drawing of analogies between ants and humans based on their respective contrasting traits.

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Which of the following statements does the passage imply as the fundamental prerequisite of human sociality?

☐ A. Human groups share the responsibility of raising offspring collectively.

☐ B. Human society is essentially eusocial and displays innate organisational skills and social hierarchy.

☐ C. Human beings are naturally social and only rarely or accidentally unsocial.

☐ D. Human beings are not naturally social but acquire the social instincts eventually after coming into the world.

☐ E. Human beings have an innate sense to rebuild or protect the society whenever needed.

Language Skills

Passage

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The passage discusses each of the following as the elements of sociality in the ant world EXCEPT

☐ A. The highest degree of social organisation can be seen among ants through their behaviours.

☐ B. The role of each and every ant is demarcated with a clear division of responsibility.

☐ C. Ants have an intricate level-based social system in which some ants define the roles and responsibilities of others.

☐ D. Behavioural patterns and organisational skills vary from one ant to another.

☐ E. The ability to work as a team helps ants combat an enemy and plan an attack.

Language Skills

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According to the passage, which of the following traits of ants or ways of the ant world is most closely associated with ant colonies being referred to as superorganisms?

- ☐ A. Every ant has a unique role to play and responsibility to cater to in bringing up an offspring.
- ☐ B. Ants in a colony live in harmony and interact synergistically with one another.
- ☐ C. The social organisational skills of ants supersede those displayed by humans.
- ☐ D. In the ant world, the social level and structure neither determine nor are determined by the role of any individual ant.
- ☐ E. The ant world is characterised by a clear demarcation of combat skills to a chosen few.

Language Skills

Directions: Choose the word or set of words for each blank that fits the meaning of the sentence.

The kinds of professions that have emerged in modern times are very different and novel compared to the traditional occupations of the past and require _____ education and training.

- ☐ A. singular
- ☐ B. atypical
- ☐ C. specialised forms of
- ☐ D. different varieties of
- ☐ E. exceptional

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order to make the sentence correct. Mark (E) for no error.

The constellation Aquarius was associated with the rainy seasons by a large amount of ancient civilisations.

- ☐ A. associated
- ☐ B. rainy
- ☐ C. large
- ☐ D. amount
- ☐ E. No error

Language Skills

Directions: Choose the word or set of words for each blank that fits the meaning of the sentence.

The results of the nationwide survey regarding education reforms indicate that the general opinion of the stakeholders, including management, parents and children, _____ the need to introduce a student-centric approach based on the spirit of inquiry.

- ☐ A. have emphasised
- ☐ B. have been emphasising
- ☐ C. would have emphasised
- ☐ D. has emphasised
- ☐ E. are emphasising

Language Skills

Directions: Choose the set of prepositions whose meaning and sequence best fits the 3 given sentences.

1. The manager's eye lingered _____ the new recruit.
 2. He was looking _____ Tom for instructions.
 3. She shivered _____ fear.
- (A) on
(B) under
(C) to
(D) at
(E) in
(F) by

- ☐ A. ACE
- ☐ B. AEC
- ☐ C. CBA
- ☐ D. DAE
- ☐ E. FED

Language Skills

Directions: Choose the word or pair of words that shows similar relationship as the given pair.

emperor : throne :: _____ : _____

- ☐ A. vault : money
- ☐ B. lava : volcano
- ☐ C. lion : circus
- ☐ D. incumbent : office
- ☐ E. menu : restaurant

Language Skills

Directions: Choose the correct sequence of prepositions that best completes the three given sentences.

1. She parked the car and rushed _____ the store.
2. The wind uprooted a tree and caused it to fall _____ the window.
3. Students who stay _____ all night will fall asleep in class.

- (A) against
(B) in
(C) across
(D) by
(E) into
(F) up

- ☐ A. BCF
- ☐ B. BED
- ☐ C. EAF
- ☐ D. ECB
- ☐ E. FED

Language Skills

Directions: Rearrange the jumbled sentences to show the appropriate sequence.

- (A) No wonder companies everywhere have a stake in the health and fitness of their employees and are willing to spend considerable amounts for this purpose.
- (B) Our health is important to us, to our families and to our employers.
- (C) This is considered an important factor contributing to high productivity and quality work.
- (D) Japanese companies particularly excel in this and the more successful among them start off the day with a body bending and stretching session.

- ☐ A. DBAC
- ☐ B. ABDC
- ☐ C. CABD
- ☐ D. BADC
- ☐ E. BCDA

Language Skills

Directions: Rearrange the jumbled sentences to show the appropriate sequence.

- (A) William Shockley headed the team that developed the first transistor, so he is generally considered the lead inventor.
(B) Transistors are present in virtually anything that uses electronic circuits—from computers and cars to phones and satellites.
(C) The transistor can be described in simple terms as an electronic switch and amplifier.
(D) It has, however, often been alleged that John Bardeen and Walter Brattain did most of the work that went into the development.
(E) The invention of the transistor by Shockley, Bardeen and Brattain quite possibly changed the world to a greater extent than any other of the twentieth century.

- ☐ A. ADEBC
☐ B. CEADB
☐ C. ADCEB
☐ D. CEBAD
☐ E. AECBD

Language Skills

Directions: Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

The robber _____ the location of the stolen money after being questioned for several hours.

- ☐ A. emerged
☐ B. expected
☐ C. concealed
☐ D. disclosed
☐ E. threatened

Language Skills

Directions: Choose the word or set of words for each blank that fits the meaning of the sentence.

Though car seat belts replaced harnesses worn by car drivers, the three-point seat belt became popular only in 1958 after the public _____ the idea of safety belts. Subsequently, the sales of the seat belts _____ because since 1966 it has become mandatory to wear car seat belts in America.

- ☐ A. caught up on... ..nosedived
☐ B. caught sight of... ..stabilised
☐ C. caught on to... ..skyrocketed
☐ D. caught light of... ..boomeranged
☐ E. caught up with... ..stopped

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order to make the sentence correct. Mark E for no error.

I have gone to Paris, but I have neither visited the Eiffel Tower nor the Louvre museum.

- ☐ A. have gone
☐ B. but
☐ C. have neither
☐ D. nor
☐ E. No error

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed for the sentence to be correct. Mark (E) for no error.

But this time, the party is at a nadir of its influence in national politics.

- ☐ A. the
☐ B. a
☐ C. its
☐ D. in
☐ E. No error

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order to make the sentence correct. Mark E for no error.

The series of far-reaching reforms that was specially launched in Iran in 1963 by the Shah, Mohammad Reza Pahlavi, to strengthen those classes that supported the traditional system were called the White Revolution.

- ☐ A. series
- ☐ B. reforms
- ☐ C. was
- ☐ D. were
- ☐ E. No error

Language Skills

Directions: In the given question, the sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order to make the sentence correct. Mark E for no error.

We've already paid for our journey, so we need only take some pocket money with us.

- ☐ A. paid for
- ☐ B. we need
- ☐ C. only take
- ☐ D. with us
- ☐ E. No error

Compiled by Prishthi

Language Skills

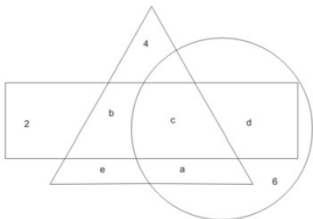
Directions: Choose the word or pair of words that best completes the relationship to the given pair.

epistle : letter :: _____ : _____

- ☐ A. elegy : depressed
- ☐ B. epithet : depiction
- ☐ C. epitaph : true
- ☐ D. lyrics : writer
- ☐ E. ode : poem

Logic Reasoning

Directions: Answer the question based on the following Venn diagram. The overlapped area suggests the product of the numbers of each figure in the diagram.



What is the value of $\frac{5c}{2a}$?

- ☐ A. 1
- ☐ B. 3
- ☐ C. 5
- ☐ D. 7
- ☐ E. Cannot be determined

Logical Reasoning

Directions: Given statement(s) is/are followed by courses of action. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. on the basis of the information given in the statement(s). Assuming everything in the statement(s) to be true, you have to decide which of the suggested courses of action should logically be pursued.

Statements: A popular mobile phone manufacturer XYZ has plans to introduce a new model that comes packed with a sleek design, stunning displays, faster speeds and better performance. Despite the higher selling price, it is expected that the new model will be a huge hit among the loyal fans of the brand. However, in this fast-paced technology industry, XYZ has gotten wind of news that their rival brand is also launching their new product with similar features around the same time.

Courses of Action:

- I. XYZ should not launch the new model, since the competitor is also launching the rival product and this may impact the sales.
- II. XYZ should go ahead with the launch of the new model, despite competition, as the technology industry faces the risk of softwares becoming outdated and the company needs to try at least to recoup the development costs of the product.
- III. XYZ should do its demographics and market research to determine whether it would be wise to launch the new model only in selected regions in order to cut its losses.

- ☐ A. Only I follows.
- ☐ B. Only II follows.
- ☐ C. Only III follows.
- ☐ D. Only I and II follow.
- ☐ E. Only II and III follow.

Logical Reasoning

Directions: In the question given, the statement(s) is/are followed by a few arguments. Decide which option(s) of the arguments support(s) the statement(s).

Statement: The government of every country needs to allocate a fixed minimum budget for research and development in astronomy and space sciences in a bid to develop the interest of the younger generation in Astro sciences. Should the government of Country D do so?

Arguments:

- I. No. Country D has no public funds available over and above what is required to meet the basic needs of its population, and there is no reason to believe that research in Astro sciences is among those basic needs.
- II. No. Research and development in astronomy and space sciences require massive amounts of public funds and would not offer as many employment opportunities as some investments of other kinds.
- III. No. Unlike proposals for public spending directed towards meeting basic needs, proposals for public spending on research in Astro sciences have gained little or no support in Country D, which is a democracy.

- ☐ A. Only argument I is strong.
- ☐ B. Only argument II is strong.
- ☐ C. Only arguments I and II are strong.
- ☐ D. Only arguments I and III are strong.
- ☐ E. Only arguments II and III are strong.

Logical Reasoning

Directions: Given statement(s) is/are followed by a number of conclusions. Assume the given statement(s) to be true, even if they seem to be at variance from the commonly known facts. Read all the conclusions and decide which one logically follows from the given statement(s).

Statements: To be able to dance '*en pointe*' or on the tips of the toes is an ambition that almost all ballet dancers desire to harness. Perfection comes with years of practice, adequate bone strength, which does not develop until adolescence, and flexibility. It is indeed hard work and requires right body posture, balance and a strong knowledge of ballet techniques. Some ballet dancers, however, can never dance '*en pointe*' because of the bone structure of their foot.

Conclusions:

- I. Dancers must seek proper training before trying to attempt this form of ballet.
- II. Pre-adolescent children should not be made to do '*en pointe*' dancing since their bones may not be strong.
- III. Ballet dancers who do not have an ideal bone structure to dance '*en pointe*' should seek surgical help to achieve their life goals.

- ☐ A. Only conclusion I follows.
- ☐ B. Only conclusion II follows.
- ☐ C. Only conclusion III follows.
- ☐ D. Only conclusions I and II follow.
- ☐ E. Only conclusions II and III follow.

Logical Reasoning

Directions: Given statement(s) is/are followed by a question and a few arguments. Determine which of the argument(s) logically support(s) the stated answer to the question.

Statement: Company C has recently installed a biometric system in their office as they want to maintain an accurate record of the exact time when their employees enter and leave the office. Is Company C correct to implement a biometric system for this purpose?

Arguments:

- I. Yes. The employees will be more cautious about the time they arrive and leave the office, and will be punctual.
- II. Yes. The biometric system will ensure that the employees take fewer breaks between work, thereby increasing their efficiency.
- III. Yes. The company will save the time and effort that goes into manually recording the attendance of employees.

- ☐ A. Only Argument I is strong.
- ☐ B. Only Argument II is strong.
- ☐ C. Only Arguments I and II are strong.
- ☐ D. Only Arguments I and III are strong.
- ☐ E. Only Arguments II and III are strong.

Logical Reasoning

Mr Dixon is the head of service engineers at an organisation. Mr Dixon is in a hurry to meet a client at their location to solve some machinery issues. At the same time, there is a problem with a critical piece of machinery at Mr Dixon's own factory and the production manager is requesting his presence to solve it immediately.

Which of the following would be the best decision to make in this situation?

☐

A. Visit the client and then come back to address the issue at the factory.

☐

B. Inform the production manager that he will be available after some time.

☐

C. Send a senior service engineer to his factory and personally visit the client location.

☐

D. Solve the issue at his factory first and then visit the client keeping them in the dark about the cause of delay.

☐

E. Send a senior service engineer to the client location and personally attend the issue at his own company.

Logical Reasoning

Student presentation: Most countries use the Celsius temperature scale; a few use the Fahrenheit scale. People often emphasise the virtues of the conventions they follow; a person in Japan might call the Celsius scale "logical" because water freezes at zero degrees and boils at a hundred degrees. A person in the US might say the Fahrenheit scale is "better" because one degree Fahrenheit is smaller than one degree Celsius—which allows temperatures to be more precisely stated without using decimal points. It is ultimately just a matter of being accustomed to a convention.

Which of the following expresses the main point of the passage?

☐

A. In terms of units of measurement, no single convention can be proved to be clearly better than any others.

☐

B. The two major temperature scales each have small advantages, and their use is a matter of adopted convention.

☐

C. It is possible for people in general to mistake the fact that they are used to something for the idea that it is better.

☐

D. In terms of units of measurement, different conventions give rise to different ideas about what is logical or useful.

☐

E. Convention is a more important consideration than logic or precision in the matter of the use of temperature scales.

Logical Reasoning

Directions: Some given facts are followed by a number of statements. Assume that all the facts are true and select the statement(s) that can be logically concluded based on them.

Fact 1: At a quick service restaurant, a combo meal costs \$10; it includes two cheeseburgers and one beverage.

Fact 2: The combo can be customised for two more beverages, instead of one of the cheeseburgers, for the same price.

Fact 3: A cheeseburger outside of the combo costs \$5 dollars, which is \$1 more than its price in the combo.

If the statements above are facts, which, if any, of the statement(s) below (I, II, or III) must also be (a) fact(s)?

I. The cost of each cheeseburger is double that of each beverage in the combo.

II. The combo would still cost the same if \$3 were charged for each cheeseburger and a customer wanted to include a \$2 pizza too.

III. The customers would have to pay \$4 more if the combo included one more beverage at the same rate.

☐

A. I only

☐

B. II only

☐

C. I and II only

☐

D. I, II & III

☐

E. II & III only

Logical Reasoning

Directions: A computer program converts an input into numeric codes in five steps as shown for the five example inputs below. Study the pattern in the table given below and then answer the questions that follow.

Input	Sachin Tendulkar	Martina Navratilova	Andre Agassi	Ronaldo	Mary Kom
St 1	5	8	5	3	2
St 2	30	72	30	12	6
St 3	150	576	150	36	12
St 4	115	496	115	21	4
St 5	108	477	108	18	0

If the output at St 1 is 11, then which of the following is an output at any step of the program?

☐

A. 1452

☐

B. 1542

☐

C. 2145

☐

D. 2154

☐

E. 4152

Logical Reasoning

Directions: A computer program converts an input into numeric codes in five steps as shown for the five example inputs below. Study the pattern in the table given below and then answer the questions that follow.

Input	Sachin Tendulkar	Martina Navratilova	Andre Agassi	Ronaldo	Mary Kom
St 1	5	8	5	3	2
St 2	30	72	30	12	6
St 3	150	576	150	36	12
St 4	115	496	115	21	4
St 5	108	477	108	18	0

If the input to the program is Maradona, then what would be the output at St 5?

☐

A. 41

☐

B. 45

☐

C. 54

☐

D. 57

☐

E. 73

Logical Reasoning

Directions: A computer program converts an input into numeric codes in five steps as shown for the five example inputs below. Study the pattern in the table given below and then answer the questions that follow.

Input	Sachin Tendulkar	Martina Navratilova	Andre Agassi	Ronaldo	Mary Kom
St 1	5	8	5	3	2
St 2	30	72	30	12	6
St 3	150	576	150	36	12
St 4	115	496	115	21	4
St 5	108	477	108	18	0

If the input is Venkatapathy Raju, then which of the following is not an output at any step?

- ☐ A. 42
- ☐ B. 198
- ☐ C. 204
- ☐ D. 244
- ☐ E. 252

Logical Reasoning

Directions: A computer program converts an input into numeric codes in five steps as shown for the five example inputs below. Study the pattern in the table given below and then answer the questions that follow.

Input	Sachin Tendulkar	Martina Navratilova	Andre Agassi	Ronaldo	Mary Kom
St 1	5	8	5	3	2
St 2	30	72	30	12	6
St 3	150	576	150	36	12
St 4	115	496	115	21	4
St 5	108	477	108	18	0

If the output at St 1 is 9, then what will be the output at St 4?

- ☐ A. 354
- ☐ B. 412
- ☐ C. 543
- ☐ D. 653
- ☐ E. 711

Logical Reasoning

Answering a teacher's question, a proponent of the flipped classroom said that the concept would, more than ever before, place an emphasis on customised learning that caters to individual learning needs, thereby making the teacher's role more prominent. While the flipped classroom represents a distinct shift from the traditional method of content delivery—where the teacher bombards students with information—the new teaching format encourages a more engaging and interactive mode of learning.

Which of the following can be inferred from the passage?

- ☐ A. Students learn best when they are able to interact with one another.
- ☐ B. Nowadays, e-learning is the most preferred mode of learning due to its flexibility.
- ☐ C. It is important to provide face-to-face interaction for the practical elements of a subject.
- ☐ D. Teachers have expressed concerns about the role they would play in a flipped classroom.
- ☐ E. Teachers overwhelm students with information and show little regard for learning outcomes.

Logical Reasoning

The CEO of Evergreen Supermarkets has urged his executives to establish their stores in upcoming residential apartments that have potential occupancy of more than 2,000 residents.

Which of the following, if true, most severely strengthens the argument?

- ☐ A. The people moving into the residential apartments are rich.
- ☐ B. One particular building company will be building many of these types of residential apartments.
- ☐ C. If less than 2,000 residents move into the residential apartments, the supermarkets will yield less profit.
- ☐ D. The Evergreen Supermarkets executives are not working hard to establish their stores in the large upcoming residential apartments.
- ☐ E. Two of the three supermarkets which have already established their stores in similar sized apartment blocks have just declared good results for the year.

Logical Reasoning

Professor: Teachers of a spiritual discipline called Zen use *koans* as a means to help students realise certain truths. *Koans* are often questions that have no correct answer, sentences that appear paradoxical, or statements that seem trivially true. *Koans* are meant to be contemplated but not with the intent to correctly answer or explain them in rational terms. It is easy to answer the *koan* "What is the sound of one hand clapping?" by saying "no sound results" or "one hand cannot clap"; that, of course, is not the point of the *koan*.

The passage above assumes that

- ☐ A. rational thinking is one means by which certain truths may be realised.
- ☐ B. contemplation with no particular intent cannot help one answer any questions.
- ☐ C. riddles intentionally posed as valid questions require no answers or explanations.
- ☐ D. a rational answer to a question intended as a riddle cannot be a solution to the riddle.
- ☐ E. questions that appear to have no correct answer might instead be merely difficult to answer.

Logical Reasoning

Directions: A word arrangement computer program, when given an input line of words, rearranges them following a particular pattern as shown for the example input line below.

Input	race	win	angle	arc	fake
Step 1	arc	race	win	angle	fake
Step 2	arc	angle	race	win	fake
Step 3	arc	angle	fake	race	win

Using the same pattern, answer the questions alongside using the new input line of words given below.

Input	bike	whale	bangle	shark	ace
-------	------	-------	--------	-------	-----

If the new input were to be, "bike breath groan shark yonder", then what will be the final output of the program?

- ☐ A. bike breath groan shark yonder
- ☐ B. breath groan shark yonder bike
- ☐ C. groan bike breath shark yonder
- ☐ D. yonder bike breath shark groan
- ☐ E. breath bike yonder shark groan

Logical Reasoning

Directions: A word arrangement computer program, when given an input line of words, rearranges them following a particular pattern as shown for the example input line below.

Input	race	win	angle	arc	fake
Step 1	arc	race	win	angle	fake
Step 2	arc	angle	race	win	fake
Step 3	arc	angle	fake	race	win

Using the same pattern, answer the questions alongside using the new input line of words given below.

Input	bike	whale	bangle	shark	ace
-------	------	-------	--------	-------	-----

If the new input were to be, "bike army bastion shark race", in how many steps will the output be reached?

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

Logical Reasoning

Directions: A word arrangement computer program, when given an input line of words, rearranges them following a particular pattern as shown for the example input line below.

Input	race	win	angle	arc	fake
Step 1	arc	race	win	angle	fake
Step 2	arc	angle	race	win	fake
Step 3	arc	angle	fake	race	win

Using the same pattern, answer the questions alongside using the new input line of words given below.

Input	bike	whale	bangle	shark	ace
-------	------	-------	--------	-------	-----

In how many steps will the output be reached for the new input?

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

Logical Reasoning

Directions: A word arrangement computer program, when given an input line of words, rearranges them following a particular pattern as shown for the example input line below.

Input	race	win	angle	arc	fake
Step 1	arc	race	win	angle	fake
Step 2	arc	angle	race	win	fake
Step 3	arc	angle	fake	race	win

Using the same pattern, answer the questions alongside using the new input line of words given below.

Input	bike	whale	bangle	shark	ace
-------	------	-------	--------	-------	-----

What will be the output at Step 3 for the new input?

- ☐ A. ace bangle bike shark whale
- ☐ B. bangle ace bike shark whale
- ☐ C. ace bangle bike whale shark
- ☐ D. ace bike bangle shark whale
- ☐ E. ace bike shark bangle whale

Logical Reasoning

Directions: Read the passage below. Answer the questions based on the information in the passage.

- I. Pictures of five animals(em dash)deer, elephant, fox, lion and zebra—are drawn, one each on all the four faces and its base.
- II. Pictures of a zebra, a lion, an elephant, a fox and a deer are drawn, one each on all the four faces and its base.
- III. Each picture is painted in a different colour—blue, grey, black, yellow and brown.
- IV. The lion, which is in brown colour, is not on the opposite face of the black coloured picture.
- V. The deer is on the adjacent face of the blue coloured elephant.
- VI. The zebra, which is not in grey colour, is not opposite to the yellow coloured animal.
- VII. The grey coloured picture is not on any of the faces.

Which of the following animals are on the two adjacent faces of the lion?

- ☐ A. deer - elephant
- ☐ B. zebra - deer
- ☐ C. zebra - elephant
- ☐ D. zebra - fox
- ☐ E. cannot be determined

Logical Reasoning

Directions: Read the passage below. Answer the questions based on the information in the passage.

- I. Pictures of five animals(em dash)deer, elephant, fox, lion and zebra—are drawn, one each on all the four faces and its base.
- II. Pictures of a zebra, a lion, an elephant, a fox and a deer are drawn, one each on all the four faces and its base.
- III. Each picture is painted in a different colour—blue, grey, black, yellow and brown.
- IV. The lion, which is in brown colour, is not on the opposite face of the black coloured picture.
- V. The deer is on the adjacent face of the blue coloured elephant.
- VI. The zebra, which is not in grey colour, is not opposite to the yellow coloured animal.
- VII. The grey coloured picture is not on any of the faces.

Which of the following statements is not true?

- ☐ A. The deer is blue.
- ☐ B. The zebra is black.
- ☐ C. The fox is not seen from any of the faces.
- ☐ D. Yellow and grey colours are not opposite to each other.
- ☐ E. None of these

Logical Reasoning

Directions: Read the passage below. Answer the questions based on the information in the passage.

- I. Pictures of five animals—deer, elephant, fox, lion and zebra—are drawn, one each on all the four faces and its base.
II. Pictures of a zebra, a lion, an elephant, a fox and a deer are drawn, one each on all the four faces and its base.
III. Each picture is painted in a different colour—blue, grey, black, yellow and brown.
IV. The lion, which is in brown colour, is not on the opposite face of the black coloured picture.
V. The deer is on the adjacent face of the blue coloured elephant.
VI. The zebra, which is not in grey colour, is not opposite to the yellow coloured animal.
VII. The grey coloured picture is not on any of the faces.

If the location of the animal in grey is interchanged with that of the one in brown and the location of the animal in yellow is interchanged with that of the one in black, which combination of animals will be on the faces adjacent to the deer?

- ☐ A. elephant - zebra
- ☐ B. fox - elephant
- ☐ C. fox - zebra
- ☐ D. lion - elephant
- ☐ E. zebra - lion

Logical Reasoning

Directions: Read the passage below. Answer the questions based on the information in the passage.

- I. Pictures of five animals(em dash)deer, elephant, fox, lion and zebra—are drawn, one each on all the four faces and its base.
II. Pictures of a zebra, a lion, an elephant, a fox and a deer are drawn, one each on all the four faces and its base.
III. Each picture is painted in a different colour—blue, grey, black, yellow and brown.
IV. The lion, which is in brown colour, is not on the opposite face of the black coloured picture.
V. The deer is on the adjacent face of the blue coloured elephant.
VI. The zebra, which is not in grey colour, is not opposite to the yellow coloured animal.
VII. The grey coloured picture is not on any of the faces.

Which of these is the colour combination of the pictures on opposite faces?

- ☐ A. brown - black
- ☐ B. grey - black
- ☐ C. yellow - black
- ☐ D. yellow - brown
- ☐ E. cannot be determined

Logical Reasoning

Directions: Given statement(s) is/are followed by a number of conclusions. Assume the given statement(s) to be true, even if they seem to be at variance from the commonly known facts. Read all the conclusions and decide which one(s) logically follow(s) from the given statement(s).

Statement:

The new galaxy that was accidentally discovered by the Hubble Space Telescope is estimated to be $\frac{1}{30}$ of the size of the Milky Way. Its age, estimated at 13 billion years old, is making it the astronomical equivalent of a living fossil.

Conclusions:

- I. Astronomical objects are discovered accidentally.
II. Astronomical objects can be categorised as fossils.
III. The Hubble Space Telescope is the first space telescope on a mission to photograph the universe.

- ☐ A. Only Conclusion I follows.
- ☐ B. Only Conclusion II follows.
- ☐ C. Only Conclusion III follows.
- ☐ D. Both Conclusions I and II follow.
- ☐ E. Both Conclusions II and III follow.

Logical Reasoning

Direction: Given statement(s) is/are followed by a question and a few arguments. Determine which of the argument(s) logically support(s) the stated answer to the question.

Statements: Research findings from a reputed organisation found that participants learn five times more effectively through online courses than in traditional instructor-led courses. This happens because participants are able to learn according to their own time and pace of learning. Should we do away with the traditional instructor-led courses for at least some types of subjects?

Arguments:

- I. Yes. Online courses allow students to enroll themselves from remote locations and they make learning accessible to all.
II. Yes. In online courses the multimedia content is engaging and interactive and keeps the student glued to the content.
III. Yes. In an instructor-led course, the instructors keep the students motivated and help them discuss with peers.

- ☐ A. Only argument I is strong.
- ☐ B. Only argument II is strong.
- ☐ C. Only argument III is strong.
- ☐ D. Only arguments I and II are strong.
- ☐ E. Only arguments I and III are strong.

Logical Reasoning

Directions: Given statement(s) is/are followed by a number of assumptions. An assumption is something supposed or taken for granted. Read all the assumptions and decide which one is implicit in the given statement(s).

Statements: In City X, home makeover is gaining a lot of importance in beautifying the spaces of homes artistically. Home décor includes furnishing and displaying art and curios. Wall painting, alternatively, is said to add a more aesthetic and pleasing value to the home. Some may even say that wall painting is indispensable. It would be a reasonable guess, though, that that in the most recent year, the percentage of home makeovers that are based on home décor must be at least 35% greater than the percentage ten years ago, while probably fewer than 20% of the home makeovers in City X involve repainting walls. Throughout this time, all home makeovers in City X have been based on home décor or repainting walls.

Assumptions:

- I. A decade ago, the percentage of home makeovers in City X that were based on home décor was less than the percentage of home makeovers in City X that were based on home décor in the most recent year
- II. Every decade, different styles, concepts and aesthetic functionalities can be seen in terms of redecorating a home in City X.
- III. At least some home makeovers in City X that are based on home décor do not also involve repainting walls.

- ☐ A. Only assumption I follows.
- ☐ B. Only assumption II follows.
- ☐ C. Only assumption III follows.
- ☐ D. Only assumptions I and III follow.
- ☐ E. Only assumptions II and III follow.

Logical Reasoning

Out of 140 mechanics, 10% can repair all three devices—Air Conditioner (AC), Television (TV) and Refrigerator. The number of mechanics who can repair exactly two of the three electronic devices is 50, the number of mechanics who can repair ONLY TVs is 22 and the number of mechanics who can repair ONLY ACs is equal to the number of mechanics who can repair ONLY Refrigerators. If each of these mechanics can repair at least one of the three electronic devices, then how many mechanics can repair ONLY ACs?

- ☐ A. 22
- ☐ B. 24
- ☐ C. 26
- ☐ D. 27
- ☐ E. 29

Compiled by Prishth.in

Logical Reasoning

An automobile manufacturing company wants to start manufacturing electric vehicles (EVs). As a first step, the management of the company has successfully tested the EVs at a small scale in the local market. Now, the company wants to conduct a state-wise national customer survey. Based on the survey, the management will decide on the scale of manufacturing and launching of EVs. What information should the survey collect from the respondents to help the company decide whether to proceed with large-scale manufacturing of EVs?

- ☐ A. The survey should ascertain the minimum features that customers require for EVs and their overall expectations regarding any new EV launched in the market.
- ☐ B. The survey should ascertain what factors most often dissuade owners of EVs from buying another EV and whether they expect to find those factors in all EVs.
- ☐ C. The survey should, to the extent possible, ascertain customers' beliefs about the comparative manufacturing cost of EVs offered by competitors and whether the customers think EVs are usually affordable.
- ☐ D. The survey should ascertain the extent to which customers are aware of other people's preferences for EVs and the extent to which the customers are aware of the designs of EVs manufactured by competitors.
- ☐ E. The survey should ascertain what customers believe to be the maintenance and operating expenses of different existing EVs and the expectation of customers regarding such expenses on new EVs.

Logical Reasoning

The idea that when cooled, hot water can sometimes freeze faster than cold water has generated controversy ever since a schoolchild suggested in 1963 that ice cream freezes more quickly if the liquid mixture is first heated. It turned out that the first purported observations of this apparently impossible phenomenon date back two millennia. The phenomenon is observed in certain situations such as when conditions allow much of the water to evaporate and if the water is cooled from the bottom rather than uniformly.

The passage above assumes that

- ☐ A. it is possible for a phenomenon to be scientifically proven for the first time by reference to millennia-old records.
- ☐ B. before 1963, people probably often cooled warm or room-temperature liquids before attempting to freeze them.
- ☐ C. it is possible for a phenomenon to be discovered, rejected by scientists as false, deleted from historical records and later re-discovered without acknowledgement of the earlier discovery.
- ☐ D. most people are aware of the general fact that when cooled, cold water typically freezes faster than warm water.
- ☐ E. most people believe that warm water in an ice tray cooled in a freezer can freeze more quickly than cold water.

Logical Reasoning

Typically, milk consumption is elastic only to some extent. A consumer-behaviour survey shows that a price rise of 5% has a corresponding dip in milk sales. However, a price rise over 5% does not have a corresponding dip—in fact, a 20% price hike leads to only a 6% dip in sales.

Which of the following is implied in the above statement?

- ☐ A. All products behave in the same fashion as milk.
- ☐ B. Milk consumption cannot be controlled with the help of price rises alone.
- ☐ C. People cannot reduce milk consumption beyond a point as it will affect their health adversely.
- ☐ D. Milk co-operative societies have full control over the milk market so it has become a seller's market.
- ☐ E. Government is not worried about the malnutrition of children so it does not create any policy for milk supply.

Logical Reasoning

Just as there are more right-handed than left-handed people, there are more right-eyed people than left-eyed people. Being right-eyed means, very roughly, that vision in the right eye is a little more accurate than in the left eye. From a strictly logical perspective, therefore, it makes more sense to drive on the left side of the road even though most countries drive on the right. This is partly because in countries where people drive on the left, the right eye is more responsible for awareness of oncoming traffic.

Which of the following, if true, would most strengthen this argument?

- ☐ A. In all countries, among people who are right-eyed, more people are right-handed than left-handedand vice versa.
- ☐ B. In countries that drive on the left, people move their right hand in a rotatory way to a greater extent while making a right turn.
- ☐ C. In countries where people drive on the right, they use their right eye more than their left eye to look at the passenger-side rear-view mirror.
- ☐ D. In manual-transmission cars with the steering wheel to the left, the right eye sees a smaller portion of the steering wheel than does the left eye.
- ☐ E. In manual-transmission cars with the steering wheel to the right, the left hand leaves the steering wheel, while the typically more-dominant right hand is always on the wheel.

Logical Reasoning

Directions: A statement is followed by a number of suggested courses of action. A course of action is a step or administrative decision that needs to be taken for improvement, follow-up or further action, in regard to a problem, policy, etc. On the basis of the information given in the statement, and assuming everything in the statement to be true, decide which of the suggested courses of action should logically be pursued.

Statement: An important project is in danger of missing its due end date and you feel that this could be down to a lack of diligence among some team members. You have the option of forming a new team, though after looking at the project's schedule, you have dismissed this as an option.

Courses of Action:

- I. You should talk to each member of the team and work out whether there is anything preventing them, or their colleagues, from doing the work.
- II. You should just cross your fingers and remain optimistic that everything will go as planned.
- III. You should talk to Human Resources and ask a member of staff there to talk to the people in your team.

- ☐ A. Only I follows.
- ☐ B. Only II follows.
- ☐ C. Both I & III follow.
- ☐ D. Both II & III follow.
- ☐ E. None follow.

Logical Reasoning

Directions: In this question, some statements are given followed by some conclusions. Assume the given statements are true, even if they seem to be at variance from commonly known facts. Choose the conclusions that logically follow from the given statements.

Statements:

- (1) All lions are peacocks.
- (2) All peacocks are rats.
- (3) No rat is an animal.

Conclusions:

- (1) All rats are peacocks.
- (2) All lions are rats.
- (3) Some peacocks are animals.

- ☐ A. Only (1)
- ☐ B. Only (2)
- ☐ C. Only (3)
- ☐ D. Only (1) and (2)
- ☐ E. Only (2) and (3)

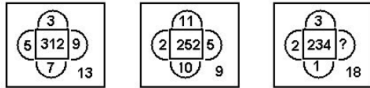
Logical Reasoning

Certain candles are placed sequentially on Sonia's birthday cake. The candle which is at the 7th position from the red candle on Sonia's birthday cake is actually the 12th position from the left end. The red candle has an odd number of candles on its right and a candle less on its left. If Sonia's age is equivalent to the number of candles on the cake, then what is Sonia's age?

- ☐ A. 31
- ☐ B. 33
- ☐ C. 36
- ☐ D. 38
- ☐ E. 42

Logical Reasoning

Which of the following is a reasonable choice for the value of the question mark?



- ☐ A. 9
- ☐ B. 7
- ☐ C. 5
- ☐ D. 3
- ☐ E. 0

Logical Reasoning

It is essential for a good presentation to engage the attention of the audience throughout the duration of the presentation. An ideal presentation begins with an inspirational quote or a compelling question to captivate the audience's attention and spark their interest in the topic. As the presentation proceeds, other elements such as real-life examples, visually appealing graphics, data and statistics help to keep the audience engaged.

Which of the following statements is most strongly supported by the information given above?

- ☐ A. Audiences tend to have a short attention span during presentations.
- ☐ B. Interesting visual and auditory elements in a presentation increase the chances of keeping the audience engaged.
- ☐ C. Humour is the only aspect of a presentation that can keep the audience engrossed.
- ☐ D. To maintain the audience's attention, it is necessary that the presentation be kept very short.
- ☐ E. The important points of a presentation should be presented in the beginning, when the attention of the audience is focused and maximum.