

Answer & Explanation for CSAT Comprehensive Test-1 held on 14th May 2017

Paragraph: DIRECTIONS for Question 1 to 3 (3 item)- Read the passage given below and answer the questions that follow: PASSAGE 1- The mangrove-dominated Ganges Delta – the Sundarbans – is a complex ecosystem comprising one of the three largest single tracts of mangrove forests of the world. Rivers in the Sundarbans are meeting places of salt water and freshwater. Thus, it is a region of transition between the freshwater of the rivers originating from the Ganges and the saline water of the Bay of Bengal. The Sundarbans along the Bay of Bengal has evolved over the millennia through natural deposition of upstream sediments accompanied by intertidal segregation. There are also marginal marshes above mean tide level, tidal sandbars and islands with their networks of tidal channels, subaqueous distal bars and proto-delta clays and silt sediments. Biotic factors here play a significant role in physical coastal evolution, and for wildlife a variety of habitats have developed. The mangrove vegetation itself assists in the formation of new landmass and the intertidal vegetation plays a significant role in swamp morphology. The activities of mangrove fauna in the intertidal mudflats develop micro morphological features that trap and hold sediments to create a substratum for mangrove seeds. The Sunderbans mudflats are found at the estuary and on the deltaic islands where low velocity of river and tidal current occurs.

PQ1. The Sunderbans is referred to as a region of transition due to

- A. the presence of varied flora and fauna in this area.
- B. intertidal vegetation playing a major role in swamp morphology.
- C. its rivers, which are the point of convergence between river and saline waters.
- D. marginal marshes above mean tidal level, which are a common occurrence in the region.

Answer: C

Exp: The factors represented in options (a), (b) and (d) have nothing to do with the Sunderbans being referred to as a zone of transition.

Option (c) can be vindicated from - "Rivers in the Sundarbans are meeting places of salt water and freshwater."

Hence, the correct answer is option c.

PQ2. According to the passage, which of the following is/are characteristics of the Sunderbans?

- 1. It is facilitative to the development of wildlife habitats.
- 2. It cannot uphold sediments to create a substratum for mangrove seeds.
- 3. It has constantly evolved across the millennia.
- 4. Its Mangrove vegetation inhibits the formation of new landmass.

Select the correct answer using the code given below:

- A. 1 and 3 only
- B. 1, 3 and 4 only
- C. 2 only
- D. 2 and 4 only

Answer: A

Exp: Statement 1 can be inferred from "Biotic factors here play a significant role in physical coastal evolution, and for wildlife a variety of habitats have developed."

Statement 2 contradicts the following extract from the passage - "the activities of mangrove fauna in the intertidal mudflats develop micromorphological features that trap and hold sediments to create a substratum for mangrove seeds." This eliminates options (c) and (d).

Statement 3 can be validated from "The Sundarbans along the Bay of Bengal has evolved over the millennia through natural deposition of upstream sediments accompanied by intertidal segregation."

Statement 4 contradicts the following extract from the passage - "The mangrove vegetation itself assists in the formation of new landmass..." This eliminates option (b).

Thus, only statements 1 and 3 represent characteristics of the Sunderbans.

Hence, the correct answer is option a.

PQ3. With regard to the Sunderbans, the central focus of the passage is based upon

- A. Its deltaic formations
- B. Its physiography

- C. The function of biotic factors in the region
- D. Details on river and tidal currents prevalent in it.

Answer: B

Exp: The entire passage goes on to describe the physical geography of the Sunderbans and its constituents. Only option (b) fits the bill as the central focus. The other options are part of its physiography.

Hence, the correct answer is option b.

Q4. The international climate negotiations that are expected to culminate in an agreement at the United Nations Climate Change Conference in Paris in November and December have been hampered by the requirement of consensus among the 195 countries participating. If action is not taken, billions of people will suffer the consequences of drought, crop failure, and extreme weather. Which is the *logical inference* that can be made from the above passage?

- A. Non-consenting countries do not realize the full impact of global warming in the long run.
- B. Dissenting countries are aware that they are safe from the disastrous effects of global warming.
- C. The proposed climate agreement cannot be put into force unless all the participating countries agree to it.
- D. United Nations has given up trying to convince all the participating countries to agree to the proposal.

Answer: C

Exp: The passage does not mention anything about the United Nations giving up on the negotiations. Thus, option d can be eliminated easily.

The fact that this matter has been taken up by the United Nations (a highly responsible international body), makes it highly absurd to infer that the full impact of the impending calamity would not have been explained to all participating countries. If they still refuse to consent, the reason for this is not lack of awareness. Thus, both options a and b can be ruled out.

Only option c can be inferred from the latter part of the first sentence – ‘... have been hampered...’.

Hence, the correct answer is option c.

Q5. At one time, when agricultural markets were underdeveloped, intermediaries played an important role in price discovery by matching buyers with sellers. Over time, as demand for agricultural output has grown, these intermediaries have turned into no more than special interests, skimming off a significant portion of the returns that should justly accrue to the farmers. If one has to look at the reason for India’s underdeveloped farm markets, one need not look far: their political heft has ensured that no worthwhile market reforms occur in the states.

Which one of the following statements is *most essential* as a part of the argument in the above passage?

- A. Intermediaries have a role to play in setting the price.
- B. Farmers do not get the right value for their produce.
- C. Influencers in the market do not allow reforms.
- D. Clout of the intermediaries has increased with time.

Answer: C

Exp: All the issues stated in the passage can be addressed with effective market reforms. But, according to the passage, ‘political heft’ i.e. influential people do not allow market reforms to take place. Thus, among all the given options, option c is the most essential part of the argument.

Hence, the correct answer is option c.

Q6. Many households in unelectrified hamlets, especially in Bihar and Uttar Pradesh, are served by diesel generators or solar micro-grids and home systems. These households pay a higher price on per kWh basis. While the Electricity Act 2003 allows off-grid models without licenses, the sector is still hindered by non-uniform technical approaches, undeveloped non-technical processes and poor access to sufficient long-term low-cost capital to scale up. Subsidised kerosene is another hurdle. The segment can scale up only when services are offered at or below the cost of kerosene. Another important aspect is to improve the governance in discoms, especially in metering, billing and collection (MBC) practices. While many franchisees improved revenue collection and reduced distribution losses, the scheme was not implemented properly by many discoms. There appeared to

be no clear understanding of the concept and franchisee's role. The government should reactivate the franchisee scheme by involving youths, who could be trained under the Skill India mission. Banks can provide them initial capital under the Start-up India programme. Franchisees will streamline MBC practices and generate employment involving youths, who could be trained under the Skill India mission. Banks can provide them initial capital under the Start-up India programme. Franchisees will streamline MBC practices and generate employment.

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

- A. The government is finding it difficult to implement metering, billing and collection practices in Bihar and Uttar Pradesh.
- B. The franchise program was discontinued due to a lack of trained manpower and availability of capital to start a franchise.
- C. Amongst all sources of electricity, kerosene is popular in Bihar and Uttar Pradesh as it is the cheapest source.
- D. There is a need to revise the Electricity Act 2003 and bring off-grid models without licenses under the purview of the Act.

Answer: B

Exp: Option d is not at all suggested by the passage. It can be ruled out immediately. Among options a, b, and c, all of which are valid and rational inferences based on the information given in the passage, option 2 which talks about the franchise program is the most critical because had the franchise program been successful it would have become easier for the government to tackle the other problems. The reason that is stated for its discontinuance also highlights how government programs are suffering due to shortage of trained manpower and adequate capital.

Hence, the correct answer is option b.

Q7. There are eight teams participating in the IPL-2017. In the league stage, each team will have to play twice with every other team and the winning team will get points. The top four teams of the league stage will enter into the play-off round. In the playoffs, the first ranked team will play with the second ranked team. The winner of this match will enter the final. The loser of this match will again get a chance to play with the winner of the match between the third ranked team and the fourth ranked team. The winner of this game will be the second team to enter the final. Find out how many matches will be played in total in the IPL-2017 until the final match.

- A. 59
- B. 56
- C. 60
- D. None of the above

Answer: C

Exp: Total matches in round up game = $14 + 12 + 10 + 8 + 6 + 4 + 2 = 56$

Number of matches in playoff rounds = $1 + 1 + 1 = 3$

Number of final match = 1

\therefore Total number of matches played in the IPL 2017 = $56 + 3 + 1 = 60$

Paragraph: DIRECTIONS for Question 8 to 10 (3 item)- Read the following information carefully and answer the questions, which follow: P, Q, R, S, T and V live on different floors of the same building having six floors numbered one to six (the ground floor is numbered 1, the floor above it is numbered 2 and so on and the top most floor is numbered 6).

There are two floors between the floors on which Q and V live. Q lives on a floor below V's floor. Neither P nor T lives on a floor immediately above or immediately below the floor on which Q lives. P does not live on an odd-numbered floor. There is only one floor between the floors on which S and T live. T does not live on a floor immediately above or immediately below the floor on which R lives.

PQ8. On which of the following floors does V live?

- A. 1
- B. 2
- C. 4

D. None of the above

Answer: C

Exp: None

PQ9. Who among the following live on the topmost floor i.e. floor number 6?

A. S

B. T

C. P

D. None of the above

Answer: C

Exp: None

PQ10. How many floors are there between the floors on which R and T live?

A. 3

B. 4

C. 2

D. None of the above

Answer: C

Exp:

Floor	Person
6	P
5	T
4	V
3	S
2	R
1	Q

Paragraph: DIRECTIONS for Question 11 to 13 (1 item)- Read the following information carefully and answer the questions which follow: A, B, C, D, E, F, G and H are eight friends sitting around a Circular table facing towards the Centre (Not necessarily in the same order). They like exactly one of the following subjects viz. English, Hindi, History, Geography, Physics, Chemistry, Biology and Mathematics (not necessarily in the same order). The following points are known about their seating arrangements: (1) A sits opposite to the person who likes History. (2) The person who likes Chemistry sits immediate right of E. (3) G is adjacent to D and the person who likes Physics. (4) H is to the left of A and likes English. (5) B sits to immediate left of the person who likes History and is adjacent to G who likes Hindi. (6) C is sitting exactly opposite D and is adjacent to F who likes Geography. (7) H does not sit next to someone who likes Biology or Hindi.

PQ11. Which subject does A like?

A. English

B. Hindi

C. Mathematics

D. Physics

Answer: C

Exp: None

PQ12. Who among the following person likes Physics?

A. A

B. B

C. C

D. D

Answer: B

Exp: None

PQ13. How many people are sitting between H and G, when counted clockwise (starting from H)?

- A. Zero
- B. Four
- C. Three
- D. Two

Answer: B

Exp: A – Mathematics

B – Physics

C – Chemistry

D – Biology

E – History

F – Geography

G – Hindi

H – English

Q14. Kundan is driving his car at 125% of normal speed and reaches railway platform 15 minutes earlier than his normal time. Had he driven his car at normal speed, what time he would have taken to reach the railway platform?

- A. 60 minutes
- B. 45 minutes
- C. 75 minutes
- D. 90 minutes

Answer: C

Exp: Let normal time taken be t minutes.

$$125\% \text{ of normal speed} = \frac{125}{100} = \frac{5}{4}$$

$$\text{Since speed} \times \frac{1}{\text{time}}$$

$$\therefore t - \frac{4}{5}t = 15$$

$$\therefore t = 75 \text{ minutes.}$$

Q15. Three students are picked at random from a school having 5000 students. What is the probability that these three students will have identical date and months of their birth?

- A. 3/5000
- B. 3/365
- C. $\frac{1}{(365)^2}$
- D. None of the above

Answer: C

Exp: First student can have any day as his date of birth.

According to the question corresponding to the first person, 2nd and 3rd persons need to have same day as their birthday. Thus probability that they have identical date and month of their birth is, 1 x

$$\frac{1}{365} \times \frac{1}{365} = \frac{1}{(365)^2}$$

Q16. Consider the following statements:

1. Countries with young population grow faster.
2. India has the youngest population in the world.
3. Among all countries, the growth rate of Japan is the lowest.

From the above statements, it may be concluded that:

- A. India is growing at a faster rate than Japan
- B. US and India have a similar population split.
- C. There are no young people in Japan.
- D. It is difficult for old people to work longer hours.

Answer: A

Exp: Option d does not directly relate to any of the statements. It can be ruled out immediately.

Option c is very extreme. It is possible that Japan has less number of young people as compared to the other countries and so its growth rate is lower; "no young people" is absurd. Thus, option c can be eliminated.

None of the statements give any information about US, so we cannot conclude option b.

Option a can be concluded by considering the information given in all the three statements.

Hence, the correct answer is option a.

Q17. A combination of dismal living conditions and low wages has kept tea workers and their families malnourished and in poor health. The Director of Assam Medical College told BBC and Radio 4 "nine out of 10 patients" from tea plantations were malnourished. Their being condemned to unhygienic living made them prone to diseases like diarrhoea, TB, meningitis and skin lesions. The industry is also exposed to criticism for some children below the age of 15 years, the United Nations ordained child labour cut-off point, working full time in estates supplying tea to some English iconic brands. Failure of gardens to ensure that workers put on protective gear and overalls every time they spray chemicals on bushes make them vulnerable to "serious side effects from chemical exposure." Earlier, Human Rights Institute of Columbia Law School found "abusive conditions" throughout the Indian tea industry.

Which one of the following is the *most logical inference* from the above passage?

- A. Indian Tea industry does not follow the global tea industry's norms of doing business.
- B. The Indian Tea industry has violated basic human rights rules and regulations.
- C. The tea workers are not aware of the best practices in tea gardening.
- D. English tea brands are responsible for the plight of the tea workers.

Answer: B

Exp: Global norms for tea industry are not stated in the passage, thus option a cannot be inferred.

Similarly, there is no mention of best practices, thus option c also cannot be inferred.

The passage merely states that the tea is provided to iconic English brands, but this in no way leads to the inference that these brands are responsible for the plight of the workers. So, option d can also be eliminated.

Only option b can be inferred from the information given in the passage.

Hence, the correct answer is option b.

Q18. "Darkness cannot drive out darkness: only light can do that. Hate cannot drive out hate: only love can do that."

Which one of the following expresses the view implied in the above statement?

- A. Love and light are more powerful than darkness and hate.
- B. Light and love are important elements in life.
- C. A positive force is required to overcome a negative force.
- D. Darkness and hate always accompany love and light.

Answer: C

Exp: Option d is absurd and can be eliminated immediately.

By using examples of two pairs of positive and negative forces, the statement conveys the message that any negative force in life can be overcome by something positive. This is best explained by option c.

Hence, the correct answer is option c.

Q19. With India aspiring to be a 'knowledge economy' and a global power, it must also use health research and innovation to improve people's lives at home and overseas. Some key partnerships to build capacity, support health research and promote innovation have developed between international funders and either Africa or India. These African and Indian programmes should learn from each other and together build sustainable science based partnerships.

Which of the following cannot be inferred from the passage?

- A. Science and technology is seen as the centrepiece of development.
- B. Both India and Africa seem to face similar challenges in health-care.
- C. India and Africa need to work together to help build each other's economy.
- D. None of the above

Answer: D

Exp: Option (a) can be inferred as the first sentence says that if India wants to become a global power it should use innovation to improve its people's lives.

Option (b) can be inferred as India and Africa have partnerships with other countries to build their health research.

Option (c) cannot be inferred as nothing can be said about Africa's overall economy as the passage only says that India and Africa need to work on innovation and health-sector.

Hence, the correct answer is option d.

Paragraph: DIRECTIONS for Question 20 to 21 (2 item)- Read the passage given below and answer the questions that follow: **PASSAGE 2-** India has a poor record in protecting its digital data. This is because Internet security is still seen by government and businesses as an expenditure and not investment in future prosperity.

According to South Asian Association for Regional Cooperation, Internet security expenditure comprises 2-5% of India's total IT budget. The same figure for developed countries is 8-10%. This means that India fails to attract the best people and innovation takes a backseat. India aspires to be a global power, a global force in computer software and hardware developments, a hub for advanced manufacturing systems. Sadly, these aspirations cannot be realised unless both the Indian government and India Inc. appreciate the significance of installing and maintaining an upto-date and state-of-the-art Internet security infrastructure.

PQ20. According to the passage, India's dream of becoming a global force in computer software and hardware developments is farfetched. Why?

A. Indian government is close-fisted when it comes to investing in internet security.

B. Installation and maintenance of security softwares are difficult tasks for India.

C. Other countries are far ahead in inventing unhackable softwares.

D. There is dissonance between the Indian government and India Inc.

Answer: A

Exp: The passage says that Indian government does not recognize the importance of investing in Internet security. However, it does have a considerable IT budget.

Option (c) cannot be corroborated from the passage.

Option (d) is incorrect as the passage does not comment on the relationship between the two.

Hence, the correct answer is option a.

PQ21. Consider the following statements:

Internet security expenditure forms a minor share in India's total IT budget, hence:

1. India is likely to miss out on a large set of employable talent.

2. Innovation is lagging due to shortage of investments in R&D.

3. India needs to step up its efforts to ensure maximum investment flow in IT.

Select the correct answer using the code given below:

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

Answer: B

Exp: Statements 1 and 2 can be inferred from "This means that India fails to attract the best people and innovation takes a backseat."

Statement 3 is incorrect as nothing about investment flow has been mentioned in the passage.

Hence, the correct answer is option b.

Q22. The most important questions that people ask today are invariably on their health or the direction of their life. Those in their early years focus on building a career whereas those in their senior years reflect upon how they led their lives. Very seldom do you find people who consciously go about defining or constructing their lives by balancing their necessities with a controlled and sustained ambition.

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

- A. Following a balanced lifestyle will help one improve health and find their calling in life.
- B. Reflecting upon past decisions can help find the right direction and better career opportunities.
- C. People should have a complete control over their health and their lives to be happy and successful in life.
- D. People who want to lead a happy and healthy life should steer clear of aspirations for a stressful career.

Answer: A

Exp: The passage states that people spend their senior years in reflecting on how they lived their life, this may help find the right direction but it does not mean that this will also help them find better career opportunities. Thus, option b can be eliminated.

The idea of having or maintaining complete control over health and life is very extreme and probably impossible. Thus, option c can be ruled out.

The passage suggests having controlled and sustained ambitions. This does not mean that one should steer clear of aspiration. Thus, option d can also be eliminated.

Option a fits best with the conclusion of the passage that people rarely spend time consciously defining and constructing their lives. Thus, option a is the best answer.

Hence, the correct answer is option a.

Q23. It is the state's duty to provide houses for the citizen, which is why state corporations are set up to build houses. The right to work cannot be denied either. In each case, the private sector undertakes activities that are properly the state's concern. Even in that haven of private enterprise — the United States — the Supreme Court developed the doctrine of "businesses affected with a public interest" as far back as in 1876. Thus, the rental of houses in the city of Washington during wartime was held to be such a business. Abuses by such entities, in housing or employment, are amenable to judicial correction even in the absence of legislation.

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

- A. Private enterprises do a better job than state corporations of providing citizens with housing and employment.
- B. Providing people with housing and employment is the joint responsibility of the State Corporation and private sector.
- C. In the absence of laws, corporations get away with abusing people asking for housing and employment.
- D. State corporations in the United States do not do a good job of providing people with housing and employment.

Answer: A

Exp: United States is given as an example to show that even in such a highly privatised country, the state is responsible for looking after the housing and employment needs of its citizens. Thus, option d cannot be inferred from the passage.

The passage states that even in the 'absence of laws', abuses by entities in housing and employment are open to judicial correction. This eliminates option c.

It is clearly stated in the first sentence that it is the state's duty to provide houses and employment for the citizens. And though the private sector also does it, it is nowhere suggested in the passage that it is the private sector's responsibility to do so. Thus, option b can be eliminated.

Option a can be inferred from the third sentence of the passage.

Hence, the correct answer is option a.

Q24. *Seema*: Women are better cook than men as cooking comes naturally to women.

Veena: No. Like all other skills, cooking needs to be learned and both men and women can excel at it.

Based on Veena's statement, which one of the following best describes her?

- A. Veena does not support gender roles and believes that everyone should learn what they want to.
- B. Veena does not think cooking is difficult to learn and that's why even men can excel at it.
- C. Veena thinks since men are superior to women, they can excel at jobs that are generally considered a woman's domain.

D. Veena does not believe in stereotyping and thinks that it is one's knowledge that makes one an expert and not their gender.

Answer: D

Exp: Veena's statement does not carry any derogatory remark about either of the genders, whereas both options b and c present one of the genders in a negative light. Thus, they can be ruled out.

The first part of options a and d is almost similar, but the second part of option d which talks about expertise being dependent on knowledge and not gender, better relates to the statement made by Veena and is thus a more apt choice to describe her.

Hence, the correct answer is option d.

Q25. A worker reaches his factory 3 minutes late if his speed from his house to the factory is 5 km/hr. If he walks at a speed of 6 km/hr, then he reaches the factory 7 minutes early. What is the distance between the factory and his house?

- A. 4 km
- B. 5 km
- C. 6 km
- D. 7 km

Answer: B

Exp: Required distance = $(5 \times 6) / 1 \times 10 / 60 = 5$ km

Q26. A train completes a journey with a few stoppages in between at an average speed of 60 km/hr. If the train had not stopped anywhere, it would have completed the journey at an average speed of 75 km/hr. On an average how many minutes per hour does the train stop during the journey?

- A. 20 minutes per hour
- B. 12 minutes per hour
- C. 15 minutes per hour
- D. 18 minutes per hour

Answer: B

Exp:

$$\text{Required answer: } \frac{(75-60)}{75} = \frac{15}{75} \text{ hrs.}$$

$$= \frac{1}{5} \text{ hrs} \sim \frac{1}{5} \times 60 = 12 \text{ minutes per hour}$$

Q27. Two equal glasses filled with mixtures of milk and water in the proportions of 2:1 and 1:1 respectively were emptied into a third glass. What is the proportion of milk and water in the third glass?

- A. 3 : 4
- B. 5 : 7
- C. 7 : 5
- D. 4 : 3

Answer: C

Exp: Let the quantity of each glass be x litres.

Quantity of milk in Glass 1 = $\frac{2}{3}x$

Quantity of milk in Glass 2 = $\frac{1}{2}x$

Quantity of water in Glass 1 = $\frac{1}{3}x$

Quantity of water in Glass 2 = $\frac{1}{2}x$

∴ Ratio of milk and water is

$$\frac{\frac{2}{3}x + \frac{1}{2}x}{4x + 3x} : \frac{\frac{1}{3}x + \frac{1}{2}x}{2x + 3x}$$

$$\frac{4x + 3x}{6} : \frac{2x + 3x}{6}$$

$$= \frac{7x}{6} : \frac{5x}{6}$$

Therefore, 7 : 5

Q28. A train covers 50% of the journey at 30 km/hr, 25% of the journey at 25 km/hr and the remaining at 20 km/hr. Find the average speed of the train during the entire journey?

A.

$$23 \frac{25}{47} \text{ km/hr}$$

B.

$$11 \frac{25}{47} \text{ km/hr}$$

C.

$$25 \frac{25 \text{ km}}{47 \text{ hr}}$$

D.

$$27 \frac{25}{47} \text{ km/hr}$$

Answer: C

Exp:

$$\text{Average speed: } \frac{100}{\frac{50}{30} + \frac{25}{25} + \frac{25}{20}} = \frac{100}{\frac{47}{12}} = \frac{1200}{47} = 25 \frac{25}{47} \text{ km/hr.}$$



Q29. Which of the following symbols should replace the Question mark (?) in the given expression in order to make the expression "O ≤ K" definitely correct but "M > I" definitely wrong?

$$I < J \leq K ? M \geq N = O$$

A.

>

B.

≥

C.

<

D.

≤

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Answer: B

Exp: None

Q30. In a test a candidate secured 468 marks out of maximum marks "A". Had the maximum marks "A" converted to 700, he would have secured 336 marks. What was the maximum mark of the test?

A. 970

B. 972

C. 975

D. 900

Answer: C

Exp: Converted maximum marks = 700

Converted marks = 336

$$\% \text{ marks} = \frac{336}{700} \times 100 = 48\%$$

∴ 468 is 48% of maximum marks "A"

$$\therefore A = \frac{468}{48} \times 100 = 975$$

Q31. The area of a square is 1024 sq. cm. What is the ratio of the length to the breadth of a rectangle whose length is twice the side of the square and breadth is 12 cm less than the side of this square?

- A. 5 : 16
- B. 16 : 5
- C. 12 : 5
- D. 5 : 12

Answer: B

Exp:

$$\text{Side of the square} = \sqrt{1024 \text{ cm}^2} = 32 \text{ cm}$$

$$\text{Length of rectangle} = 32 \times 2 = 64 \text{ cm}$$

$$\text{Breadth of rectangle} = 32 - 12 = 20 \text{ cm}$$

$$\therefore \text{Required ratio} = 64:20 = 16:5$$

Q32. What will come in place of question mark (?) in the given number series? 27 38 71 126 203 (?)

- A. 212
- B. 301
- C. 302
- D. 213

Answer: C

Exp: The given series is $27 + (11 \times 1)$, $38 + (11 \times 3)$, $71 + (11 \times 5)$, $126 + (11 \times 7)$, $203 + (11 \times 9)$.

Q33. The fare of a bus is Rs. x for the first five kilometres and Rs. 13 per kilometre thereafter. If a passenger pays Rs. 2402 for a journey of 187 kilometres, what is the value of x?

- A. Rs. 32
- B. Rs. 35
- C. Rs. 36
- D. Rs. 42

Answer: C

Exp: Total distance = 187 m.

Remaining distance = $187 - 5 = 182$ kms.

$$\text{Now, } x + 182 \times 13 = 2402$$

$$= x = 2402 - 2366$$

Therefore, $x = \text{Rs. } 36$

Q34. A material of solid cone is melted into the shape of solid cylinder of equal radius. If the height of the cylinder is 5 cm, what is the height of the cone?

- A. 10 cm
- B. 30 cm
- C. 15 cm
- D. 5 cm

Answer: C

Exp: Let the radius of cone and cylinder be r cm

∴ The quantity of material is same therefore their volume will be same.

∴ Volume of solid cone = volume of solid cylinder

$$\frac{1}{3} \pi r^2 h = \pi r^2 h$$

$$\frac{1}{3} \pi \times r \times r \times h = \pi \times r \times r \times 5 \text{ (Radius of cone and cylinder are same)}$$

$$H = 5 \times 3 = 15 \text{ cm}$$

Q35. A man can row 7 km/hr in still water. If the river is running at 3 km/hr, it takes 6 hours more in upstream than to go down stream for the same distance. How far is the place?

- A. 56 km
- B. 50 km
- C. 40 km
- D. 45 km

Answer: C

Exp: Let the distance be 'd' km.

Speed in upstream = (7-3) km/hr = 4 km/hr.

Speed in downstream = (7+3) km/hr = 10 km/hr

$$\therefore \text{Time taken in upstream} = \frac{d}{4}$$

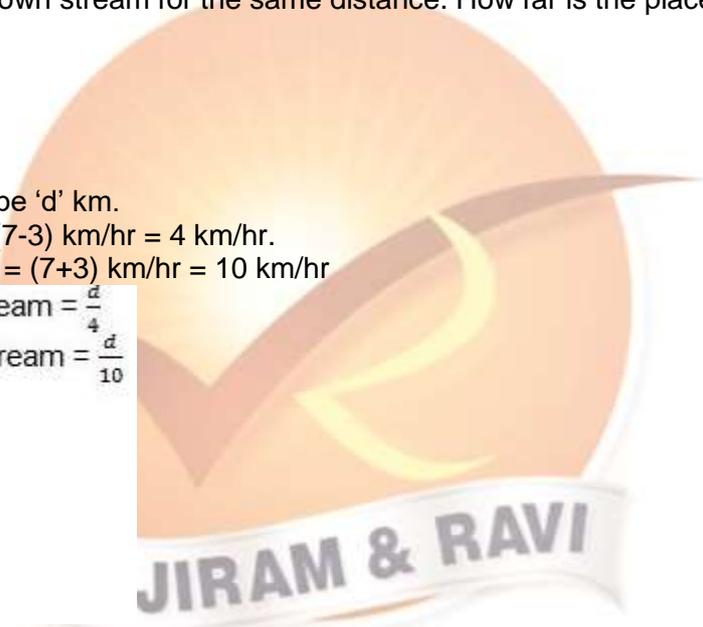
$$\text{Time taken in downstream} = \frac{d}{10}$$

$$\therefore \frac{d}{4} - \frac{d}{10} = 6$$

$$\frac{10d - 4d}{40} = 6$$

$$\frac{6d}{40} = 6$$

$$D = 40 \text{ km}$$



Paragraph: DIRECTIONS for Question 36 (1 item)- Study the following information to answer the given questions: Point P is 9 m towards the East of point Q. Point R is 5m towards the South of Point P. Point S is 3m towards the West of point R. Point T is 5m towards the North of point S. Point V is 7m towards the South of point S.

PQ36. If a person walks in a straight line for 8m towards West from point R, which of the following points would he cross first?

- A. V
- B. Q
- C. T
- D. S

Answer: D

Exp: None

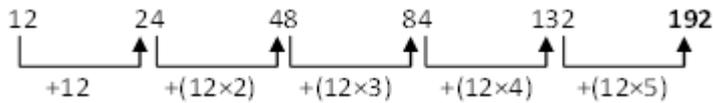
Q37. The elephant population in Karnataka is increasing year after year. Find out the elephant population in 2016 from the following information.

2011	2012	2013	2014	2015	2016
12	24	48	84	132	?

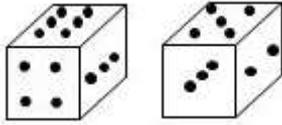
- A. 180
- B. 185
- C. 192
- D. 190

Answer: C

Exp:



Q38. Two positions of a block are shown below. When 2 is at the bottom, which number will be at the top?



- A. 1
- B. 4
- C. 6
- D. 5

Answer: C

Exp: Number 3 is common to the two positions of the block. Thus, the combined figure will have 3 on RHS face (II), 4 on the front face (I), 6 on the top face, 5 on the rear face and 2 on the bottom face. Clearly when 2 is at the bottom, 6 is at the top.

Q39. The numerator of a fraction is 4 less than its denominator. If the numerator is decreased by 2 and the denominator is increased by 1, then the denominator becomes eight times the numerator. Find the fraction.

- A. 3/7
- B. 4/8
- C. 2/7
- D. 3/8

Answer: A

Exp: If denominator of fraction = x , then numerator = $x - 4$

$$\therefore \text{Fraction} = \frac{x-4}{x}$$

Now, according to the question,

$$(x-4) - 2 = \frac{(x+1)}{8} \Rightarrow x - 6 = \frac{x+1}{8}$$

$$\Rightarrow 8x - 48 = x + 1 \Rightarrow 8x - x = 48 + 1$$

$$\therefore x = 7$$

$$\therefore \text{Fraction} = \frac{7-4}{7} = \frac{3}{7}$$

Q40. The average of 6 numbers is 37.5. If average of initial 3 numbers is 38.25 and for last two numbers is 37, then find out the fourth number.

- A. 39.25
- B. 37.5
- C. 36.25
- D. 38.25

Answer: C

Exp: None

Paragraph: DIRECTIONS for Question 41 to 43 (3 item)- Read the passage given below and answer the questions that follow: **PASSAGE 3- Coal powered America** for so many decades for one simple reason; it has historically been much more abundant and affordable than any of its competitors. Scientists have long known how to produce electricity from wind, sunlight, wood, oil, natural gas, running water, nuclear fission, shoreline waves, and many other means. Nevertheless, the energy in

coal is sufficiently concentrated and economical to extract that coal power remained substantially less expensive than its competitors (with the exception of hydro power, which is regionally limited). Throughout the past century, switching from coal to any other power source would necessarily mean burdening the American economy and American households with significantly higher energy costs. An obvious downside to coal power has been its environmental impact. People place differing subjective value on whether and to what extent energy costs or environmental impacts should be considered. Regardless of subjective values, however, coal power undeniably came at an environmental cost relative to other power sources. Coal mining decimates natural landscapes, coal miners are subjected to dangerous and unhealthy working conditions, coal power emits more pollutants than any other power source except for wood, and coal transportation presents unique environmental harms that do not apply to other power sources. American policymakers, and presumably most Americans, viewed these environmental harms as unfortunate but worth the tradeoff for lower energy prices. Lower energy prices have enabled Americans to live wealthier lives and keep more income to spend on better housing, better nutrition, better education, better healthcare, and more goods and services that make life more enjoyable.

PQ41. According to the passage, coal is not a preferable source of energy because

- A. unavailability of consumer-friendly system of coal distribution.
- B. less number of coal power plants to produce energy.
- C. the extractable reserves of coal are depleting.
- D. coal mining causes drastic alteration of landscapes.

Answer: D

Exp: The sentence from the passage, "Coal mining decimates natural landscapes,..." validates option (d).

Option (a) is contrary to the data provided in passage as it is mentioned that coal has been historically abundant.

Options (b) and (c) are not mentioned in the passage.

Hence, the correct answer is option d.

PQ42. In spite of the environmental harms caused by coal, it was a leading source of America's electricity generation. Why?

- 1. Coal came at a cheaper price compared to its competitors.
- 2. Every other non-renewable source of energy had the same issues.
- 3. America was heavily dependent on coal.

Select the correct answer using the code given below:

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

Answer: A

Exp: Statement 1 can be inferred from "American policymakers, lower energy prices."

Statement 2 is incorrect with respect to the data provided in the passage.

Statement 3 does not answer the question stem.

Hence, the correct answer is option a.

PQ43. According to the passage, which of the following cannot be said about coal power?

- A. America's reliability on coal is solely for economic reasons.
- B. The environmental consequences of coal power was unique.
- C. Extraction of coal is cheap.
- D. Coal power is no longer the leading source of America's electricity generation.

Answer: D

Exp: Option (a) can be inferred from "Throughout the.... higher energy costs."

Option (b) can be inferred from "....coal transportation presents unique environmental harms that do not apply to other power sources."

Option (c) can be inferred from the phrase "coal is sufficiently concentrated and economical to extract".

Option (d) cannot be inferred as it cannot be said that America's reliance on coal is a thing of past. Hence, the correct answer is option d.

Q44. Consider the following statements:

1. All bricks are mortars.
2. Mortars are either black or not white.
3. No mortars are sandstones.

Based on the above statements, which of the following conclusions is correct?

- A. If a brick is not black, it cannot be white.
- B. If a brick is black, it cannot be white
- C. Some sandstones are bricks
- D. No sandstones are black.

Answer: A

Exp: None

Q45. Consider the following statements:

1. No mountaineers are Sherpas.
2. All Sherpas are brave.
3. If you are brave, you can face dangers.

Based on the above statements, which of the following conclusions is correct?

- A. Ram is a mountaineer, so he can face dangers.
- B. Ram is not a mountaineer, so he cannot face dangers.
- C. Ram can face dangers, so he is brave.
- D. Ram cannot face dangers, so he is not a Sherpa.

Answer: D

Exp: None

Q46. It is a good time to be a diversity and inclusion (D&I) professional in India today -- there is a surge in awareness, interest and genuine eagerness on the part of leaders to see workplaces reflect the diversity of the country, especially by tapping into the underleveraged talents of women in India. This increased attention to D&I reflects not just global pressure to "do the right thing", but also an internal awakening about what needs to happen for organisations to retain top talent. This energy is wonderful, but it needs to be matched by action and accountability on the ground.

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

- A. Except for India, all other countries have better diversity and inclusion in the workplace.
- B. Hiring people from diverse backgrounds including women will help organizations to achieve D&I in the workplace.
- C. D&I professionals can help organizations increase diversity and inclusion in the workplace.
- D. Organizations across the globe are finding it difficult to 'do the right thing' and retaining top talent.

Answer: C

Exp: The passage talks specifically about D&I with respect to India. Although it states that there is 'global pressure' to do the right thing, it in no way can lead to the assumption that all other countries have a better D&I in the workplace. Thus, option a can be eliminated.

Option d can be eliminated for the same reason as option a; there is simply no data about organizations across the globe.

The passage is about how D&I professionals can benefit from the interest organizations are showing in increasing D&I in the workplace. This is based on the implicit assumption that D&I professionals can help increase D&I in the workplace.

Option b is more of a conclusion. Thus, it can be eliminated.

Hence, the correct answer is option c.

Q47. Active researchers and research-capable faculty are outnumbered by the others. Non-researchers could perhaps learn to do research, but this is easier said than done. The same is true of research-capable faculty: it is not easy to get back in the game after many years of missing out. Moreover, senior faculty members have no incentive to make the extra effort. The government and

higher education administrators need to abandon the idea of making researchers out of non-researchers. Research-capable faculty and non-researchers who are good teachers should be encouraged to keep doing what they are doing well. They could also be useful in administrative roles and as mentors to new faculty, leaving active researchers to get on with publishing. These are far better options than insisting that they reorient or upgrade their roles.

Which among the following is the *most critical inference* that can be made from the passage?

- A. There is a pressure on non-researchers and research-capable faculty to do research work.
- B. Indian institutes have the lowest research publications when compared to global standards.
- C. There are a lot of vacancies in the administrative roles in educational institutes in India.
- D. Most of the research-capable faculty are not good teachers and they do not contribute to research either.

Answer: A

Exp: The passage states that research-capable faculty who are good teachers should continue doing what they do best. It does not talk about ones who are not good teachers. Thus, option d cannot be inferred from the passage.

There is no information in the passage to lead to the inference in option c.

We can infer from the passage that Indian institutes are trying to increase research publications, but this is not enough to infer that Indian institutes have the lowest research publications globally. Thus, option b can be ruled out.

Option a can be inferred from both the fifth and the last sentence of the passage.

Hence, the correct answer is option a.

Q48. In Indian cities, one of the biggest blocks to any imagination of “universal” or “inclusive” development is not lack of money, land or technology as is so often imagined. It is that a large number of our fellow urban residents are not considered urban residents at all — they are not part of the “universe” to be reached. The author wants to say that:

- A. Urban dwellers do not harmoniously distribute resources among themselves.
- B. Universal access to basic services in the city is not available to poor sections of the city.
- C. The inequalities seen between the imagined ideal and all other ways of inhabiting the city are real.
- D. None of the above

Answer: B

Exp: Through the above passage the author is conveying the message that basic services provided by the city are to be utilized by all citizens of city. However, these services are not available to certain areas due to a class divide. This is best captured by option (b).

Options (a) and (c) are incomplete as they miss out on the aspect of “universal access”.

Hence, the correct answer is option b.

Q49. The price of solar power has steadily declined ever since the launch of the Jawaharlal Nehru National Solar Power Mission five years ago. From nearly Rs. 18 a unit in 2010, rates have plummeted to below Rs. 5 in the latest bids. The drop is sharp in the past few months. This is attributable partly to aggressive bidding by solar power producers and partly to improved technology and a decline in equipment prices because of intense competition in this field and subsidies elsewhere. However, for a sector which is yet to blossom, a steep fall in output prices is not an unmitigated blessing. On the upside, low tariffs impart the much-needed grid parity to renewable energy - suggesting solar power may sooner than expected offer serious competition to conventional power produced from gas or even coal. But, on the downside, they make investors nervous about the returns on their investment.

Which one of the following is a *logical conclusion* that can be drawn from the above passage?

- A. The Jawaharlal Nehru National Solar Power Mission is solely responsible for declining price of solar power.
- B. The declining price of solar power will be a great opportunity for companies looking to invest in the sector.
- C. There are only a handful of players in solar power market and price is controlled solely by them.
- D. The declining price of solar power can be considered both a pro and a con for the still emerging sector

Answer: D

Exp: Although the Jawaharlal Nehru National Solar Power Mission is a major reason for the declining prices, we can see from the passage that it is not the only reason. Intense competition and aggressive bidding by solar power producers has also played a part in bringing down the prices. Thus, option a is not a valid conclusion.

The last sentence of the passage contradicts option b. The declining price of solar power will be a great opportunity for companies looking to start using it and not for those looking to invest in the sector. Thus, option b can be ruled out.

The passage states that there is 'intense competition' in the sector. Thus, option c cannot be a logical conclusion.

Only option d can be logically concluded from the information given in the passage.

Hence, the correct answer is option d.

Q50. Given the statement: "Secondary teachers get more pay than primary teachers, and pre-primary teachers get less pay than secondary teachers", what can be concluded?

- A. Secondary teachers use more teaching aids than primary teachers.
- B. Primary teachers are under-trained compared to secondary teachers.
- C. Primary and pre-primary teachers are not qualified enough.
- D. None of these

Answer: D

Exp: Option a cannot be concluded as "teaching aids" is out of context of the statement.

Option b cannot be concluded as nothing about the training of these teachers has been stated in the statement.

Option c cannot be concluded as qualification is not mentioned.

Hence, the correct answer is option d.

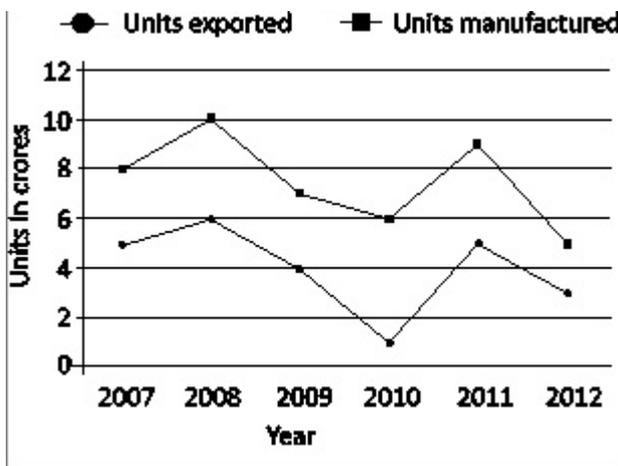
Q51. A bus starts from city X. The number of women in the bus is half of the number of men. In city Y, 10 men leave the bus and 5 women enter. Now, the number of men and women is equal. In the beginning, how many passengers entered the bus?

- A. 19
- B. 36
- C. 41
- D. 45

Answer: D

Exp: None

Paragraph: DIRECTIONS for Question 52 to 55 (4 items)- Study the following graph carefully to answer the questions:



NUMBER OF UNITS MANUFACTURED (IN CRORES) AND EXPORTED (IN CRORES) BY A COMPANY OVER THE YEARS

PQ52. What is the average number of units exported over the year in crores?

- A. 3
- B. 4
- C. 4.5
- D. 5

Answer: B

Exp: None

PQ53. In which year is the percent of units exported with respect to the units manufactured the minimum?

- A. 2007
- B. 2008
- C. 2009
- D. 2010

Answer: D

Exp: None

PQ54. In which year is the difference between the units manufactured and exported the maximum?

- A. 2008
- B. 2009
- C. 2010
- D. 2012

Answer: C

Exp: None

PQ55. What is the difference between the number of units exported in 2008 and 2011?

- A. 1000
- B. 10000000
- C. 20000000
- D. 100000

Answer: B

Exp: None

Paragraph: DIRECTIONS for Question 56 to 57 (2 items)- Study the following information to answer the given question:

A, B, C, D, E, F, G and H are seated in a straight line facing north. A sits fourth to the left of E. F sits either sixth from the left end of the line or fourth from the right end of the line. D sits second to right of C. C is not an immediate neighbor of E. E and B are immediate neighbors of each other but neither E nor B sits at extreme ends of the line. Only one person sits between E and G. G does not sit at the extreme end of the line.

PQ56. What is the position of B with respect to A?

- A. Fifth to the right
- B. Immediate neighbour
- C. Second to right
- D. None of the above

Answer: B

Exp: None

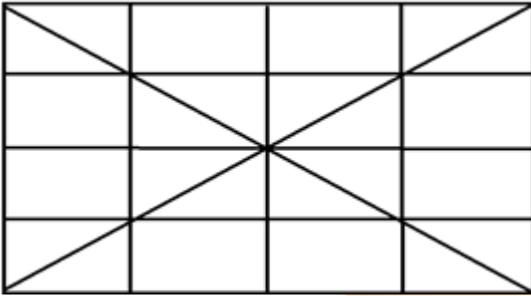
PQ57. Which of the following represents persons seated at the two extreme ends of the line?

- A. H, D
- B. C, F
- C. H, A
- D. None of the above

Answer: A

Exp: None

Q58. How many triangles does the following figure have?



- A. 48
- B. 46
- C. 42
- D. None of the above

Answer: A

Exp: None

Q59. Sarita is eight ranks ahead of Sapna who ranks twenty-sixth in a class of 42. What is Sarita's rank from the last?

- A. 9th
- B. 25th
- C. 32nd
- D. 34th

Answer: B

Exp: None

Q60. P and Q start moving towards each other from two places 200m apart. After walking 60m, Q turns left and walks 20m, then he turns right and walks 40m. He then turns right again and comes back to the road on which he had started walking. If P and Q walk with the same speed, what is the distance between them now?

- A. 15m
- B. 40m
- C. 30m
- D. 50m

Answer: B

Exp: None

Paragraph: DIRECTIONS for Question 61 to 63 (3 items)- Read the passage given below and answer the questions that follow: **PASSAGE 4-** The G20's finance ministers and central-bank governors have begun to undertake a stunning shift in mindset. They have become increasingly convinced that "green finance" – financing environmentally sustainable growth – should be at the center of economic-development strategies. Such an idea, until recently confined to a fringe of academics and policymakers, is potentially one of the most important new "truths" of the twenty first century. The conventional economic-development model viewed environmental protection as a "luxury good" that societies could afford only after they became rich. Such thinking explains why the dramatic growth in global income, 80-fold in real terms during the last century, has been accompanied by a decline, according to the United Nations Environment Programme, in natural capital in 127 of 140 countries. But natural capital is not just an abstract concept; it supports lives, livelihoods, and societal wellbeing. The environmental destruction that our activities are wreaking – greenhouse-gas emissions add energy to the Earth system at a rate equivalent to the detonation of four nuclear bombs every second – has concrete consequences, which are already being borne by millions of people.

PQ61. According to the passage, the stunning shift in mindset undertaken by G20's finance ministers and central-bank governors is that:

1. economic-development strategies should give more importance to "green financing".
2. conventional approach to economic development should be changed.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 and 2

Answer: C

Exp: The sentence, "They have.... strategies." indicates that the leaders are thinking about strategies that give more weightage to "green financing". This also indicates that their conventional approach has changed. Hence, both 1 and 2 can be inferred. Hence, the correct answer is option c.

PQ62. What was the theory of conventional economic-development model?

- A. Environmental protection issue should be the least priority.
- B. Standard of living is a necessity.
- C. "Green financing" is a waste of capital and resources.
- D. None of the above

Answer: A

Exp: The sentence, "The conventional... became rich." indicates that this model preferred achieving basic necessities of life before focussing on environmental problems. Thus, option (a) is vindicated.

Options (b) and (c) are not appropriate in the given context.

Hence, the correct answer is option a.

PQ63. According to the passage, investing money in environmental protection activities will:

1. positively affect the society
2. support livelihood
3. reduce greenhouse emissions

Which of the statements given above is/are correct?

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

Answer: A

Exp: Statements 1 and 2 can be inferred from "But natural...well- being."

Hence, the correct answer is option a.

Q64. If governments want lower interest rates they should be able to tolerate higher inflation said outgoing Reserve Bank of India Governor Raghuram Rajan. The Centre and RBI have agreed to a monetary framework as part of which the central bank has to achieve a retail inflation target of 4 per cent, with a band of +/- 2 per cent, from 2016-17. "One of the changes we have brought in is the inflation framework...where the idea is if the government really wants lower interest rates then change the inflation objective," Dr. Rajan said. "Don't give a tight inflation band and say you have to stick within this and then say please lower interest rates." In the light of the argument in the above passage.

Which one of the following statements, if true, is the most convincing explanation?

- A. Lower interest rates mean banks earning less on loan disbursement.
- B. Loans at lower interest rates get more or less counterbalanced with low interests earned on savings.
- C. Low interest rates result in consumers having more money to spend, causing the economy to grow and inflation to increase.
- D. Low inflation requires less buyers in the market with money which in turn is dependent on salaries of the people than on interest rates.

Answer: C

Exp: The passage talks about a direct correlation between lower interest rates and higher inflation. Option (a) cannot explain this correlation as banks earning less cannot possibly have an effect on inflation, which is dependent on investment cash-flow. Option (b) actually states that effect of lower interest rates gets negated and thus indicates that it possibly cannot be the reason behind higher inflation. Option (d) correlates inflation with earnings of people and not interest rates and thus is eliminated. Option (c) gives the reasoning behind how low interest rates result in increased cash flow which in turn boost inflation. Thus, it provides the most convincing explanation for the correlation between lower interest rates and higher inflation. Hence, the correct answer is option c.

Q65. Childhood emotional experiences of individuals can have long lasting consequences in adulthood while they perform a task, a study revealed. The emotional bond shared with parents in early childhood generates our ability to regulate emotions as adults. But not everyone's actions are impacted by emotions to the same extent. Some of us had emotionally responsive caregivers or parents in childhood, while others didn't. It is expected that those having problems with emotional regulation make more errors in performing a task — and one significant variable influencing this is our attachment experience. To test this theory, they conducted a study on adults with different childhood experiences. A task was administered under conditions that evoked a positive, neutral or negative emotional state. The researchers then assessed task performance and analysed electroencephalogram (EEG) recordings of brain function in their subjects. Subjects who did not have emotionally responsive caregivers in childhood had more trouble performing under emotionally negative conditions than the others, the study showed. This could mean that a greater share of cognitive resources was allocated for regulating emotions, and consequently, less was available for performing the task, the researchers suggested.

The author's viewpoint can be best summed up in which of the following statements?

- A. If a person fails to stabilize emotionally as a child, he cannot do so as an adult.
- B. Emotions if not regulated properly can affect performance.
- C. The root of emotional outbursts almost always lies in a disturbed childhood.
- D. Negative childhood emotional experiences leads to problematic emotional regulation as adults.

Answer: D

Exp: The passage states if a person does not receive emotionally stable environment in childhood, he fails to regulate his emotions in adulthood and performs badly under adverse emotional conditions. This is captured best in option (d).

Option (a) is not necessarily correct from the passage as the situation depicted in the passage is generic and does not exactly form a rule.

Option (b) is incomplete as it fails to take into account childhood emotional experiences.

Option (c) is slightly vague as the passage does not talk about emotional outbursts specifically.

Hence, the correct answer is option d.

Q66. Distance between two stations A and B is 2778 km. A train covers the journey from A to B at 84 km per hour and returns back to A with a uniform speed of 56km per hour. Find the average speed of the train during the whole journey?

- A. 67.0 km/hr
- B. 67.2 km/hr
- C. 69.0 km/hr
- D. 69.2 km/hr

Answer: B

Exp:

$$= \frac{2xy}{x+y} \text{ km/hr}$$

$$= \frac{2 \times 84 \times 56}{84+56} = 67.2 \text{ km/hr}$$

Q67. Lallan has a brother Anil, Lallan is the son of Chandra who is the only son of his father. Bimal is Chandra's father. How is Anil is related to daughter of Bimal's son?

- A. Son

- B. Brother
- C. Grandson
- D. Cousin

Answer: B

Exp: Bimal is grandfather of Anil. Bimal's son's daughter will be his sister.

Q68. I started cycling at 7 am to reach a certain place. After going a certain distance, my bicycle went out of order. Consequently, I rested for 1 hr and came back to my house walking all the way. I reached my house at 2 pm. If my cycling speed is 10 kmph and my walking speed is 2 kmph, then the distance covered by me on my bicycle is:

- A. 6 km
- B. 7 km
- C. 9 km
- D. 10 km

Answer: D

Exp: Time taken = 6 hrs. Let the required distance be x km. Then, $x/10+x/2 = 6$, So, $6x = 60$ and $x = 10$ kms.

Paragraph: Directions for Q no. 69 (1 Item): Study the information given below carefully to answer the following questions. In a certain code language the following lines written as 'lop eop aop fop' means 'Businessman are above laws' 'fop cop bop gop' means 'Developers were above profitable' 'aop bop uop qop' means 'Developers stopped following businessman' 'cop jop eop uop' means 'Following maps were laws'.

PQ69. 'Developers are following laws' would be correctly written as

- A. 'bop cop uop eop'
- B. 'lop bop eop uop'
- C. 'oup cop lop aop'
- D. 'gop cop uop qop'

Answer: B

Exp: None

Q70. Mr. Alphonso is an orange wholeseller residing in Nagpur. Mr. Alphonso buys two lots of oranges. The first lot costs him Rs. 30 per dozen and the second lot at Rs. 50 per dozen. He sold all the oranges at Rs. 40 per dozen. Find his profit/loss percentage if he spent the same amount of money on each of the lots.

A.

$6\frac{2}{3}$ % loss

B.

$6\frac{2}{3}$ % profit

C. 5% profit

D. None of the above

Answer: B

Exp: Let us consider he invests Rs. 150 in each lot since it is the LCM of 50 and 30.

So, total investment will be Rs. 300. He will get 5 dozen in first lot and 3 dozen in second lot. In all he will have 8 dozen. S.P. of 8 dozen will be = $40 \times 8 = 320$ Rs.

So Profit % = $\frac{320-300}{300} \times 100 = 6\frac{2}{3}$ %

Q71. Each odd digit in the number 345263187 is substituted by the next higher digit and each even digit is substituted by the previous lower digit and the digits so obtained are rearranged in ascending order. Which of the following will be the 4th digit from the right end after the rearrangement?

- A. 2
- B. 4
- C. 5
- D. 6

Answer: C

Exp: Given number	3 4 5 2 6 3 1 8 7
After Substitution	4 3 6 1 5 4 2 7 8
After rearrangement	1 2 3 4 4 5 6 7 8

Q72. The distance between two cities A and B is 330 Km. A train starts from A at 8 a.m. and travel towards B at 60 km/hr. Another train starts from B at 9 a.m and travels towards A at 75 Km/hr. At what time do they meet?

- A. 10 am
- B. 10.30 am
- C. 11 am
- D. 11.30 am

Answer: C

Exp: Suppose they meet x hrs. after 8 a.m. then (Distance moved by first in x hrs.) + [Distance moved by second in (x - 1) hrs] = 330
 Therefore $60x + 75(x - 1) = 330$
 $= x = 3$ So, they meet at (8 + 3) i.e. 11 a.m.

Q73. Arun, Varun, Charan work in Mind field Robotic Company as Systems Engineer. The salaries of Arun, Varun, Charan are in the ratio 2 : 3 : 5. If the increments of 15%, 10% and 20% are allowed respectively in their salaries, then what will be the new ratio of their salaries?

- A. 3:3:10
- B. 10:11:20
- C. 23:33:60
- D. Cannot be determined

Answer: C

Exp: Let A = 2k, B = 3k and C = 5k

$$A's \text{ new salary} = \left[\frac{115}{100} \times 2k \right] = \frac{23k}{10}$$

$$B's \text{ new salary} = \left[\frac{110}{100} \times 3k \right] = \frac{33k}{10}$$

$$C's \text{ new salary} = \left[\frac{120}{100} \times 5k \right] = 6k$$

$$\text{So, new ratio} = \frac{23k}{10} : \frac{33k}{10} : 6k = 23 : 33 : 60$$

Q74. If today is Monday, after 71 days it will be which day?

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

Answer: C

Exp: Each day of the week is repeated after 7 days. After 70 days, it will be Monday. So, after 71 days, it will be Tuesday.

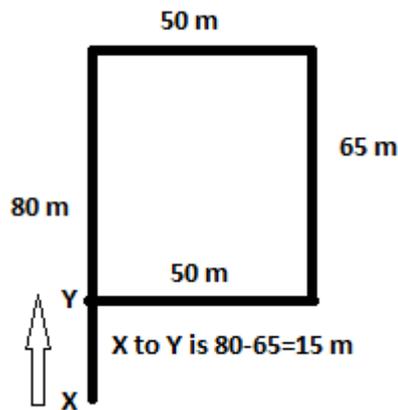
Q75. Wahab Riyaz travelled from a point X straight to Y at a distance of 80 metres. He turned right and walked 50 metres, then again turned right and walked 65 metres. Finally, he turned right and walked 50 metres. How far is he from the starting point?

- A. 15 m
- B. 20 m
- C. 50 m

D. 70 m

Answer: A

Exp: From diagram we can see that distance from X to Y is 15 mt.



Q76. A warming planet might not dry out Earth as much as previously believed, because plants will become less thirsty as carbon dioxide in the atmosphere rises, researchers said on Tuesday. Previous studies have projected that more than 70 per cent of the planet will experience more drought as carbon dioxide levels quadruple from pre-industrial levels over about the next 100 years, said the report in the Proceedings of the National Academy of Sciences. But many of these models fail to account for how plant behaviour will change in a warming world.

Plants take in CO₂ through openings called stomata, which also release moisture. But when CO₂ is abundant, these stomata stay open for shorter periods, lose less water, and therefore need less water from the soil.

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

- A. Plants benefit from an environment with more carbon dioxide
- B. Droughts on earth would be history soon as plants keep evolving.
- C. Carbon dioxide levels on earth in future will decrease.
- D. Climate models adopt unscientific methods and thus fail.

Answer: A

Exp: Option (b) is extreme as droughts becoming history is not supported by the passage.

Option (c) is incorrect as it is not corroborated by the passage as that carbon dioxide levels are likely to drop.

Option (d) is incorrect as it is not supported by the passage.

Option (a) is correct as, per the passage, plants have adjusted with temperature change more than expected and thus their chances of survival are higher than anticipated.

Hence, the correct answer is option a.

Paragraph: DIRECTIONS for Question 77 to 79 (3 items)- Read the passage given below and answer the questions that follow: **PASSAGE 5-** Almost all international studies conclude that India's labour regulatory structure does not have the flexibility commensurate with a buoyant, growing economy. For firms in the organized sector having more than a certain critical number of labourers it is extremely hard to retrench workers or downsize the labour force. At first sight this looks like a pro-labour legislation, one that protects the interests of workers. On the other hand, it can be argued that most potential firms are far-sighted enough to realize that, once they become sufficiently large in terms of employment, if they later need to retrench workers because the demand for their product slacks off, they will not be able to do so easily. This is likely to prompt them to remain small or not go into business at all, since all laws also play an expressionist role whereby they affect behaviour beyond the actual ambit of the law. Hence it is arguable that our labour laws, such as the Industrial Dispute Act of 1947, if appropriately reformed, can lead to a greater demand for labour, and through that improve economic well-being of workers.

PQ77. According to the passage, the firms in the organized sector

1. have fixed and regular employment terms.
2. move inconsistently with the growth rate of the economy.
3. lay off majority of their employees due to inflexible labour rules.

Which of the statements given above is/are correct?

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

Answer: A

Exp: According to the passage, the incapability of firms in organized sector to retrench workers shows that they are bound by certain employment rules. Hence, statement 1 is validated.

The passage says "labour regulatory structure" is inconsistent with the growing economy. So, eliminate statement 2.

The passage speaks contrary to what statement 3 says.

Hence, the correct answer is option a.

PQ78. According to the passage, most potential firms are far-sighted. Why?

- A. They plan to retrench their workers due to decrease in demand.
- B. They struggle to protect the interest of their workers in the long-run.
- C. They try to keep the size of their labour force to minimum.
- D. They strive to maintain the growth of the country's economy.

Answer: C

Exp: The passage says that most of the potential firms are far-sighted meaning 'showing a prudent awareness of future possibilities' and so remain small in size so that they do not have to lay off workers if they exceed their limit. This validates option (a).

Options (a), (b) and (d) do not answer the question stem aptly.

Hence, the correct answer is option c.

PQ79. ".....all laws also play an expressionist role whereby they affect behaviour beyond the actual ambit of the law." from the passage implies that:

1. Much of labour market behaviour lies beyond the arm of the law.
2. Presently, the labour laws affect the economic well-being of workers.
3. The labour laws are not stringent enough to keep the labour market stable.

Select the correct answer using the code given below:

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

Answer: C

Exp: Statement 1 rephrases what has already been stated in the given sentence.

Statement 2 can be implied as the succeeding sentence says that since the laws play an expressionist role, there is a need to reform laws that can improve the economic well-being of workers.

Statement 3 cannot be said as the laws being stringent or not has not been mentioned in the passage.

Hence, the correct answer is option c.

Q80. Consider the following arguments: In order to be a musician one must know how to play guitar.

All singers are lyricist. Some dancers are singers. No one who knows playing guitar is a lyricist.

Which one of the following is NOT a valid conclusion regarding the above argument?

- A. Some dancers are not musicians
- B. Some musicians are not dancers
- C. Singers are not musicians
- D. None of the above

Answer: D

Exp: None



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