

CSAT Test-2 Answers & Explanation

Paragraph: DIRECTIONS for Questions 1 to 4 (4 items)- Read the passage given below and answer the questions that follow: **PASSAGE 1-** The Law Commission, understandably in its 156th report, followed the constitution bench judgment and favoured retention of Section 309. I had occasion to appear before the constitution bench. Unfortunately, I failed to persuade the bench that it has been universally acknowledged that a provision to punish attempt to commit suicide is irrational and Section 309 is unconstitutional.

Wisdom dawns though belatedly. The Law Commission in its 210th report recommended decriminalisation of Section 309. That's good news. It's fervently hoped that the Law Commission's recommendation is accepted. When I was arguing the case, I got the impression that the silent premise of the mindset and predilection of the constitution bench was that suicide is morally wrong and unethical. It failed to appreciate that if Section 309 is invoked, persons of integrity who fast unto death for laudable objectives would be criminals punishable under Section 309. Should we tolerate such a bizarre situation? Surely a rational person in good physical and mental state has the right to choose whether he should continue his journey on this planet or escape the treadmill to which the person is chained and fulfil his desire to meet his Maker. The crux of the matter is that the choice is his or her personal decision which has no baneful consequences in society and the state has no legitimate right to interfere, much less treat the person as a criminal and impose punishment.

PQ1. Which of the following statements can we infer about Section 309 from the passage?

- A. Section 309 in the Indian Penal Code lays down the punishment for attempted suicide.
- B. Section 309 in the Indian Penal Code decriminalizes the act of attempted suicide.
- C. Section 309 in the Indian Penal Code gives privileges for the citizens who attempt suicide.
- D. Section 309 in the Indian Penal Code recommends punishment for attempted murder.

Answer: A

Exp: Option (a) is validated by, "I had occasion...Section 309 is unconstitutional."

Option (b) is incorrect as passage mentions decriminalization of Section 309; therefore, Section 309 cannot itself mean decriminalization of attempted suicide.

Option (c) is absurd with respect to the passage.

Option (d) is out of scope with "murder".

Hence, the correct answer is option a.

PQ2. In the above passage, what does the author refer to as a "bizarre situation"?

- A. Invocation of Section 309 in spite of the irrational reasoning behind it.
- B. People with good intentions being charged under Section 309.
- C. The constitution bench not being able to comprehend the meaning of Section 309.
- D. Constitution dictating the rights of the common man.

Answer: B

Exp: The sentence, "It failed to appreciate that if Section 309 is invoked, persons of integrity who fast unto death for laudable objectives would be criminals punishable under Section 309." indicates that if people fasting for genuine objectives are charged under Section 309, then the purpose of attaining that objective for the goodwill of people is defeated due to this law. Hence, option (b) is validated.

Option (a) is incorrect as it does not capture the "bizarre situation" discussed in the passage correctly.

Option (c) is not mentioned in the passage.

Option (d) cannot be corroborated from the passage.

Hence, the correct answer is option b.

PQ3. The sentence, "When I was arguing the case, I got the impression that the silent premise of the mindset and predilection of the constitution bench was that suicide is morally wrong and unethical." Implies:

- A. The author knew that the constitution bench was silent on the topic of criminalization of suicide.
- B. The author believed that the constitution bench did not consider the feelings of those who attempted suicide.
- C. The author believed that the constitution bench inherently thought that suicide was against morality.
- D. The author believed that the constitution bench lacked moral and ethical reasoning.

Answer: C

Exp: The given sentence implies that the author while arguing on the topic perceived the bench's thought to be inclined towards the immorality of suicide. This validates option (c).

Option (a) is incorrect because of the word "knew" as the author only assumed and wasn't sure.

Option (b) and (d) are not supported by any data in the passage.

Hence, the correct answer is option c.

PQ4. Consider the following statements:

1. A person's decision without any malicious intent should not be interfered with by the government.
2. It is a known fact that criminalizing the attempt to suicide is an irrational move.

Select the correct answer from the codes given below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

Exp: Statement 1 can be inferred from, "The crux of the matter... impose punishment."

Statement 2 can be inferred from, "Unfortunately, I failed Section 309 is unconstitutional."

Hence, the correct answer is option c.

Q5. I did not say anything to anybody here, but there wasn't a chance in a million that I was losing this thing. And if I did, every ounce that I had was left in the pool. I honestly didn't know that I only won the gold by a couple of hundredths of a second until the awards ceremony. Just to be able to see the No 1 next to my name again in the 200m fly one more time in the Olympics is a great feeling...the 200m event has really been a bread and butter event for me":-Michael Phelps after winning the gold medal in Rio 2016.

Which of the following is the most logical and rational inference that can be made from the above passage?

- A. Michael Phelps has never won a gold medal at the Olympics before.
- B. Michael Phelps was quite confident of winning the gold medal in 200m event in Rio 2016.
- C. Michael Phelps was not hopeful of winning a medal in any other event apart from the 200m in Rio 2016.
- D. The 200m fly is one of the toughest events in Olympics.

Answer: B

Exp: The passage states "to see the No. 1 next to my name again....." indicating that Phelps has won a gold medal before. Option (a) contradicts this and is eliminated.

From the passage it is clear that Phelps was confident of 200m event, but from that it cannot be necessarily inferred whether he is confident or not about other events. Thus, option (c) is eliminated.

The data about 200m fly being the toughest or easiest is not available in the passage and thus option (d) is eliminated.

The line in the passage, ".....but there wasn't a chance in a million, I was losing that thing...." clearly emphasizes the underlying confidence Michael Phelps had about winning gold in the 200m event. Thus, option (b) is a valid inference.

Hence, the correct answer is option b.

Q6. Scientists have unveiled the inner workings of a group of proteins that help to switch critical genes on and off during blood-cell production, a finding that could lead to the development of new and improved cancer drugs. Researchers described how a special group of proteins form into an enzyme that turns genes on and off to produce essential elements such as blood cells and stem cells. The ongoing research will help scientists advance their knowledge of how genes are regulated.

Which of the following is the most logical and rational assumption that can be made from the above passage?

- A. Cancer drugs, as of now, are not 100% effective but have the potential to improve.
- B. Apart from cancer, stem cell research can help in the treatment of a lot of other diseases like heart disease and strokes.
- C. Cancer is the deadliest disease known to humankind.
- D. The entire focus of the stem cell research is on the treatment of cancer.

Answer: A

Exp: The passage is talking about ongoing research findings that could aid in development of improved cancer medicines. That there is a need for such a research to be in progress validates the underlying assumption that cancer drugs need improvement. Hence, option (a) is a valid assumption.

Option (b) is eliminated as no data on other diseases is available in the passage.

Though the passage is only talking about cancer, it being the deadliest of all diseases is nowhere mentioned in the passage and thus option (c) is eliminated.

Again, option (d) is eliminated as the passage is talking only about cancer and does not necessarily indicate that cancer is the only area in which the research is being conducted.

Hence, the correct answer is option a.

Paragraph: DIRECTIONS for Questions 7 to 8 (2 items): Study the following information to answer the given questions- A building has seven floors numbered one to seven, in such a way that the ground floor is numbered one, the floor above it, number two and so on such that the topmost floor is numbered seven. One out of seven people viz. A, B, C, D, E, F and G lives on each floor. A lives on fourth floor, E lives on the floor immediately below F's floor. F does not live on the second or the seventh floor. C does not live on an odd numbered floor. B does not live on a floor immediately above or below C's floor. D does not live on the topmost floor. G does not live on any floor below Es floor.

PQ7. Who lives on the topmost floor?

- A. a
- B. f
- C. g
- D. b

Answer: C

Exp:

| Name of Floors | Name of Peoples |
|----------------|-----------------|
| VII | G |
| VI | C |
| V | D |
| IV | A |
| III | F |
| II | E |
| I | B |

PQ8. Who lives immediately above D's floor?

| Name of Floors | Name of Peoples |
|----------------|-----------------|
| VII | G |
| VI | C |
| V | D |
| IV | A |
| III | F |
| II | E |
| I | B |

- A. c
B. a
C. e
D. b

Answer: A

Exp: None

Q9. The angles of a quadrilateral are in the ratio of 3:5:9:7. The second largest angle of the quadrilateral is equal to the largest angle of a triangle. One of the angles of the triangle is 25° . What is the value of the second largest angle of the triangle?

- A. 60°
B. 75°
C. 50°
D. None of the above

Answer: C

Exp: Let the angles of the quadrilateral be $3x, 5x, 9x, \& 7x$ respectively

$$3x+5x+x9x+7x = 360$$

$$= 24x = 360$$

$$x = \frac{360}{24} = 15$$

$$\text{Second largest angle} = 7x = 7(15) = 105$$

$$\text{One of the angles of the triangle} = 105$$

$$\text{Another angle} = 25$$

$$\text{Third angle} = 180 - (105+25) = 180-130 = 50 \text{ degree.}$$

Q10. Which of the following expressions will be true if the given expression ' $A>B\geq C<D<E$ ' is definitely true?

- A. $A\geq C$
B. $E\geq C$
C. $D\geq B$
D. None of the above

Answer: D

Exp: None

Q11. What will come in place of question mark (?) in the following series: 17 289 425 493 527?

- A. 545
B. 625
C. 544
D. 627

Answer: C

Exp: $17 + 272 = 289 + 136 = 425 + 68 = 493 + 34 = 527 + 17 = 544$

Q12. Consider the following statements:

1. A man's age is 125% of what it was 10 years ago.
2. A man's age is $83\frac{1}{3}\%$ of what it will be after 10 years.

What is the present age of the man?

The above question can be solved on the basis of

- A. Statement 1 alone
- B. Statement 2 alone
- C. Both statements 1 and 2 together
- D. Either statements 1 or 2 alone

Answer: D

Exp: From statement 1,
let the present age be x year
Then, 125% of (x-10) = x;

$$\frac{5}{4}(x-10) = x;$$

$$5x - 50 = 4x;$$

$$x = 50.$$

From statement 2,

$$83\frac{1}{3}\% \text{ of } (x+10) = x$$

$$\frac{5}{6}(x+10) = x$$

$$5x + 50 = 6x$$

$$6x - 5x = 50$$

$$x = 50$$

The answer can be arrived at from either of the statements.
Thus the answer is d.

Q13. A motorcyclist goes from Delhi to Chandigarh, a distance of 237 km, at an average speed of 60 km/hr. Another man starts from Delhi by car $2\frac{1}{4}$ hrs after the motorcyclist, and reaches Chandigarh $\frac{3}{4}$ hrs earlier.

Which is the ratio of speeds of motor cycle and car?

- A. 2:3
- B. 3:2
- C. 1:2
- D. None of the above

Answer: D

Exp: Time taken by motorcycle = $\frac{237}{60}$ hrs

$$\text{Time taken by car} = \frac{237}{60} - \left(2\frac{1}{4} + \frac{3}{4}\right) = \frac{237}{60} - 3 = \frac{57}{60}$$

$$\text{Ratio of time} = \frac{237}{60} : \frac{57}{60}$$

$$\text{Ratio of speed} = \frac{57}{60} : \frac{237}{60} = 57 : 237 = 19 : 79$$

Q14. Ten years ago, the average age of 4 family members was 24 years. In the meantime two babies were born in the family at a gap of two years. At present also the average age of the family is 24 years. What is the age of the younger child?

- A. 5 years
- B. 2 years
- C. 3 years
- D. can't be determined

Answer: C

Exp: Total age of 4 family members 10 years back = $24 \times 4 = 96$ years

Total age of 4 family members at present
= $96 + 40 = 136$ years

At present the family consist of 6 members, so total age of family members = $24 \times 6 = 144$ years.

Total sum of age of 2 new born babies = $144 - 136 = 8$ years

Let the younger child's age be x then older child's age will be $x+2$

$$x+x+2 = 8$$

$$2x + 2 = 8$$

$$2x = 6$$

$$x = 3$$

Q15. The interior angles of a regular hexagon are x , $(x+20)$, $(x+40)$, $(x+50)$, $(x+90)$ and $(x+100)$.

Find the value of the largest angle of the regular hexagon.

A. 150°

B. 165°

C. 170°

D. 175°

Answer: C

Exp: The sum of interior angles of a regular hexagon = $(2x-4) 90 = (2*6-4)*90 = 720$

$$x+x+20x+40+x+50+x+90+x+100 = 720$$

$$6x + 300 = 720$$

$$6x = 420$$

$$x = 70$$

$$\text{Largest angle} = (x+100) = 100+70 = 170$$

Q16. Four different candles, which can last for 1 hour, $5^{1/2}$ hours, 3 hrs and $1^{1/2}$ hrs of burning, respectively are lit in a room at the same instant and allowed to burn till such time that any three candles in the room get extinguished. The cost of burning each one of these candles is 75 paise per hour. By the time of full burnout of the three candles the total cost involved will be

A. Rs. 4.125

B. Rs. 8.25

C. Rs. 6.375

D. None of the above

Answer: C

Exp: Total cost involved = $(1+1\frac{1}{2}+3+3)*0.75 = 8.5*0.75 = \text{Rs. } 6.375$

Paragraph: DIRECTIONS for Questions 17 to 18 (2 items)- Study the following information and answer the given questions. A delegation of five is to be selected out of six scientists G, H, I, J, K and L and three doctors X, Y and Z to attend a conference. Four scientists and one doctor are to be selected, subjected to the following conditions: (1) K will not go if L goes (2) K will go only if Y goes (3) I will go only if H goes (4) G will not go if X goes

PQ17. If I is selected and Y is not selected then how many five member delegations are possible?

A. 5

B. 4

C. 6

D. 7

Answer: B

Exp: The possible teams are IHXJL, IHZGJ, IHZGL and IHZJL

PQ18. If the condition in Question 17 is true, then, if G goes, which of the following combinations satisfy the conditions?

1. GHJKZ

2. GHIJZ

3. GIJKY

4. GHJKX

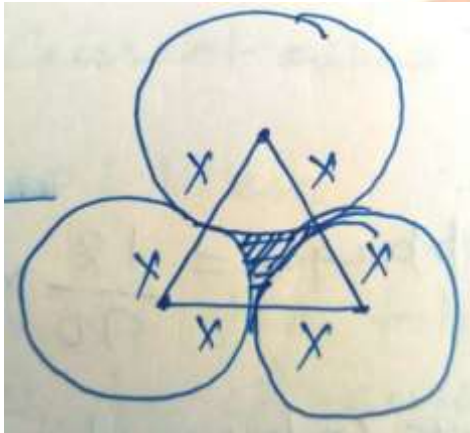
Select the correct answer using the codes given below:

- A. 1 and 3 only
- B. 1 only
- C. 2 only
- D. None of the above

Answer: C

Exp: (1) K will go only if Y goes (2) We require H for I in the delegation (3) I will go only if H goes (4) YG and X will not be together

Q19. Three equal circles of radius x cm are described about the vertices of a triangle of side $2x$ cms as shown in the figure below. What is the area of the shaded region in cm^2 ?



- A. $\frac{1}{3}(\sqrt{3} - \pi) x^2$
- B. $\frac{1}{2}(\sqrt{3} - \pi) x^2$
- C. $\frac{1}{2}(2\sqrt{3} - \pi) x^2$
- D. $(\frac{\sqrt{3}}{4} - \pi) x^2$

Answer: C

Exp: Area of shaded region = Area of equilateral triangle - 3 times area of one sector = $\frac{\sqrt{3}}{4}(2x)^2 - \frac{3\pi}{360}x^2 \cdot 60 = \frac{1}{2}(2\sqrt{3} - \pi) x^2$

Q20. Two numbers are such that their difference, their sum and their product are in the ratio of 1:7:24. The product of the numbers is

- A. 108
- B. 12
- C. 24
- D. 48

Answer: D

Exp: None

Q21. Consider the following statement and the two statements that follow from it:

Main statement:

Only those with a PAN card can open a bank account.

Statements that follow:

1. Ram has a PAN card and thus, could open a bank account.
2. Rahim could not open a bank account and thus, does not have a PAN card.

Which of the above statements follow from the main statement?

- A. 1 only
- B. 2 only

- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: A

Exp: None

Q22. 'To live or not to live,' this agonizing question confronts many. The agony is aggravated by the cruel anomaly in our penal jurisprudence that if a person succeeds in his attempt to commit suicide and dies that's the end of the matter. But if the person doesn't, the suicide attempt may see him behind bars and is punishable under Section 309 of our penal code by simple imprisonment for a term which may extend to one year or fine or with both. Section 309 is a cruel and irrational provision, and it may result in punishing a person again (doubly) who has suffered agony and would also be suffering ignominy because of his failure to commit suicide. Also, the section is infringing on the right to life, which is a natural right of citizens embodied in Article 21 and hence it becomes unconstitutional. To Rajya Sabha's credit, it recently passed the Mental Health Care Bill 2015 which provides that anyone attempting to commit suicide wouldn't be punished under Section 309. The proposed law doesn't in terms repeal or amend Section 309 but in substance nullifies its penal consequences.

Which of the following statements is least essential as a part of the argument in the above passage?

- A. Constitutional laws, though sacrosanct, are for the people and should be flexible enough to accommodate changes.
- B. Section 309, if not dealt with in a sensitive and humane way, could be construed as violation of human rights.
- C. The founding fathers of the Constitution had possibly erred in framing Section 309 of the Constitution.
- D. Mental illness of the person committing suicide should be taken into consideration while dealing with Section 309.

Answer: D

Exp: The passage is talking about Section 309 being an irrational provision and how it is currently nullified by the new amendments in law. Thus (a) is an essential argument.

It is mentioned in the passage that Section 309 leads to violation of citizen's right to life and on those lines, option (b) also is an essential argument.

According to the passage, Section 309 is downright wrong and thus option (c) also is essential.

Option (d) may or may not be true but it is taking the focus away from the main argument which is the repeal of Section 309 and hence is the least essential to the argument.

Hence, the correct answer is option d.

Q23. United Nations Secretary-General Ban Ki Moon says he would personally like to see a woman lead the United Nations for the first time since it was established more than 70 years ago. As he nears the end of his second five-year term on Dec. 31, Ban said that "it's high time now" for a female secretary general after eight men at the helm of the world organization. There are currently 11 candidates vying to succeed Ban, six men and five women.

Which among the following is the most logical assumption that can be made from the above passage?

- A. Women are under- represented in the United Nations.
- B. United Nations is likely to get a female secretary general in the ninth term.
- C. United Nations Secretary General's post has been a male bastion ever since its inception.
- D. More number of men applied for the UN Secretary General's post than women in each of the last eight terms.

Answer: C

Exp: According to the passage, women are under-represented only in UN Secretary General's post and not in the United Nations. Thus, option (a) is not a valid assumption.

One cannot necessarily assume from the passage that the UN will get a woman secretary general in the ninth term, and thus option (b) is not a valid assumption.

The number of men and women applied for the job of secretary general cannot be assumed from the data in the passage, and thus option (d) is eliminated.

The line in the passage that states ".....to see a woman lead the United Nations for the first.....established more than 70 years ago", clearly assumes the male dominance in that position and thus option (c) is a valid assumption.

Hence, the correct answer is option c.

Paragraph: DIRECTIONS for Questions 24 to 26 (3 items)- Read the passage given below and answer the questions that follow: **PASSAGE 2-** People who buy books just to flaunt them irritate me beyond words. There are genuine bibliophiles who love to read and discuss what they have read. But there are also pseudo bibliophiles, who buy books, never to read them. The moment a new book arrives, these pretenders will pick it up just to show that they are abreast of all new titles hitting the stands and bookstores. They boastfully showcase the books and you can safely hazard a guess by just having a look at their covers that the buyer hasn't read them. Many a time, unseparated pages directly from the press, remain in the same state, divulging the lie. Agreed, a book's shining appearance looks good to the eyes. But it should be read, and in the process of reading it invariably loses its pristine shine and gloss. A well-thumbed (but certainly not with the pages torn) book has its own beauty and charm. The more you use a book, the more it attracts readers. In libraries, true-blue discerning readers often pick up those books, which have lost their shine. The books that retain their glossiness even after a considerable period, aren't great books. No offence meant to those who showcase their rich collection of books at home, but it has been my experience that very few of them really read all the books that they display at home for guests.

PQ24. The sentence "Many a time, unseparated pages directly from the press, remain in the same state, divulging the lie." from the passage implies that:

- A. Some people use books as yardsticks just to show their elitism.
- B. Some books retain their glossiness even after considerable amount of time.
- C. Unruffled look of the pages of books indicate that they haven't been opened.
- D. People like to buy books for reading in future and not for immediate reading.

Answer: A

Exp: Option (a) is correct as it aptly draws a conclusion from the given statement as the author in the passage says that some people just buy books to boast about it.

Option (b) is an incorrect implication as it misses out on the "lying" part.

Since the question is about implication, option (c) is ruled out as it is almost a direct translation of the given statement. In any case, between options (a) and (c), it is option (a) that captures the implication more completely as it covers people's boastfulness.

Option (d) is eliminated as it is not corroborated by the passage.

Hence, the correct answer is option a.

PQ25. According to the passage, a loyal reader with good taste in books would

- A. pick up meaningful books with good storyline.
- B. pick up old books with aging paper.
- C. pick up glossy books.
- D. pick up any book regardless of its newness.

Answer: B

Exp: Option (b) can be inferred from "In libraries, true-blue discerning readers often pick up those books, which have lost their shine."

Options (a), (c) and (d) cannot be inferred from the passage.

Hence, the correct answer is option b.

PQ26. Black holes may be a portal that can transfer matter to another part of the universe, rather than destroying it, a new study has claimed. One of the biggest problems when studying black holes is that the laws of physics as we know them cease to apply in their deepest regions. Large quantities of matter and energy concentrate in an infinitely small space, the gravitational singularity, where space-time curves towards infinity and all matter is destroyed. However, a new study at the Institute of Corpuscular Physics (IFIC) in Spain suggests that matter might in fact survive its foray into these space objects and come out of the other side.

Which among the following is the most logical corollary to the above passage?

- A. The Black holes are a passage to a new universe.
- B. Gravitational singularity destroys almost all matter and only a portion of it is able to pass through to the other side.
- C. The laws of physics might lose their importance in the near future.
- D. Certain revolutionary theories on black hole threaten to overturn some of the most basic tenets of physics

Answer: D

Exp: The passage only suggests that the black holes may be a portal for transferring matter from one universe to other. This tentative fact cannot be used to claim that black holes are a passage to a new universe. Thus, option (a) is eliminated.

Option (b) is eliminated as “only a portion of matter is able to pass” is not corroborated by the passage.

Option (c) is incorrect as the passage initially says that laws of physics may not work when it comes to black holes but later it goes on to say that a new study has shown that black hole theory might be consistent with the laws of physics. Thus, the credibility of the laws of physics is not tarnished.

The passage expresses doubts over laws of physics with reference to black hole. Thus, option (d) is an apt corollary.

Hence, the correct answer is option d.

Q27. Consider the following statements:

1. Only tablets are computers and the Mac is a tablet. Thus, the Mac is a computer.
 2. No pianist plays sports and no sportsperson knows music. Thus, no pianist knows music.
- Which of these statements is/are logically consistent?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: D

Exp: None

Q28. How many digits are required for numbering the pages of a book containing 1000 pages?

- A. 6489
- B. 3892
- C. 2893
- D. 2883

Answer: C

Exp: The number of digits = $9 \times 1 + 90 \times 2 + 900 \times 3 + 1 \times 4 = 2893$.

Q29. A train without stoppages covers a certain distance at an average speed of 90 km/hr. But with stoppages its speed is reduced to 72 km/hr. How many minutes per hour does the train stop?

- A. 15 minutes
- B. 20 minutes
- C. 12 minutes

D. 10 minutes

Answer: C

Exp: Time spent in stoppages = $\frac{18}{90} * 60 = 12$ minutes.

Paragraph: DIRECTIONS for Questions 30 to 33 (4 items)- Study the following information carefully and answer the given questions: (1) Five subjects CSAT, Polity, Economics, Governance and Current affairs are to be discussed, one topic on each day, from Monday to Saturday. (2) CSAT will be discussed before Current affairs and Polity will be discussed before Governance. (3) Subjects Polity and Governance will not be discussed on the first day. (4) There will be one rest day denoted by H. (5) There will be a gap of two days between the days on which subjects Governance and Polity will be discussed. (6) Subject Economics will be discussed immediately before the rest day. The rest day will not be the second or the fourth day.

PQ30. Which of the following is the current sequence of the discussion on the subjects including the rest day 'H'?

- A. CSAT, Polity, Economics, H, Governance, Current affairs
- B. CSAT, Polity, Current affairs Economics, 'H', Governance.
- C. CSAT, Current affairs, Polity, Economics, 'H', Governance
- D. None of the above

Answer: C

Exp: None

PQ31. On which of the following days will subject Economics be discussed?

- A. Monday
- B. Tuesday
- C. Thursday
- D. Wednesday

Answer: C

Exp: None

PQ32. On which of the following days will there be holiday?

- A. Saturday
- B. Thursday
- C. Friday
- D. Wednesday

Answer: C

Exp: None

PQ33. How many days gap will be there between the days on which Current affairs and Polity will be discussed?

- A. One
- B. Nil
- C. Two
- D. Three

Answer: B

Exp:

| | |
|-----------|-----------------|
| Monday | CSAT |
| Tuesday | Current affairs |
| Wednesday | Polity |
| Thursday | Economics |
| Friday | 'H' |
| Saturday | Governance |

Q34. Consider the diagram given below in which the numbers bear certain relationship among themselves:

| | | |
|----|----|----|
| 5 | 3 | 4 |
| 13 | 12 | 5 |
| 61 | X | 60 |
| 25 | 24 | 7 |

Which of the following is the missing number indicated above by X?

- A. 7
- B. 9
- C. 11
- D. 15

Answer: C

Exp: Clearly, (3rd column)² + (2nd column)² = (1st column)²

In the first row, 4² + 3² = 5².

In the second row, 12² + 5² = 13²

Let the missing number in the third row be x.

Then x² + 60² = 61² or x² + 3600 = 3721 or x² = 121 or x = 11.

Paragraph: DIRECTIONS for Questions 35 to 36 (2 items)- Read the following information carefully to answer the given questions: There are five married couples in a family and there is a child to every couple. Name of the males are Manoj, Neeraj, Om, Pankaj and Ram. Name of the children are A, B, C, D and E. Ages of the children are 13, 14, 15, 16 and 19 years. Name of the females are V, W, X, Y and Z. Name of Manoj's child is not C or E and he is not the eldest or youngest. Age of X's child is 16 years and her husband is one among Neeraj, Om and Ram. Age of D is 13 years but she is not a child of Om. A's age is a multiple of 4 but she is not a child of Manoj or V. W's husband is Om or Ram. Age of Z's child is 15 years but the name of child is not B or E. V is wife of Om. Pankaj is husband of Z.

PQ35. What is the age of B?

- A. 14
- B. 16
- C. 15
- D. 19

Answer: A

Exp:

| | | | | | |
|--------|-------|--------|----|--------|-----|
| Male: | Manoj | Neeraj | Om | Pankaj | Ram |
| Wives: | Y | X | V | Z | W |
| Child: | B | A | E | C | D |
| Age: | 14 | 16 | 19 | 15 | 13 |

PQ36. Who is the wife of Manoj?

- A. X
- B. Y
- C. W
- D. V

Answer: B

Exp:

| | | | | | |
|--------|-------|--------|----|--------|-----|
| Male: | Manoj | Neeraj | Om | Pankaj | Ram |
| Wives: | Y | X | V | Z | W |
| Child: | B | A | E | C | D |
| Age: | 14 | 16 | 19 | 15 | 13 |

Q37. An alphabet series is given with one term missing. Choose the missing terms out of the given alternative in the following sequence: ab__baa_b__aab

- A. aaaaa
- B. aacaa
- C. cccaa
- D. baacb

Answer: A

Exp: Here the series is ab, aab, aaab, ...

Q38. In a certain code BOSCH is written as &43\$8 and FIRST is written as 5*#37. END is written as %12. How is SCORE written in that code?

- A. 3%4\$#
- B. 473#
- C. 3\$4#%
- D. 347#

Answer: C

Exp: BOSCH = &43\$8; FIRST = 5*#37; END = %12

S=3, C=\$, O=4, R=#, E=%

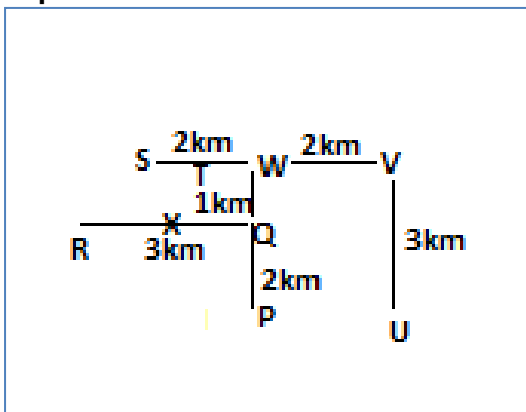
So, SCORE = 3\$4#%

Q39. Study the information given below carefully and answer the questions that follow: P, Q, R, S, T, U, V, W and X are nine friends standing. R is 3km west of Q. P is 2km south of Q and W is 3km north of P. V is 2km east of W while S is 4km west of V and U is 3km South of V. X is standing just in middle of Q and R while T is just in middle of W and S. Distance between T and V is

- A. 1 km
- B. 2 km
- C. 3 km
- D. None of the above

Answer: C

Exp:



Q40. Study the information given below carefully and answer the question that follows:

On a playing ground, Deepak, Kapil, Neeraj, Abhishek and Pratik are standing as described below facing the north.

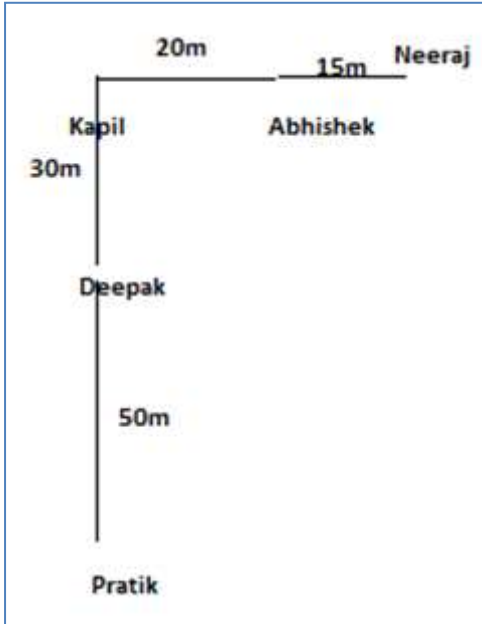
1. Kapil is 20 meters to the left of Abhishek.
2. Deepak is 30 meters to the south of Kapil.

3. Neeraj is 15 meters to the east of Abhishek.
 4. Pratik is 50 meters to the south of Deepak.
 Who is to the south-west of Neeraj?

- A. Kapil
 B. Abhishek
 C. Deepak
 D. None of the above

Answer: C

Exp:



Paragraph: DIRECTIONS for Questions 41 to 42 (2 items)- Read the passage given below and answer the questions that follow: PASSAGE 3- newspaper despite its deadline-driven process remains the first draft of history. And history itself is a very difficult discipline. There are instances where writers capture the difficulties of history with all its complexities. Man Booker Prize-winning author Julian Barnes, in his 2011 novel, *The Sense of an Ending*, has a powerful meditation on history as well as fixing responsibility. One of his characters asks: "Isn't the whole business of ascribing responsibility a kind of cop-out? We want to blame an individual so that everyone else is exculpated. Or we blame a historical process as a way of exonerating individuals... It seems to me that there is — was — a chain of individual responsibilities, all of which were necessary, but not so long a chain that everybody can simply blame everyone else. But of course, my desire to ascribe responsibility might be more a reflection of my own cast of mind than a fair analysis of what happened. The question of subjective versus objective interpretation, the fact that we need to know the history of the historian in order to understand the version that is being put in front of us." Exactly the same applies to newspaper reporting.

PQ41. With reference to the above passage, consider the following statements:

1. Newspapers report genuine information.
2. Newspaper reporting at times can be subjective.

Which of the statements given above is/are correct?

- A. 1 only
 B. 2 only
 C. Both 1 and 2
 D. Neither 1 nor 2

Answer: B

Exp: From the passage, one cannot exactly comment on the credibility of the content of the

newspapers. So, eliminate statement 1.

The passage suggests that though newspapers present first draft of history, the reporting could be subjective sometimes depending on the reporter's own biases. Hence, statement 2 is validated.

Hence, the correct answer is option b.

PQ42. Which of the following can be implied from the passage?

- A. The news-gathering process is not transparent.
- B. Historians are incapable of expressing the actual information on paper.
- C. Readers should understand the thin line between trust and gullibility.
- D. Newspapers should have stringent editing checks in the news generation process.

Answer: A

Exp: The passage enlightens us on how newspaper writers build their stories by taking the example of historians and the facts presented by them. The author alerts the reader on the subjectiveness of reporting at times and indirectly advises him/her to exercise caution before trusting any news piece. Thus option (a) is implied.

Options (b) is eliminated as it is incorrect with respect to the passage.

Option (c) is not implicit in the passage but a clear message conveyed. So, eliminate option (c).

Option (d) is out of scope of the passage as what can be done to solve the issue is not stated. Hence, the correct answer is option a.

Q43. When Indian artist Dattadri Kothur saw the pollution caused by an annual Indian tradition of immersing elaborately decorated idols of the elephant-headed god Ganesha in the sea, he decided to do something about it. The 30-year-old has come up with an environmentally friendly alternative that will make its debut during this year's festival in September and it is already proving a huge hit throughout India. Kothur's "Tree Ganesha" idols are made entirely out of organic materials that will disintegrate when they get wet, and are designed to be watered like a plant rather than immersed in the sea. Once they are dampened, seeds hidden inside them will germinate, creating a lasting memento of the idol. "After witnessing large-scale water pollution and broken idol parts strewn across Mumbai's Girgaum Chowpatty sea front, I decided to create an organic alternative," Kothur told reporters.

Which is the critical inference that can be made from the above passage?

- A. A lot of Indians are now literate and hence have started recognizing the value of environment.
- B. India has a huge population and trivial initiatives for environmental protection would not be able to make an impact.
- C. The immersion of Ganesha idols in the sea does not cause as much pollution as vehicles do.
- D. Increasing number of people are aware of the environmental pollution and are actively seeking a long-term sustainable solution.

Answer: D

Exp: The relation between literacy and environmental awareness is out of scope of the passage and thus option (a) is eliminated.

Option (b) may or may not be true. Nothing about the consequences of the initiative has been mentioned in the passage.

Vehicular pollution is out of context of the passage and hence option (c) is eliminated.

As per the passage, environmentally friendly "tree ganesha" is a huge hit in India which reflects the increased environmental awareness among Indians. Thus, option (d) is a valid inference.

Hence, the correct answer is option d.

Q44. Multilateralism is fraying at the edges. While global problems, requiring effective global coordination, abound, multilateral cooperation has been gridlocked recently. The World

Trade Organisation (WTO) was driven to irrelevance by the collapse of the Doha trade round in 2008. The last successful global trade talks were held in Uruguay, almost 23 years ago. While multilateral relevance in trade talks seems questionable, the world has forged ahead with a cluster of regional and bilateral trade agreements. Isolationist populism has thrived. Immigration worries cloud the horizon. Even geopolitical competition is gradually eschewing multilateral institutions. China's rejection of the Permanent Court of Arbitration's decision in the South China Sea case, despite signing up to the United Nations Convention on the Law of the Sea, along with Russia's absorption of Crimea, shows changes in the global order. The march of liberal democracy and free trade, in tandem, in lockstep with global institutions, has seemingly stopped.

In the light of the argument in the above passage, which one of the following statements, if true, is the least convincing explanation?

- A. Multilateralism, though looks ideal in theory, is a very difficult thing to put in practice because of the contradicting interests of the involved parties.
- B. Most countries are more interested and comfortable in dealing with immediate neighbours than dealing at a global level.
- C. Although multilateral negotiations are basically similar to bilateral, a number of sophisticated methods and techniques have been developed in multilateralism to cope with extensive diplomatic interactions.
- D. Multilateralism is increasingly perceived to be a straightjacket, in cahoots with great powers and industrial lobbies.

Answer: D

Exp: The passage is talking about multilateralism losing its ground and bilateral and regional agreements thriving. Each of the options (a), (b), and (d) give valid explanations for this phenomenon.

Option (c) contradicts the passage and cannot be an explanation for multilateralism losing its ground as it is talking of the opposite. Thus, option (c) is not a valid explanation.

Hence, the correct answer is option d.

Paragraph: DIRECTIONS for Questions 45 to 46 (2 items)- *Answer the following questions based upon the given information.*

PQ45. Air travel is becoming increasingly more dangerous. In the last year there have been seven major collisions resulting in over 700 deaths, more deaths than in any previous year. Which statement, if true, would most weaken the argument above?

- A. Since the volume of air traffic has been increasing all the time, an increase in the number of deaths due to collisions does not necessarily mean greater danger.
- B. The increase in collisions can be explained by statistical coincidence, hijackings, and unusual weather.
- C. Mortality per passenger mile is lower for air travel than for any kind of surface transportation.
- D. The increase in deaths due to collision in air travel has proceeded at a rate identical to that for deaths in all other major forms of transportation.

Answer: A

Exp: If more and more people are travelling by airplane, an increase in the number of deaths doesn't prove that air travel is becoming more dangerous. The question of how dangerous air travel is can't be answered unless we know the proportion, not the number, of passengers who get killed. Hence A. The author's contention isn't undermined by option B the reasons for the lack of safety. Pointing out more dangerous methods of transportation in option C doesn't deny that the danger of air travel is increasing. Similarly, the fact that other forms of transportation are also getting more dangerous in option D doesn't weaken the author's claim.

PQ46. Although most people know that exercise is good for the body, few realize the extent to which it is valuable to the mind. The blood circulates more rapidly after physical exertion,

thus allowing all of the body's organs to operate more efficiently. This increased activity enables the brain to receive more oxygen, thereby creating a higher capacity for concentration.

The main point in the argument above is that

- A. the greater the amount of oxygen the brain receives, the better the brain functions.
- B. exercise is a mental, as well as physical, activity.
- C. exercise helps the brain more than it does the rest of the body.
- D. exercise serves more than one purpose.

Answer: D

Exp: The conclusion is that exercise is good for the mind as well as for the body because exercise increases the speed at which blood circulates, allowing the brain to receive more oxygen and thus concentrate better. Option A is wrong because the author's point is the beneficial effects of exercise, not the unlimited benefits of oxygen. Option B is wrong because while exercise aids mental activity, it is not a mental activity as such. Option C is wrong because whether exercise aids the brain more or less than the rest of the body isn't discussed.

Paragraph: DIRECTIONS for Questions 47 to 49 (3 items)- Read the passage given below and answer the questions that follow: **PASSAGE 4 - Multilateralism's rise was the product of unique post-war factors such as American hegemony combined with a post-war consensus on the benefits of democracy. Its decline remains structural. Multilaterals have continued to remain self-servingly rigid, their memberships with associated power hierarchies inflexible for instance, India's struggle to gain its rightful place at the UN Security Council. Such institutions have also increasingly become prone to conflict instead of consensus, with gaming of system through votes and agenda dilution. The rise of rival institutions – the Asian Infrastructure Investment Bank in response to the World Bank, the Shanghai Cooperation Organisation in response to NATO and the G-7 – have all hogged aid resources while standing as tombstones to an eschewed past. Meanwhile, developed societies have changed, embracing individualism over social democracy – the trend towards atomisation continues apace. Something similar to pre-war liberal retreat is afoot now. The European welfare state, once a model of social constitutionalism, is fraying at the edges, unable to cope with an influx of immigrants, refugees, and rise in inequality. Globalisation, once sold as offering promising service economies to the citizens of the West, has stalled in lieu of a hollowed-out manufacturing sector. Transatlantic multilateral institutions have failed to manage global challenges such as global warming and financial instability. Global powers are no longer a cosy club. The West has had its energy sapped by the European crisis, the morass in West Asia, and domestic political gridlock.**

PQ47. According to the passage, why has globalisation broken down?

- A. Inability to control global warming.
- B. Poor performance of manufacturing sector.
- C. The European crisis affecting the world.
- D. The hostile attitude of global powers.

Answer: B

Exp: Option (b) can be inferred from, "Globalisation, once sold as offering promising service economies to the citizens of the West, has stalled in lieu of a hollowed-out manufacturing sector."

Options (a), (c) and (d) cannot be inferred to be the causes of sinking of globalisation. Hence, the correct answer is option b.

PQ48. The collapse of the European welfare state can be attributed to

- A. Social inequality between the rich and the poor.
- B. Mushrooming of institutions like NATO and G-7.
- C. Unprecedented inflow of non-EU citizens in Europe.
- D. Financial instability in the EU countries.

Answer: C

Exp: Option (c) can be inferred from “The European welfare state, once a model of social constitutionalism, is fraying at the edges, unable to cope with an influx of immigrants, refugees, and rise in inequality.”

Option (a), (b) and (d) are not related to the question stem.

Hence, the correct answer is option c.

PQ49. According to the passage, India’s struggle to gain its rightful place at the UN Security Council shows that

1. A multilateral framework has a rigid structure.
2. Developed countries outcast the developing and the underdeveloped members.
3. The system of voting for new membership is rigged.

Select the correct answer from the codes given below:

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

Exp: Statement 1 can be inferred from “Its decline....UN Security Council.”

Statements 2 and 3 are more of an allegation as there is no proof in the passage to verify their claims.

Hence, the correct answer is option a.

Paragraph: DIRECTIONS for Questions 50 to 51 (2 items)- Study the following information carefully and answer the question given below: M, N, O, P, Q, R and S are seven friends working in a Private Hospital. Each of them have different days off in a week from Monday to Sunday not necessarily in the same order. They work in three different shifts Morning, Evening and Night with at least two of them in each shift. S’s day off is on Saturday. O’s day off is on Wednesday. M’s day off is Tuesday and he does not work in the same shift with either N or S. None of those who work in Morning shift have days off either on Wednesday or on Friday. R works with only Q in Night shift. P’s day off is Sunday. Q’s day off is not on Wednesday. S’s day off is not on the previous day of M’s day off. P works in Morning shift. N does not work in the same shift with O and his day off is not on Thursday. O works in Evening shift and his day off is not Sunday. R’s day off is immediate next day of that of O’s day off.

PQ50. Which of the following is S’s day off?

- A. Tuesday
- B. Monday
- C. Saturday
- D. Data inadequate

Answer: C

Exp:

| | | | | | | | |
|-----------|-----|-----|-----|-------|-----|-----|-----|
| | Mon | Tue | Wed | Thurs | Fri | Sat | Sun |
| Day Offs: | N | M | O | R | Q | S | P |

PQ51. Which of the following groups of friends work in Evening shift?

- A. MO
- B. RS
- C. MRS
- D. Data inadequate

Answer: A

Exp:

| | | | |
|---------|---------|---------|-------|
| Shifts: | Morning | Evening | Night |
| | P/N/S | O/M | R/Q |

Q52. Out of 160 students in a class it is found that 65 play cricket, 70 play hockey and 90 play football. 30 students play both cricket and hockey, 40 play cricket and football and 35 play hockey and football. 15 students play none of the games.

How many students play all the three games?

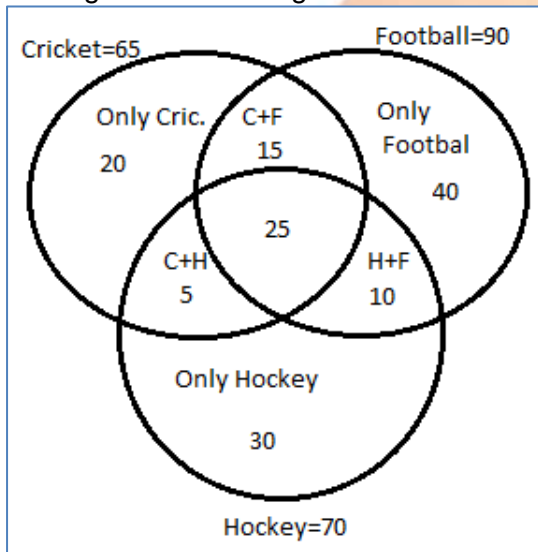
- A. 30
- B. 25
- C. 45
- D. 50

Answer: B

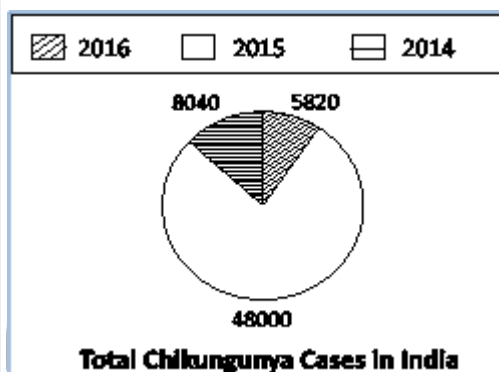
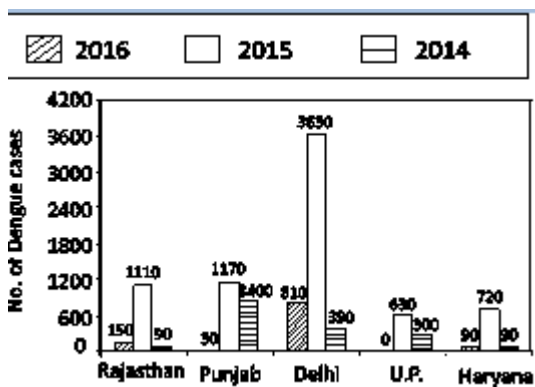
Exp: Total students who are playing = $160 - 15 = 145$.

Students playing all the three games $\Rightarrow 145 = 65 + 70 + 90 - 30 - 40 - 35 +$ Students playing all three games.

Solving the above we get 25 students who play all the three games.



Paragraph: DIRECTIONS for Questions 53 to 55 (3 items)- Study the following diagrams carefully and answer the given questions. Chikungunya cases reported from various states during the given years:



PQ53. What was the difference between the average number of Chikungunya cases of the five states in 2015 and that in 2016?

- A. 1110
- B. 1236
- C. 1170
- D. None of the above

Answer: B

Exp: Average number of Chikungunya cases of the five states in 2015 = $(1110 + 1170 + 3630 + 630 + 720)/5 = 7260/5 = 1452$

Average number of Chikungunya cases of the five states in 2016 = $(150 + 30 + 810 + 0 + 90)/5 = 1080/5 = 216$

Thus, the difference between the average number of Chikungunya cases of the five states in 2015 and that in 2016 was $1452 - 216 = 1236$

PQ54. What was the percentage increase or decrease in Chikungunya cases in Delhi in year 2016 with respect to the previous year?

- A. 77.68% decrease
- B. 77.68% increase
- C. 348.15% decrease
- D. 348.15% increase

Answer: A

Exp: The number of Chikungunya cases in Delhi in year 2016 was 810 while the number of Chikungunya cases in Delhi in year 2015 was 3630.

Therefore, the percent decrease was $(3630 - 810)/3630 \times 100\% = 2820/3630 \times 100\% = 77.68\%$.

PQ55. Approximately what percent Chikungunya cases were reported in Haryana in 2015 with respect to total cases reported in India that year?

- A. 3.6%
- B. 7.2%
- C. 3%
- D. 1.5%

Answer: D

Exp: The number of Chikungunya cases reported in Haryana in 2015 was 720.

The total number of Chikungunya cases reported in all the states in 2015 was 48000.

Therefore, the percent of Chikungunya cases from Haryana was $720/48000 \times 100\% = 1.5\%$

PQ56. Krishna and his friend start a work on day one. On the second day, one more friend of Krishna joins them. On the third day 2 more friends of Krishna join them and so on. If the work is completed exactly this way in 30 days, then find the number of days in which 15 other men can complete the same work if their efficiency is thrice as that of Krishna and his friends? (Assume that Krishna and his friends have same efficiency).

- A. 11
- B. 22
- C. 33
- D. 5.5

Answer: A

Exp: Let Krishna and his friends alone can complete one unit of work in one day. Then, total work completed by Krishna and his friends in 30 days = $2 + 3 + 4 + 5 + \dots + 31 = 495$ units. One man can complete three units of work in one day, then 15 men can complete 45 units of work in one day. Thus, 495 units of work will be completed by them in $495/45$ days = 11 days.

Q57. There are 40 pipes that are connected to a tank. Some of them are 'fill' pipes and the others are 'empty' pipes. Each of the 'fill' pipes can fill the tank in 18 hours and each of the 'empty' pipes can drain the tank completely in 12 hours. If all the 'fill' pipes and 'empty' pipes are kept open in an empty tank and the tank always remains empty, then how many pipes are 'empty' pipes?

- A. 24
- B. 20
- C. 16
- D. 12

Answer: C

Exp: If the ratio of time taken by 'fill' pipes to that of 'empty' pipes was 18 : 12, i.e. 3 : 2, then the ratio of the number of 'fill' pipes and 'empty' pipes will be also in the same ratio, i.e. 3 : 2 (because the tank always remains empty)

So, on dividing 40 in the ratio of 3 : 2, we get number of 'empty' pipes = 16.

Q58. A factory produces wheels and rims. A machine produces only wheels while another produces only rims. The machine producing only wheel produces 1200 wheels per minute and needs to be cleaned for 30 minutes after production of 6000 wheels. The machine producing only rims produces 900 rims per minute and needs to be cleaned for 45 minutes after production of 9000 rims. Find the minimum time required to produce 36000 pairs of wheels and rims if both the machines are operated simultaneously.

- A. 180 minutes
- B. 175 minutes
- C. 220 minutes
- D. None of the above

Answer: A

Exp: The total time required by the machine producing only wheels to produce 36000 wheels = $(5 \times 6 + 30 \times 5)$ minutes = 180 minutes.

The total time required by the machine producing rims to produce 36000 rims = $(10 \times 4 + 45 \times 3)$ minutes = 175 minutes.

Thus, the total time required will be 180 minutes as both the machines are operating simultaneously.

Q59. A merchant mixes two varieties of rice costing Rs. 80/kg and Rs. 100/kg. If the quantity of first variety of rice was 60 kg and the overall profit after selling both the variety of rice at Rs. 115/kg was 25%, then find the quantity of second variety of rice.

- A. 60 kg
- B. 90 kg
- C. 92 kg
- D. 115 kg

Answer: B

Exp: If by selling both the variety of rice at Rs. 115/kg, there was a profit of 25%, it means the overall cost price was Rs. $(115 \times 100)/125$ per kg = Rs. 92/kg. Therefore, the ratio of the quantity of rice costing Rs. 80/kg and Rs. 100/kg was 8 : 12, i.e. 2 : 3. If the quantity of Rs. 80/kg rice was 60 kg, then the quantity of Rs. 100/kg rice will be $60 \times 3/2$ kg = 90 kg.

Q60. In a game between A, B and C, A finished 30 points ahead of B and 50 points ahead of C while B finished 25 points ahead of C. Find the number of points in the game?

- A. 100 points
- B. 120 points
- C. 150 points
- D. 180 points

Answer: C

Exp: Let the number of points be x in the game. Then, when A makes x points, B makes $(x - 30)$ points while C makes $(x - 50)$ points and when B makes x points, C makes $(x - 25)$ points.

Therefore, $\frac{x-30}{x-50} = \frac{x}{x-25} \Rightarrow x = 150$ points.

Paragraph: DIRECTIONS for Questions 61 to 64 (4 items)- Read the passage given below and answer the questions that follow: **PASSAGE 5-** Australia's decision to preliminarily block Chinese and Hong Kong bidders from taking a controlling stake in Ausgrid, the country's largest Australia network, over national security concerns, is likely to be met with outrage and indignation in China. The Chinese don't like being snubbed. And this is starting to look like a recurring pattern. Australia's move comes as the UK has postponed approval for the

Hinkley point nuclear power project, in which China's General Nuclear Power Corp will have a minority stake, on similar concerns. CGN is also accused of leading a conspiracy to steal American power industry secrets to speed up the development and production of Chinese reactor technology. Szuhsiung Ho, a senior adviser to CGN, is due in court in the US next week, and is accused of recruiting American experts to obtain sensitive nuclear technology for China, in a plot that prosecutors say threatened US security. But the UK's snub has already had serious consequences - verbally at least. Writing in the Financial Times, China's ambassador to the UK, Liu Xiaming has said the delay to approving the plant had brought the two countries to a "crucial historical juncture." He hinted that "mutual trust" could be in jeopardy if the UK government decided not to approve the deal. There's been no official comment yet about the blocking of the Australian deal from China's State Grid Corp. But it is a state owned enterprise, and this may be seen as an affront to China's global ambitions, or viewed as yet another attempt to cast doubt on China's motivations in the international business arena.

PQ61. According to the passage, what led to the situation of "crucial historical juncture" between the UK and China?

- A. The delay of the Hinkley Point nuclear power project.
- B. Australia's rejection of Chinese bidders.
- C. Blocking of the Australian deal from China's State Grid Corp.
- D. None of the above.

Answer: A

Exp: The delay in approval of the Hinkley point nuclear power project by the UK has been called as a snub to China which has not gone down well with China. This incident has been termed as "crucial historical juncture" by China. This validates option (a).

China's statement was on its relation with the UK and not Australia. So, eliminate options (b) and (c).

Hence, the correct answer is option a.

PQ62. According to the passage, which of the following statements is/are correct?

1. Owing to national security issues, the UK has delayed the approval of the Hinkley point nuclear power project.
2. Australia's rejection of Chinese bidders justifies the spiteful intentions of Chinese diplomats in international business.
3. Australia's action is likely to have a connection with UK's decision to delay the Hinkley project.

Select the correct answer from the codes given below:

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

Answer: B

Exp: Statements 1 and 3 can be inferred from "Australia's move... similar concerns."

Statement 2 cannot be inferred as it arrives at a conclusion without sufficient evidence. The actions of Australia and the UK can be said to be the results of their apprehensions about Chinese officials but it cannot be verified from the passage that they were right.

Hence, the correct answer is option b.

PQ63. In the statement, "And this is starting to look like a recurring pattern." What has been called as the "recurring pattern"?

- A. Western countries doubting China's intentions in international business.
- B. Western countries rejecting China's deals over a period of time.
- C. China's dislike towards the snubbing meted out by other countries.
- D. Australia's rejection of Chinese bidders.

Answer: B

Exp: The passage first states the Australia's rejection of Chinese bidders and then says that the move came after the UK delayed the Hinkley deal which antagonized China. This indicates that western countries have been shying away from inking deals with China. Thus, option (b) is vindicated.

China's intentions being doubted is not an action that can be constructed into a pattern and it is the action of shying away from inking of deals which is referred to as the recurring pattern in the passage. So, eliminate option (a).

Options (c) and (d) are not valid answers to the question asked.

Hence, the correct answer is option b.

PQ64. What can be said about CGN from the above passage?

1. Britain's Chinese partner in the Hinkley Point power station deal is facing nuclear espionage charges in the United States.

2. UK is delaying the Hinkley deal only because of CGN's involvement in it.

Select the correct answer from the codes given below:

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Answer: C

Exp: Statement 1 can be inferred from "CGN is also accused of leading threatened US security." Statement 2 can be inferred from the facts provided in the passage as it states that it was the intentions of China's General Nuclear Power Corp which were being doubted by the UK. Hence, its involvement in the project made them back out of it.

Hence, the correct answer is option c.

Paragraph: DIRECTIONS for Questions 65 to 66 (2 items)- Each question contains six statements followed by four sets of combinations. Choose the set in which the first two statements logically lead to the third as a conclusion.

PQ65.

1. All who are sincere are graduates.

2. Some graduates are not sincere.

3. All who are sincere are dull.

4. All graduates are dull.

5. Some who are dull are graduates.

6. Some of those who are dull are sincere.

Choose the set in which the first two statements logically lead to the third as a conclusion.

A. 2,4,5

B. 1,4,6

C. 1,2,6

D. 1,3,4

Answer: B

Exp: None

PQ66.

1. Iran and Iraq are members of the UN.

2. Iran and Iraq are not friends.

3. Iran and Iraq are neighbours.

4. Some UN members are friends.

5. Not all members of the UN are friends.

6. All neighbours are not friends.

Choose the set in which the first two statements logically lead to the third as a conclusion.

- A. 1,2,5
- B. 1,2,4
- C. 3,4,6
- D. 1,5,2

Answer: A

Exp: None

Q67. After years of doing little to tackle the silent but potentially deadly proliferation of antibiotic-resistant bacteria in India, all hell broke loose in 2008, when New Delhi was tacked onto the name of a one such bug. The New Delhi Metallo-beta-lactamase-1 was an enzyme that rendered bacteria resistant to a broad spectrum of antibiotics. A strain of the NDM1 had crossed the shores and spread resistance in the U.K. as well. Despite its outrage over being associated with a resistant bug, the nation sat up to the danger of anti-microbial resistance within its boundaries, and is beginning to understand the disastrous societal consequences of rendering certain life-saving drugs impotent.

What is the most crucial issue discussed in the above passage?

- A. An antibiotic-resistant bacterial bug named after a city in India.
- B. Anti-microbial resistance spreading its wings in India.
- C. New Delhi Metallo-beta-lactamase-1 spreading from India to UK.
- D. India being the home to the epidemic of antibiotic-resistant bacteria spreading into the world.

Answer: B

Exp: The passage indicates that though a bug getting named after Delhi was sad, the danger of antimicrobial resistance spreading its wings within India's boundaries is threatening. Thus, between options (a) and (b), option (b) stands out.

Option (c) is partly related to the crucial issue in the passage and does not express the main issue completely.

Option (d) is factually incorrect as only 1 bacteria has spread from India and the extreme nature of option (d) is not necessarily corroborated by the passage. Hence, the correct answer is option b.

Q68. Life is a state of continuous struggle between ourselves and everything outside. It is, for instance, continuous struggle for food and air. If food or air fails, we die. Life is not a simple and smoothly flowing thing, but it is a compound effect. This complex struggle between something inside and the external world is what we call life.

Which of the following can be inferred from the above passage?

- A. The struggle between internal and external worlds should be kept going to sustain happiness in life.
- B. One should not expect eternal security from life.
- C. Life is not simple but is full of ups and downs.
- D. When the struggle between us and the external environment ends, we will die.

Answer: D

Exp: The elements of "happiness" and "eternal security" cannot be corroborated from the passage. So, eliminate options (a) and (b).

Although it is true that life is not simple, the passage does not mention it being full of ups and downs. So, eliminate option (c).

According to the passage, the struggle between ourselves and the external world is called life and so we can infer that if this struggle between the two ends, then life ends too.

Hence, the correct answer is option d.

Q69. In April this year, the Union Ministry of Home Affairs constituted a Committee to Strengthen Border Protection (CSBP) with a mandate "to study all types of gaps in fencing and all other vulnerabilities on Indo- Pakistan Border and to suggest comprehensive approach to fix these gaps in fencing and other vulnerabilities on interim and permanent basis". The committee, which has since made a number of field trips to various parts of

India's border with Pakistan (from Jammu and Kashmir to Gujarat), is expected to give its recommendations to the government anytime soon.

Which among the following is the least rational and critical inference that can be made from the above passage?

- A. India-Pakistan border is probably porous.
- B. Pakistan border is sensitive from the point of view of Indian authorities.
- C. India is more concerned about the Pakistan border than Pakistan is about its India border.
- D. India is contemplating mitigation of vulnerabilities in border fencing along India-Pakistan border on both short term and long term basis.

Answer: C

Exp: Per the passage, India is thinking of filling the gaps in fencing and other vulnerabilities on Pakistan border. This clearly indicates India's apprehensions about the border not being 100% sealed. Hence, option (a) is a valid inference.

Option (b) also is a valid inference as India is strengthening its Pakistan border in a preventive manner indicating its sensitiveness.

Option (d) is a valid inference as the committee will be suggesting ways of fixing vulnerabilities on interim and permanent basis.

As the passage only talks about an Indian viewpoint, Pakistan's viewpoint cannot be inferred from the passage and thus option (c) is not a valid inference. Hence, the correct answer is option c.

Q70. Consider the following statements:

- 1. Nothing but books can give you intelligence.
- 2. Intelligent individuals are the only ones who possess innovation.
- 3. If a country is developed, it has innovation.

Which of the following conclusions can be drawn from the above statements?

- A. There is no innovation in countries that are not developed.
- B. Some people who read books are innovative.
- C. All intelligent individuals are innovative.
- D. None of these.

Answer: B

Exp: None

Q71. How many litres of wine should be added to a 84 litre mixture of wine and water containing wine and water in the ratio of 3 : 4 such that the resultant mixture has 60% wine in it?

- A. 36 litres
- B. 48 litres
- C. 60 litres
- D. 24 litres

Answer: A

Exp: The initial quantity of wine in the mixture was $\frac{3}{7} \times 84$ litre = 36 litre.

The initial quantity of water in the mixture was $\frac{4}{7} \times 84$ litre = 48 litre.

Let the quantity of wine added be x litre. Then, $(36 + x) = 60\%$ of $(84 + x)$

After solving it, we get $x = 36$ litres.

Q72. Three gold biscuits of weight 3900gm, 4200gm and 4800gm are cut into small biscuit pieces, all of which have equal weight. Each small biscuit piece must be as heavy as possible. If one small biscuit piece is to be shared by five persons, then how many persons will share all the small biscuit pieces?

- A. 300
- B. 43
- C. 60
- D. 215

Answer: D

Exp: The maximum size of each small biscuits can be the HCF of 3900, 4200, 4800 = 300gm. Then, the total number of biscuits that can be formed = $(3900 + 4200 + 4800)/300 = 43$. If each biscuit can be shared by five persons, then the total number of persons in which all the biscuits can be shared = $43 \times 5 = 215$.

Q73. Find the remainder when a 40 digit number $N = 12345678910111213\dots$ is divided by 16.

- A. 0
- B. 8
- C. 10
- D. 6

Answer: C

Exp: The divisibility rule for 16 is that whatever remainder we get on dividing the last four digits of a number, same remainder we get on dividing the complete number by 16. Thus, our target is to find out the last four digits of N. From 1 to 9, each number gives us one digit but from 10 onwards each number gives us two digits. So, after the calculation the last four digits of N we get as 3242. On dividing 3242 by 16, we get 10 as the remainder. Therefore, the overall remainder also is 10.

Q74. Three friends A, B and C entered into a business by investing Rs. 2,50,000, Rs. 3,50,000 and Rs. 7,50,000 for different time periods. If A invested for 12 months and A, B and C received the profit of Rs. 2,00,000, Rs. 1,40,000 and Rs. 2,00,000 respectively at the end of the year, then find out the time period for which B and C invested their money respectively.

- A. 8 months, 4 months
- B. 8 months, 6 months
- C. 4 months, 6 months
- D. 6 months, 4 months

Answer: D

Exp: The profit received not only depends on the sum invested but also on the time period for which it is invested. Let B and C invested their sum for a and b months respectively. Then, $(250000 \times 12) : (350000 \times a) : (750000 \times b) = 200000 : 140000 : 200000$
After solving, we get a as 6 months and b as 4 months.

Q75. The sum of LCM and HCF of two numbers is 14 times more than their HCF while the difference of LCM and HCF is 140. If one of the numbers is 50, then find the other number.

- A. 20
- B. 30
- C. 10
- D. 150

Answer: B

Exp: Let the HCF of two numbers be x. Then, the LCM becomes $15x$ (14 times more).

Given that $15x - x = 14x = 140$, on solving, we get $x = 10$.

Therefore, the HCF is 10 and LCM is 150.

For any two numbers we know that the product of the two numbers is equal to the product of their HCF and LCM.

If other number is a, then

$$50 \times a = 10 \times 150$$

$$a = 30.$$

Q76. Two brothers Abhishek and Avinash start running around a circular track of length 600 metres from the same point, simultaneously and in the same direction. If Abhishek runs faster than Avinash and he meets exactly after 3 km with Avinash for the second time then find how many rounds would have Avinash completed when Abhishek will meet him for the fourth time?

- A. 3 rounds
- B. 6 rounds
- C. 10 rounds
- D. Cannot be determined

Answer: B

Exp: If Abhishek runs faster than Avinash and Abhishek meets him exactly after 3 km for the second time then it means first time Abhishek would have met him after 1.5 km, it means Abhishek would have completed 2.5 rounds and Avinash would have completed 1.5 rounds. Therefore, Abhishek will meet Avinash for the fourth time when he would have completed (2.5 × 4) rounds, i.e. 10 rounds and Avinash would have completed (1.5 × 4) rounds, i.e. 6 rounds.

Q77. At what time between 4:00 and 4:30 are the hour hand and minute hand at right angle to each other?

- A. 4 hours $21 \frac{9}{11}$ minutes
- B. 4 hours $16 \frac{4}{11}$ minutes
- C. 4 hours 20 minutes
- D. 4 hours $27 \frac{3}{11}$ minutes

Answer: A

Exp: Between 4:00 and 4:30, hour hand and minute hand will be at right angle around 4:20, i.e. exactly at $20 \times \frac{12}{11}$ minutes past 4, i.e. $21 \frac{9}{11}$ minutes past 4.

Q78. In countries such as Thailand, Malaysia, Singapore and Dubai, tourism is not about staying in big hotels or resorts and swimming or playing games. Though the countries offer good hotel facilities for stay, they ensure that visitors move out and enjoy whatever natural and 'created' tourist attractions they can provide. The writer wants to say that:

- A. In most countries, tourism is being marketed as posh stay arrangements.
- B. In most of the other countries, the tourist locations are contrived.
- C. South-Asian countries are adept in promoting tourism.
- D. Financially backward countries are completely dependent on tourism.

Answer: A

Exp: By highlighting the strategy of promoting tourism in these countries, the author is pointing towards the absence of such strategies in other countries. Thus, option (a) can be inferred.

Option (b) is incorrect as the passage also mentions "created" tourist attractions" which indicates that even the stated countries have contrived locations.

Option (c) emphasizes on South-Asian countries which is only used as an example in the passage and the writer's focus is not necessarily on South Asia specifically and thus it is a weak inference.

Option (d) is not corroborated by the passage.

Hence, the correct answer is option a.

Q79. For the statement: "Four-wheelers cause more traffic congestion than three-wheelers, and two-wheelers cause less traffic congestion than four-wheelers", which of the following conclusions can we draw?

- A. There are more cars on the road than auto-rickshaws.
- B. Motorcyclists are better followers of traffic rules than car drivers.
- C. Motorcyclists are more skilled than either car or auto-rickshaw drivers.
- D. None of these.

Answer: D

Exp: Option (a) cannot be concluded as just because the statement mentions that four-wheelers cause more traffic congestion, we cannot infer anything about the number of these vehicles on road as traffic congestion can be caused due to various reasons including possibly the size difference between three-wheelers & four wheelers.

Option (b) cannot be concluded as we cannot say anything about the motorcyclists following the traffic rules. Option (c) cannot be concluded as there could be other causes of traffic congestion that go beyond the skills of the drivers.

Hence, the correct answer is option d.

Q80. The link between peace and development seems obvious – war and the arms trade divert money from schools, hospitals and more, and can destroy years of development in a single blast. Conflict dissuades businesses from investing and diverts development funds to caring for displaced people. The assumption in the above passage is that:

A. Peace is a prerequisite for development.

B. Peace and development are interdependent.

C. Peace, business and development form a virtuous cycle.

D. None of the above.

Answer: A

Exp: The paragraph makes it clear that if there is no peace, then all the resources that should have gone into development get exhausted in the activities of war. Therefore, peace is required for development to take place. This vindicates option (a) as the correct answer.

Option (b) is incorrect as the passage only says that development is dependent on peace and not that peace is dependent on development.

Option (c) is incorrect as “business” and “development”, in the context of the passage, are the same thing.

Hence, the correct answer is option a.

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