

Answer & Explanation for CSAT Test-2 held on 25th February'2018

Paragraph: Directions for Question 1 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: PASSAGE 1- Of the various infra projects, those urgently needed in India are power, roads, ports and airport sectors. Amongst these, power (other than solar) is perhaps the only project that could be termed 'bankable' i.e. it could repay principal and interest over a reasonable period of 7 to 10 years. All others have a very long life of over 25 years and therefore, yield lower returns. These projects could barely pay interest on debt over the years and repayment of principal would pose an unreasonable burden on their cash flow even after 25 years or so.

PQ1. Which among the following is the most logical and rational inference that can be made from the passage?

- A. Laying down railway lines is necessary to improve national connectivity.
- B. Solar power is not cost effective.
- C. The most important characteristic of an infrastructure project is that it should be "bankable".
- D. Airports can only be constructed after taking loans from a bank.

Answer: B

Exp:Options (a) and (d) are incorrect as they have not been mentioned in the passage.

Option (b) can be inferred as "other than solar" all other power infrastructure projects are "bankable".

Option (c) cannot be inferred as nowhere in the passage do they define other characteristics of infrastructure projects.

Paragraph: Directions for Question 2 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: PASSAGE 2- Across India, suicides among cash crop farmers are far higher than those amongst food crop growers. Cash crop farmers run far greater risks, incur much higher cultivation costs, and have to borrow a lot more money than their food crop-growing counterparts. The period from 2008 to 2010 was better for Kerala than any other state. Kerala set up a debt relief tribunal in 2005, raised support to the farm sector and took other steps to mitigate distress. Even its troubled food crop sector received a boost. Yet, the state will take a worse hit than any other due to the multiple free trade agreements the Union government has signed or will enter. And reports of rising farm suicides again in the cash-crop citadel of Wayanad signal which way Kerala is now headed.

PQ2. Which of the following corroborates the view as presented in the above passage?

- A. The Government provided a special status to Kerala in the multiple free trade agreements.
- B. Kerala is the state which has the least number of suicides in the country.
- C. It is easier to obtain loans for cash crops rather than for food crops.
- D. Cash crop farmers' suicides is set to increase in Kerala in the coming times.

Answer: D

Exp:Option (a) is eliminated because there is no supporting data for it.

Option (b) is incorrect because it mentions suicides in general whereas the passage deals with farmer suicides.

Option (c) is incorrect because there is no comparison made regarding the ease of getting loans.

Option (d) is correct as the last sentence states that the number of cash crop farmer suicides, which lowered in Kerala in the past, is set to rise given the policy change.

Paragraph: Directions for Question 3 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 3-** The scale and frequency of weather shocks, combined with long-term economic forecasts of climate change effects and fossil fuel costs, are having a political as well as an economic impact. Many developing country governments are changing their approach to infrastructure and industrial planning, choosing to design more sustainable, resilient pathways to economic growth. They are developing comprehensive national investment programmes in clean energy, energy efficiency, water management, climate-resilient agriculture, smart grids and low-carbon transport systems. This strategic shift has been termed "greening the economy" or making a "green growth" transition. Currently, private investment is not forthcoming for these plans due to a range of perceived risks and the relative novelty of the market.

PQ3. What does the above passage imply?

- A. Many developing country governments are strategizing to move towards green growth by developing crops that are less affected by climatic changes.
- B. Many developing country governments are strategizing to move towards green growth by using funds from private investment.
- C. Many developing country governments are strategizing to move towards green growth by stopping climate change.
- D. Many developing country governments are strategizing to move towards green growth by cutting down on fossil fuel costs.

Answer: A

Exp:The third sentence states that - "they are developing ... climate-resilient agriculture." This validates option (a).

Option (b) contradicts the passage which states that private investment is not coming into this area.

Option (c) is an absurd idea, and can't be inferred from the passage.

Option (d) is not mentioned in the passage as a step taken by the developing country governments.

Paragraph: Directions for Question 4 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 4-** Promoting entrepreneurship among women will require an even greater reversal of traditional attitudes than the mere creation of jobs for women would. Training in entrepreneurial attitudes should start at the high school level through well-designed courses which build confidence through behavioural games. To provide women increased mobility, high school girls should be compulsorily taught to cycle. There is proof that increased mobility contributes immensely to raising confidence levels.

Another area of concern in the case of women entrepreneurs is stagnation in their growth due to various reasons like the demands of household duties, mobility problems and psychological causes like lack of self-confidence and fear of success. The necessary managerial and technical skills are also lacking. Counselling through committed NGOs, psychologists, and technical personnel could result in the development of appropriate strategies and enable growth.

PQ4. What is the key message conveyed by the above passage?

- A. It is easier to create jobs for women than to reverse traditional gender stereotypes.
- B. Women entrepreneurs would gain confidence through improved mobility.

C. For women to successfully become entrepreneurs, a holistic training in entrepreneurial attitudes is needed.

D. Psychological counseling is a vital element in fostering the growth of the female gender.

Answer: C

Exp:All the given statements are correct. However, the key message should be the one that is the most comprehensive.

Options (a), (b) and (d) address only individual elements of the issue in the passage. The key concern is the need for a comprehensive strategy to develop entrepreneurial attitudes. Hence, the answer is (c).

Paragraph: Directions for Question 5 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 5-** When are political institutions and the decisions made within them appropriately called legitimate? Some have argued that this question has to be answered primarily on the basis of procedural features that shape these institutions and underlie the decisions made. Others argue that legitimacy depends exclusively or at least in part on the substantive values that are realized. A related question is: does political legitimacy demand democracy or not? This question is intensely debated both in the national and the global context. Insofar as democracy is seen as necessary for political legitimacy, when are democratic decisions legitimate? Can that question be answered with reference to procedural features only or does democratic legitimacy depend both on procedural values and on the quality of the decisions made?

PQ5. Which among the following is the most logical, rational and critical inference that can be made from the passage?

A. Political legitimacy is a virtue of political institutions and of the decisions made within them.

B. There are questions about the requirements of legitimacy in politics.

C. Political legitimacy stands for a right to rule, a right to issue commands and to enforce these commands using coercive power.

D. Historically, political legitimacy was associated with the state and institutions and decisions within the state but contemporary literature tends to judge this as too narrow.

Answer: A

Exp:The passage talks about how political legitimacy can be understood and what is it based on. Option (b) is incorrect as it questions the need for political legitimacy. Option (c) talks about political authority more than political legitimacy. Option (d) gives a comparison of the historic and contemporary view which is not what the passage is about.

The first line of the passage gives us a hint that the rest of the passage will give us reasons or points to ponder as to when political institutions (based on their decisions) are legitimate. Option (a) can be inferred as it talks about all the important elements presented in the passage - political legitimacy, and decisions made by political institutions.

Paragraph: Directions for Question 6 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 6-** A fall in total gross domestic product of, say, 10 percent may not look like much if it follows in the wake of a growth rate of 5 or 10 percent every year over the past few decades. Yet, that decline can decimate lives and create misery for millions if the burden of contraction is not widely shared but allowed to be heaped on those, the unemployed or the economically redundant, who can least bear it.

PQ6. What is the message implied by the above passage?

- A. Poverty is result of poor distribution of resources both economic and natural.
- B. Governments through better tax regime should target the poverty related programs
- C. A growth or fall in GDP should be assessed not just in figures but on the basis of how it is shared across the population.
- D. GDP is not enough to evaluate the economic growth in a country.

Answer: C

Exp:The passage is not about poverty solely. So, eliminate option (a). Option (b) is out of context.

Option (c) can be implied as the passage says that how a rise in GDP may not be beneficial to the poor section of the country but a fall can affect them badly.

Option (d) talks about calculation of economic growth which is not discussed in the passage.

Hence, the correct answer is option c.

Paragraph: Directions for Question 7 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 7-** The eco-agriculture loan system has enabled residents to rehabilitate and reinforce slope lands, enrich the soil and maximize their yields by using the proper methods, schemes and type of crops. Together with agro-forestry training, the loans helped the community transform formerly eroded and degraded slope lands by using an inter-cropping system, thereby securing their homes and producing additional forage for animals for the winter. One of the most significant impacts of microloans in upholding rural communities' livelihoods and creating income generating opportunities can be observed by the reduced number of migrant workers to the nearby cities, as well as in the interest of members and representatives of neighbouring communities in obtaining loans and benefiting from the microloan foundation's activities.

PQ7. Which of the following statements would the author agree with?

- A. Yield per acre of agricultural land must increase for it to be fruitful.
- B. The eco-agriculture loan system should be implemented across a wider region.
- C. Privatised agricultural loans should be introduced to increase competitive interest rates.
- D. Policy intervention is necessary to help save livelihoods based on agriculture.

Answer: B

Exp:The passage mainly deals with the success/benefits of the "eco-agriculture loan system". It makes it clear that it should be made available to more farmers as indicated in option (b).

Option (a) is incorrect. It has no supporting data in the passage.

Similarly, the passage does not mention the need for "privatised agricultural loans" or "policy intervention". This eliminates options (c) and (d).

Paragraph: Directions for Question 8 (one) items- Read the following eight passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 8-** It's worth noting that scientists haven't yet pinpointed how the wax worm chemically breaks down plastic. In fact, they say it may not be the worm itself doing the work, but a bacteria in its gut that starts the process. Either way, identifying the enzyme responsible could have big ramifications for breaking down plastic waste.

The idea isn't to release millions of worms for a feeding frenzy at a dump. Researchers are hoping to find biotechnological solutions to the problem of plastic waste. The best scenario would be to isolate the molecule responsible and produce it in large scale in a lab in vitro, and then distribute the molecule in large scale.

The wax worm isn't the only organism that can break down plastics. For example, gut bacteria in the larvae of the moth *Plodiainterpunctella* can break down polyethylene, but at a slower rate.

PQ8. Consider the following statements:

1. The use of enzymes from worms is a viable solution for dealing with plastic waste.
2. If scientists can develop a way to promote rapid breeding of the wax worm and the moth *Plodiainterpunctella*, dealing with plastic waste will become easy.

With reference to the passage, which of the given statements is/are correct?

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

Answer: D

Exp:Statement 1 is wrong because the idea is still being examined- it “could” have ramifications, but they haven’t been ascertained yet.

Statement 2 is wrong because the second paragraph states that the idea is not to release large numbers of these worms onto waste; rather, the intention is to isolate the molecule responsible and produce it in vitro.

Q9. Three statements are given below, followed by two conclusions. Assuming the statements to be true, identify the conclusion(s) that follow.

Statements:

- I. All machines are oil.
- II. Some machines are wire.
- III. No wire is current.

Conclusions:

1. Some machines are not current.
2. Some current can be machine.

Select the correct answer using code:

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

Answer: C

Exp:None

Q10. Examine the following statements:

Statements:

- A. All Bats are Tough.
- B. All Beasts are Bats.
- C. No Hats are Beasts.

Conclusions:

1. Some Tough are Hats.
2. Some Bats are Hats.
3. Some Tough are Beasts.
4. No Bats are Hats.

Which of the given conclusions cannot be drawn from the above statements?

- A. 1, 2 and 3 only

- B. 1, 2 and 4 only
- C. 2, 3 and 4 only
- D. None of them

Answer: B

Exp:None

Q11. If $m = 51 \times 52 \times 53 \times \dots \times 100$ and $n = 101 \times 102 \times 103 \times 104$, then find the LCM of m and n .

- A. $10403 mn$
- B. $104!$
- C. $10403 m$
- D. mn

Answer: C

Exp:101 and 103 are prime numbers and 102 and 104 are included in m .

Paragraph: Directions for Question No. 12 to 14 (three) items: Read the passage below and answer the questions based on it. Four friends P, Q, R and S are playing a game such that the loser doubles the money of each of the other player. They played four games and each friend lost one game in alphabetical order. At the end of fourth game each friend had 512.

PQ12. Who started with the lowest amount?

- A. P
- B. Q
- C. R
- D. S

Answer: D

Exp:None

PQ13. What was the amount with P at the end of the first round?

- A. 1056
- B. 128
- C. 64
- D. 256

Answer: C

Exp:None

PQ14. What was the amount with R at the end of the third round?

- A. 256
- B. 1152
- C. 576
- D. 512

Answer: A

Exp:From the given data we can infer:

After 4th round P Q R S have respectively 512 512 512 512

Before 4th round P Q R S have respectively 256 256 256 1280

Before 3rd round P Q R S have respectively 128 128 1152 640

Before 2nd round P Q R S have respectively 64 1088 576 320

Thus, before 1st round P Q R S have respectively 1056 544 288 160

Q15. The average age of a football team of 11 players is same as it was 4 years ago because 4 of the players whose current average age is 36 years were replaced by 4 youngsters. The present average age of the youngsters is:

- A. 25 years
- B. 26 years
- C. 28 years
- D. Cannot be determined

Answer: A

Exp:The total age of 4 players who are being replaced is $4 \times 36 = 144$ years. The total age of all the 11 players in last 4 years would have increased by $4 \times 11 = 44$ years. So, the total age of youngsters at present is $144 - 44$ years = 100 years.

Therefore, their present average age is $100/4$ years = 25 years.

Q16. 15 men, 20 women and 12 children were given a task of distributing 1800 blankets in shelter homes in South Delhi over a period of three days. All of them distributed blankets on the first day. On the second day 3 men, 4 women and 2 children didn't appear and on the final day 5 men, 6 women and 3 children didn't turn up for the task but still all the blankets were distributed. If the ratio of the number of blankets distributed by a man, a woman and a child in a day was 4 : 3 : 2 respectively, total how many blankets were distributed on the third day?

- A. 720
- B. 580
- C. 500
- D. 700

Answer: C

Exp:Let the number of blankets distributed by a man, a woman and a child be $4x$, $3x$ and $2x$ respectively.

Then, the number of blankets distributed on the first day = $15 \times 4x + 20 \times 3x + 12 \times 2x = 144x$
number of blankets distributed on the second day = $12 \times 4x + 16 \times 3x + 10 \times 2x = 116x$
number of blankets distributed on the third day = $10 \times 4x + 14 \times 3x + 9 \times 2x = 100x$

Thus, $144x + 116x + 100x = 1800 \Rightarrow x = 5$

Thus, number of blankets distributed on the third day = $100 \times 5 = 500$

Q17. The monthly incomes of P, Q and R are in the ratio of 8 : 9 : 11 and their expenses are in the ratio of 4 : 5 : 6. If P saves 8000 per month while Q saves 18000 quarterly, then find the income and savings of R respectively.

- A. 44000, 36000
- B. 44000, 8000
- C. 36000, 8000
- D. 33000, 6000

Answer: B

Exp:Let the monthly income of P, Q and R be $8x$, $9x$ and $11x$ respectively and their expenses be $4y$, $5y$ and $6y$ respectively. Then, $8x - 4y = 8000$ & $9x - 5y = 6000$. Solving it, we get $x = 4000$ and $y = 6000$. Thus, income of R = 44000 and savings = 8000

Q18. A boy runs from his home to gym at the speed of 12 kmph and returns home directly after workout at the speed of 6 kmph; in total 3 hours was spent in running. Calculate the distance between his home and gym.

- A. 8 km
- B. 24 km
- C. 12 km

D. 6 km

Answer: C

Exp:The average speed for the entire running was $(2 \times 12 \times 6)/(12 + 6) = 8$ kmph. So total distance he covered = 8×3 km = 24 km.

Thus, the distance between his home and gym is $24/2$ km, i.e. 12 km.

Q19. In a 100 questions test, 0.5 marks was deducted for each wrong answer and 1.5 marks were credited for each correct answer. If the score was 84 after having answered 80 questions, how many answers were correct?

A. 18

B. 42

C. 38

D. 62

Answer: D

Exp:If correct answer = x, then, wrong answer = $80 - x$

$$1.5 \times x - 0.5 \times (80 - x) = 84$$

$$x = 62$$

Q20. On a certain sum of money the compound interest for 2 years is 1134 and the simple interest for the same period of time is Rs. 1080. What is the rate of interest per annum?

A. 8%

B. 9%

C. 10%

D. 12%

Answer: C

Exp:On same sum at same r% p.a. difference between CI & SI after two years

$$CI - SI = I \times R/ 100 \text{ (I is SI for 1 year)}$$

$$1134 - 1080 = 540 \times R/ 100$$

$$r = 10\%$$

Paragraph: Directions for Question No. 21 to 23 (three) items: A basket contains 4 varieties of mangoes. 1 out of 5 mangoes is 'Dushehri', 3 out of 10 mangoes is 'Langda', 3 out of 8 mangoes is 'Chausa', and rest are 'Alphonso'. When opened, 20% of 'Dushehri', 10% of 'Langda', and 25% of 'Chausa' mangoes are rotten and rest are fresh.

PQ21. Find the minimum number of mangoes in the basket:

A. 40

B. 200

C. 800

D. None of the above

Answer: C

Exp:None

PQ22. Find the ratio of number of rotten mangoes of 'Langda' to that of fresh mangoes of 'Dushehri':

A. 3/20

B. 3/16

C. 5/16

D. 7/20

Answer: B

Exp:None

PQ23. If the total number of rotten mangoes in the basket is 786, then total number of mangoes in the basket is:

- A. 2400
- B. 4800
- C. 1200
- D. none of the above

Answer: B

Exp:None

Q24. Out of total 150 applications for a post 80 are males and 90 have a diploma in computer. What is the ratio between minimum number to maximum number of females having diploma in computer?

- A. 8 : 7
- B. 7 : 8
- C. 1 : 7
- D. 7 : 1

Answer: C

Exp:Total applications = 150

Males = 80

Females = 70

Number of diploma holders = 90

∴ Minimum females having computer diploma : Maximum males having computer diploma
= 10 : 70

i.e. 1 : 7

Q25. Read the three statements:

1. The Ambience Mall has more stores than Promenade Mall.
2. The Emporio Mall has fewer stores than Promenade Mall.
3. The Ambience Mall has more stores than Emporio Mall.

If Statements 1 and 2 are true, then Statement 3 is

- A. True
- B. False
- C. Uncertain
- D. Vague

Answer: A

Exp:Ambience Mall > Promenade Mall > Emporio Mall.

Therefore, statement 3 is true.

Paragraph: Directions for Question No. 26 to 27 (two) items: Read the following two passages and answer the items that follow each passage. Your answers to these items should be based on the passages only. **PASSAGE 1-** We are not as educated as we think. We are but beginning the great experiment of universal schooling and it has not had time to affect profoundly our ways of thinking and our public life. We are building the equipment, but we are still primitive in methods and technique.

We think of education as the transmission of a certain body of settled knowledge when it should be rather the development of a scientific habit of mind. The distinctive feature of the unintelligent man is the hastiness and absoluteness of his opinions. The intellectual is slow to believe and

never speaks without modification. The larger use of science and of scientific method in education would give to us a measure of that intellectual conscience which believes only up to the evidence in hand and is always ready to concede that it may be wrong. With such methods, education may prove the great solvent of our ills. It may even make of our children's children the new men and women who must come before the new society can appear.

PQ26. Consider the following statements:

1. Universal schooling will significantly improve our manner of thinking.
2. We think we are more educated than we actually are.
3. An intellectual is less likely to be dogmatic in his views.

With reference to the passage, which of the statements is/are correct?

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

Answer: B

Exp:Statement 1 is wrong since universal schooling can improve our manner of thinking only if it is provided in a well designed manner, not otherwise.

Statement 2 follows from the very first sentence of the passage.

Dogmatic behaviour implies a rigid belief in a viewpoint, without any substance for the same—since an intellectual “*believes only up to the evidence in hand and is always ready to concede that it may be wrong*”, he is unlikely to be dogmatic—hence, statement 3 is correct.

PQ27. What are the problems with the current system of education?

1. The methods of teaching are obsolete.
2. We are yet to see results of the methods of universal schooling.
3. Even intellectuals are ready to admit that they are wrong.
4. We are unable to impart an established body of knowledge.

Select the correct answer from the codes given below:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 3 and 4 only
- D. None of the above

Answer: D

Exp:Statement 1 is wrong because the methods of teaching are primitive, but not necessarily obsolete.

Statement 2 is wrong because we have witnessed that the results are not as expected.

Statement 3 is wrong because the ability of an intellectual to admit that he is wrong is the mark of a good education, not a problem. Statement 4 is wrong because we “*transmit a certain body of settled knowledge*”.

Paragraph: Directions for Question No. 28 to 29 (two) items: Read the following two passages and answer the items that follow each passage. Your answers to these items should be based on the passages only. **PASSAGE 2-** If the Nobel Peace Prize were awarded for actually securing peace, many of those who have received it would have to give it back. For example, in 1994 Yasser Arafat, Yitzhak Rabin and Shimon Peres received the prize jointly, though years later Palestinians and Israelis are still fighting. Mikhail Gorbachev, who received the Prize in 1990, dissolved the Soviet Union but left the Russian economy in collapse and its people in chaos. One of the more notorious awards went to Henry Kissinger and Le DucTho, who

negotiated a cease-fire to end the Vietnam War. The war went on for two more years, and Le DucTho, though not Kissinger, was honest enough to decline the award.

PQ28. According to the passage, the Nobel Peace Prize

1. is frequently given to people who have not actually attained peace
2. is always given to people who have brought about peace

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: A

Exp:Statement 1 is correct, with the use of the word “frequently” justified by the use of the word “many” in the first sentence of the passage.

Statement 2 contradicts the sentiment of the same sentence and is hence wrong.

PQ29. It can be inferred from the passage that

1. prejudice is involved in awarding the Nobel Peace Prize
2. the Nobel Peace Prize can be given to more than one person in the same year
3. the award has led to a new understanding between Israelis and Palestinians

Which of the statements given above is/are correct?

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

Answer: D

Exp:Statement 1 cannot be inferred from the passage while Statement 3 is wrong since the Israelis and Palestinians are still fighting.

Statement 2 is correct and the passage provides multiple examples of instances when more than one person was given the prize.

Q30. Consider the following statements:

1. Only trucks are black and the Scorpio is a truck. Therefore, the Scorpio is black.
2. Only ministers use a flag and Ram does not use a flag. Thus, Ram is not a minister.

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

Q31. When Abhishek was born, his father was 32 years older than his brother and his mother was 25 years older than his sister. If Abhishek’s brother is 6 years older than Abhishek and his mother is 3 years younger than his father, how old was Abhishek’s sister when Abhishek was born?

- A. 10 years
- B. 14 years
- C. 9 years
- D. 7 years

Answer: A

Exp: Let Abhishek's age be x

Then, Abhishek's brother's age = $x + 6$

Abhishek's father's age = $x + 6 + 32 = x + 38$

Abhishek's Mother's age = $x + 38 - 3 = x + 35$

Abhishek's sister's age = $x + 35 - 25 = x + 10$

Abhishek's sister's age at the time of birth of Abhishek = $x + 10 - x$ years = 10 years

Q32. There were 10 stations between Model Town Metro Station and Central Secretariat in the first phase of metro construction. If 5 new stations are added in the second phase of its construction, how many types of new tickets will be required if each ticket is issued for a one way journey?

A. 15

B. 60

C. 140

D. 136

Answer: C

Exp: $2 \times {}^{17}C_2 - 2 \times {}^{12}C_2$

= $2({}^{17}C_2 - {}^{12}C_2)$

= 140

Paragraph: Direction for Question No. 33 and 34 (two) items: Study the following arrangement carefully and answer the questions given below: M J % 4 T E K I 9 # P A \$ Q 3 8 N 5 U 7 W T B @ D F (C) I

PQ33. What should come in place of the question mark (?) in the following series based on the above arrangement? J4E, I#A, Q85, 7t@, ?

A. F16

B. D(C)Z

C. F(C)6

D. FIZ

Answer: A

Exp: None

PQ34. Which of the following is exactly mid-way between K and W in the above arrangement?

A. \$

B. 3

C. 8

D. Q

Answer: D

Exp: None

Q35. At what time between 8 and 9 O' clock will the hands of clock be in opposite direction?

A. 10 mins past 8

B. $10 \frac{10}{11}$ mins past 8

C. 40 mins past 8

D. 11 mins past 8

Answer: B

Exp: The hands of the clock will be opposite to each other around 8:10 but exactly at $(10 \times 12/11)$ mins past 8, i.e. at $120/11$ min past 8 or $10 \frac{10}{11}$ min past 8.

Q36. In a certain code 'CAR' is written as '54', 'BMW' is written as '598'. How will 'AUDI' be written in the same code?

- A. 234
- B. 435
- C. 756
- D. 8630

Answer: C

Exp: C is 3rd alphabet; A is 1st alphabet; R is 18th alphabet $3 \times 1 \times 18 = 54$

B is 2nd alphabet; M is 13th alphabet; W is 23rd alphabet = $2 \times 13 \times 23 = 598$

AUDI = $1 \times 21 \times 4 \times 9 = 756$

Q37. Three bus tickets from city P to Q and two tickets from city P to R cost Rs. 70 but two tickets from city P to Q and three tickets from city P to R cost Rs. 60. What are the fares for cities Q and R from P respectively?

- A. Rs. 18, Rs. 8
- B. Rs. 8, Rs. 18
- C. Rs. 12, Rs. 10
- D. Rs. 15, Rs. 5

Answer: A

Exp: Let Rs. x be the fare of city Q from city P and Rs. y be the fare of city R from city P.

Then, $3x + 2y = 70$(i) and

$$2x + 3y = 60$$
....(ii)

Multiplying (i) by 2 and (ii) by 3 and subtracting we get,

$$5y = 40 \text{ or } y = 8.$$

Putting y in (i) we get x = 18.

Therefore, fare from city Q to city P = Rs. 18 and fare from city R to P = Rs. 8

Q38. There are zebras and peacocks in a zoo. In total there are 100 heads. The number of their legs is 220. How many peacocks are there?

- A. 60
- B. 70
- C. 80
- D. 90

Answer: D

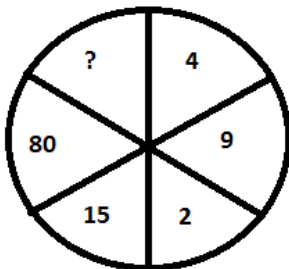
Exp: Let x and y be the number of Zebras and Peacocks in the zoo respectively.

Then, $x + y = 100$ (i) and

$$4x + 2y = 220 \text{ or } 2x + y = 110$$
....(ii)

Solving (i) and (ii) we get, x = 10 and y = 90.

Q39. Consider the diagram given below in which the numbers bear certain relationship among themselves:



Which of the following answer option is correct?

- A. 5
- B. 3
- C. 1
- D. Either (b) or (c)

Answer: B

Exp: Diagonal pattern is used,

$$4^2 - 1 = 15$$

$$9^2 - 1 = 80$$

$$2^2 - 1 = 3$$

Q40. Each of the six different faces of a cube has been coated with a different colour, i.e. V, I, B, G, Y and O. Following information is given:

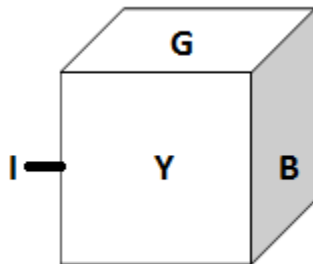
1. Colours Y, O and B are on the adjacent faces.
2. Colour I, G and Y are on the adjacent faces.
3. Colour B, G and Y are on the adjacent faces.
4. Colour O, V and B are on the adjacent faces.

Which is the colour of the face opposite to the face coloured with I?

- A. O
- B. V
- C. G
- D. B

Answer: D

Exp: we can solve this question with the help of statement no. (ii) and (iii)



Paragraph: Directions for Question No. 41 and 42 (two) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 1-** The Swachh Bharat Mission must emphasise more on the importance of segregation of wet waste from dry waste. The biodegradable content in the unsegregated waste leads to higher moisture content and lower calorific value, thus making it less suitable for waste to energy conversion. Similarly, the presence of wet waste at the dumpsites generates leachate, which contaminates groundwater in the area. If the top third of the urban population would give the lead in handing over segregated waste for collection at their doorstep to authorised waste pickers, the municipal governments can concentrate on the task of processing the different streams of waste for resource recovery in a manner which will be financially and environmentally sustainable.

PQ41. According to the above passage, the biggest challenge to waste management is

- A. to find an efficient way of converting biodegradable waste to energy.
- B. to evaluate the amount of wet waste found in the garbage.
- C. to save underground water from further contamination from wet waste.
- D. to achieve proper waste disposal by segregation of wet waste from dry waste.

Answer: D

Exp:The passage basically talks about the problems caused during waste disposal when the wet waste is not segregated from the dry waste.

PQ42. On the basis of the above passage, the following assumptions have been made:

- 1. Biodegradable waste comes from wet waste.
- 2. The urban households need to fulfil their responsibilities to ensure a clean environment.
- 3. Segregation of waste suffers from financial constraints.

Which of the assumptions given above is/are correct?

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

Answer: A

Exp:Statement 1 can be assumed from “The biodegradable content in the unsegregated waste leads to higher moisture...”- high moisture can be related to wet waste only.

Statement 2 can be assumed from “If the top third of the urban population would give the lead in handing over segregated waste for ...”

Statement 3 is beyond the scope of the passage.

Paragraph: Directions for Question No. 43 and 44 (two) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 2-** Financial development plays an important role in economic growth. However, the diffusion of new financial services is usually slow. One example of a new financial product with a particularly low spontaneous take-up rate is weather insurance. Despite its importance in shielding farmers from weather-related risks and in influencing their production investment, the take-up rate of weather insurance products is extremely low even with heavy government subsidies. Existing research has explored a number of possible explanations for this low take-up rate, including a lack of trust and credit constraints. However, insurance demand remains low even after some of these barriers are removed in an experimental setting. A novel experimental design has confirmed two factors that are likely to increase insurance adoption: one is personal experience with disaster, and the other is knowledge of the payout probability. Many financial products have low take-up because people are uncertain about the expected returns.

PQ43. Consider the following statements:

- 1. An important challenge for industry and government is to increase awareness of insurance options.
- 2. Financial development is incomplete without the adoption of weather insurance.
- 3. An increase in the number of disasters will increase the take-up rate of weather insurance.

Which of the statements given above is/are correct?

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

Answer: D

Exp:Statement 1 cannot be concluded since a lack of awareness about insurance options is not stated as a barrier in the take-up of weather-insurance.

Statement 2 cannot be concluded since weather insurance is only stated to be a less popular financial service and not an obstacle in financial development.

Statement 3 is correct since the second-last sentence states that personal experience with the disaster would be a factor in encouraging farmers to take-up weather insurance.

PQ44. Consider the following statements:

1. Over time, experience with subsidized weather insurance may increase farmers' willingness to pay for such insurance products.

2. The quality and need of the financial service product is a critical component in deciding its take-up rate.

Which of the statements given above is/are not correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Answer: B

Exp:Statement 1 is correct since uncertainty about the expected returns of financial products indicate that people have not experienced such products which make them uncertain.

Statement 2 is not correct since the quality and need of the product is not mentioned as relevant criteria. In fact, the exact opposite is indicated because despite being highly beneficial to farmers, weather insurance products have a slow take-up rate.

Paragraph: Directions for Question No. 45 (one) item: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 3-** Defence cooperation has a wide ambit, defined by the Ministry of Defence as "a tool to conduct a country's foreign policy and security affairs. It is an important aspect of national security and strategy encompassing activity undertaken by defence forces to avoid hostility, build up trust and contribute to confidence, prevention and resolution". Military cooperation is only a part of this, since defence cooperation would also include issues handled mainly by the Ministry and its departments rather than service headquarters - such as engagement with other states in the fields of defence technology, procurement and joint production.

India's engagement with the US has recently culminated in the Indo-US nuclear deal. This is touted as the only successful foreign policy initiative of the Bush administration. It was designed to get India on board the 'great power' short-list. With the liberalisation of India's economy in the early 1990s, the US started reaching out to India. There have been a number of steps such as the 2005 Framework Indo-US Defence Agreement. The framework provides for a Defence Policy Group at the apex level with four sub groups: technology, procurement, production and military cooperation. Under the latter, exercises are now routinely held with the US Army, in particular with its Special Forces.

PQ45. Which of the following is the most rational inference from the above passage?

A. India's defence cooperation has classified military cooperation to enumerate its many benefits.

B. India's foreign policy initiatives are more clearly delineated resulting in enhanced engagement with other nations.

C. Military cooperation has improved Indo-US ties and this has resulted into successful policy initiatives.

D. India's foreign policy and security affairs need to be better managed for improving relations with other nations.

Answer: D

Exp: According to the first sentence, "Defence cooperation has a wide ambit, and is a tool to conduct a country's foreign policy and security affairs." Therefore a benefit would include both, "a country's foreign policy" as well as "security affairs" as stated in option (d).

Option (a) is incorrect because there is no indication that military cooperation has been differentiated and classified.

Option (b) is incorrect as except the success of the Indo-US nuclear deal, the quality of foreign policy initiatives has not been discussed.

Option (c) is incorrect because it contradicts the passage, according to which military cooperation. Is a result of successful policy initiatives and not the other way round.

Hence, the correct answer is option (d).

Paragraph: Directions for Question No. 46 to 48 (three) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 4-** The government appreciates the economic role of rational energy pricing. Rational energy prices provide the right signals to both the producers and consumers and lead to a demand-supply match, providing incentives for reducing consumption on the one hand and stimulating production on the other. Aligning domestic energy prices with the global prices, especially when large imports are involved, may be ideal option as misalignment could pose both micro- and macroeconomic problems. At microeconomic level, underpricing of energy to the consumer not only reduces the incentive for being energy-efficient, it also creates fiscal imbalances. Leakages and inappropriate use may be the other implications. Underpricing to the producer reduces both his incentive and ability to invest in the sector and increases reliance on imports. Over the years, India's energy prices have become misaligned and are now much lower than global prices for many products. The extent of misalignment is substantial, leading to large untargeted subsidies. The government has taken several initiatives for rationalizing the energy prices in different sectors. The Integrated Energy Policy has outlined the broad contours of the pricing system for coal. The pricing of coal is done now on gross calorific value (GCV) basis, replacing the earlier system of pricing on the basis of useful heat value (UHV) which takes into account the heat trapped in ash content also, besides the heat value of carbon content. The revision in the GCV is likely to increase the prices of domestic coal to some extent, but this is a desirable adjustment because domestic thermal coal, adjusted for quality differences, continues to be underpriced.

PQ46. What is the central area of focus of the passage?

- A. The role of the Indian government in regulating energy prices.
- B. The detrimental effects of energy subsidies on the economy.
- C. The importance of rationalizing energy prices in India.
- D. The importance of government initiatives towards aligning pricing systems.

Answer: C

Exp: The passage focuses on the need for rational energy pricing and how misalignment of energy prices could be harmful to the Indian economy in the long run, especially with adverse effects on both producers and consumers.

Option (a) is incorrect. Though the passage mention that the government understands the importance of regulating energy prices as well as it initiatives, the passage does not revolve around this aspect.

Option (b) is incorrect. Untargeted energy subsidies have been mentioned in the passage as an outcome of underpricing, rather than being the main area of discussion.

The passage talks mainly about the importance of energy pricing regulation and its alignment with global prices as a whole. Government initiatives to help do so are discussed as part of the solution. Hence, between options (d) and (c), option (c) becomes the more suitable options as option (d) narrows the scope by focusing only on government initiatives.

Option (c) covers the focus area of the passage in an appropriate manner.

Hence, the correct answer is option c.

PQ47. According to the passage, energy underpricing may not lead to which of the following?

1. Lower investor confidence in the energy sector.
2. Increased profligacy in energy usage by consumers.
3. Greater dependence of energy-underpriced countries on energy-rich countries.
4. Deterioration in the quality of the energy supply.

Select the answer from the codes given below:

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

Answer: D

Exp: Underpricing of energy can increase leakages and inappropriate use. This implies that energy might be used in a non-efficient i.e. (wasteful or profligate). Hence, statement 2 is a possible outcome of energy underpricing.

Since underpricing to producers may reduce the interest and incentive for producers to invest in this sector (as mentioned), it can be inferred that the overall investor confidence (and hence, interest) is also likely to go down. Hence, statement 1 is also a possible outcome. The passage clearly mentions that energy underpricing leads to a greater dependence on imports. Hence, an energy-underpriced country is likely to be dependent on an energy rich country (from where it is likelier to import energy). Hence, statement 3 is also a possible outcome.

Quality of energy has not been linked to its pricing in the passage.

Hence, statement 4 cannot be considered a possible outcome.

Hence, the correct answer is option d.

PQ48. Which of the following can be critically inferred from the above passage?

- A. It is essential that domestic energy prices are adjusted to match global ones.
- B. An increase in coal prices would help reduce the burden of untargeted subsidies.
- C. Underpricing of coal puts a higher fiscal strain on the consumer.
- D. Inappropriate use of energy is the primary cause of underpricing of coal.

Answer: B

Exp: Though the passage talks about the alignment of domestic fuel prices with global ones, one cannot infer that these prices must be made 'to match.' This eliminates option (a).

The increase in coal pricing has been mentioned as a desirable outcome as part of the Integrated Energy Policy, which in turn has been mentioned as a government initiative to regulate energy prices. Also, untargeted subsidies are one of the ill-effects of non-regulated prices.

Hence, it can be inferred that an increase in coal prices would indirectly go on to help the burden of untargeted subsidies. Hence, option (b) is correct.

This also eliminates option (d) as option (d) creates a reverse cause-effect relationship between the underpricing of coal and inappropriate use of energy (due to underpriced energy).

Option (c) cannot be inferred from the passage because underpricing of energy creating fiscal imbalances does not necessarily translate into a fiscal strain on the consumer. Hence, the correct answer is option b.

Q49. Consider the given statement and the two conclusions that follow:

Statement:

Having good problem solving skills is an invaluable asset and one has to keep solving puzzles to improve and maintain its value.

Conclusions:

1. Solving puzzles will help improve one's problem solving skills.
2. Solving puzzles is not the only way to improve problem solving skills.

Which of the conclusions is/are valid?

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

Answer: A

Exp: Conclusion 1 is true from the given statement.

Conclusion 2 cannot be validated as there may or may not be another way to improve problem solving skills.

Q50. Consider the given statement and the two conclusions that follow:

Statement:

Almonds are good for memory.

Conclusion:

1. All intelligent people eat almonds.
2. Almonds are essential for maintaining good memory.

Which of the conclusions is/are valid?

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

Answer: D

Exp: According to given statement, almonds being good for memory cannot be validated as being true for all intelligent people as there may be other ways too to improve memory. Also, the word "essential" cannot be concluded from the statement.

Q51. Solve the question based on the following information:

1. A # B means B is at 1 metre to the left of A.
2. A \$ B means B is at 1 metre to the south of A.
3. A * B means B is at 1 metre to the right of A
4. A @ B means B is at 1 metre to the north of A.

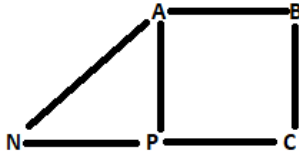
In the question first person from the left is facing north.

According to Ajay * Babita \$ Chhaya # Pankaj # Neeraj, Neeraj is in which direction with respect to Ajay?

- A. North
- B. South-east
- C. North-east
- D. South-west

Answer: D

Exp:



A: Ajay, B: Babita, C: Chhaya, P: Pankaj, N: Neeraj

Q52. In a queue, Shama is 28th from the back while Twinkle is 25th from front and Sweety is just in the middle of the two. If there are 60 persons in the queue what position does Sweety occupy from the front?

- A. 30th
- B. 29th
- C. 28th
- D. 27th

Answer: B

Exp:None

Q53. Kingfisher began a business with Rs. 65,000 and was joined later by Reliance with Rs. 32,500. After how many months did Reliance join, if the profits at the end of the year are divided in the ratio of 6:1?

- A. 4 months
- B. 5 months
- C. 6 months
- D. 8 months

Answer: D

Exp: $\frac{65000 \times \text{Time}(\text{Kingfisher})}{32500 \times \text{Time}(\text{Reliance Caters})} = \frac{6}{1}$

After solving it

$$\frac{\text{Time}(\text{Kingfisher})}{\text{Time}(\text{Reliance Caters})} = \frac{6}{2}$$

6x = 12 months so 2x = 4 months; 12 months – 4 month = 8 months.

Q54. A number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series:

2, 6, 30, 210, 2310, ?

- A. 30030
- B. 46585
- C. 63535
- D. 21175

Answer: A

Exp:Pattern is:

$$2 \times 3 = 6$$

$$6 \times 5 = 30$$

$$30 \times 7 = 210$$

$$210 \times 11 = 2310$$

$$2310 \times 13 = 30030$$

Multiples are prime number.

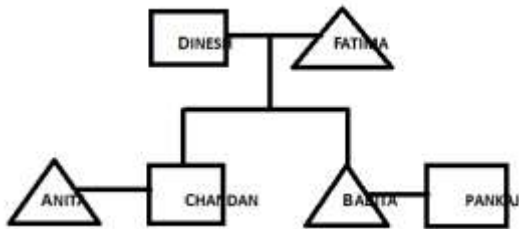
Q55. Anita, Babita, Chandan, Dinesh, Pankaj and Fatima are members of the same family. There are one brother, one son, one daughter, one son-in-law, one daughter-in-law, three couples, three male and three females.

Chandan, Dinesh, Pankaj are the male members, Dinesh is the father of Chandan and Dinesh is the husband of Fatima. Chandan is the husband of Anita
Find how Pankaj is related to Fatima?

- A. Son
- B. Son-in-law
- C. Daughter
- D. Uncle

Answer: B

Exp:



Q56. M is doubly efficient than W and W is three times more efficient than B. Working together they can complete the project in 5 days. Then find how many days B alone will take for the same project?

- A. 81 days
- B. 45 days
- C. 90 days
- D. 50 days

Answer: D

Exp:For example if B can do 1 unit per day then W can do 3 units per day, M 6 units per day. Total $1 + 3 + 6 = 10$ units per day. Working together they can complete the work in 5 days, it means total work is $10 \text{ units/day} \times 5 \text{ days} = 50 \text{ units}$.
B's capacity is 1 unit per day so, B alone will take $50/1 = 50$ days.

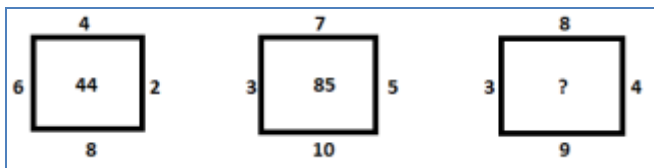
Q57. A candidate scores 25% and fails by 40 marks, while another candidate who scores 50% marks, gets 60 marks more than the minimum required marks to pass the examination. Find the maximum marks for the examination?

- A. 200
- B. 160
- C. 150
- D. 400

Answer: D

Exp:Difference in their marks in term of percentage is 25%.
Difference of their scores = $40+60$. Because the first candidate gets 40 less than the required pass marks, while the second candidate gets 60 more than the required pass marks.
 $25\% = 100$ so maximum marks $100\% = 400$

Q58. Consider the diagrams given below in which the numbers bear certain relationship among themselves:



Which one of the following numbers is the missing number indicated above by '?'

- A. 45
- B. 60
- C. 72
- D. 84

Answer: D

Exp: $(4 \times 8) + (6 \times 2) = 44$

$(7 \times 10) + (3 \times 5) = 85$

$(8 \times 9) + (3 \times 4) = 84$

Q59. In the following number series, some pattern has been followed. On the basis of that pattern, find the number which does not fit in the series.

2, 5, 10, 19, 36, 68

- A. 36
- B. 10
- C. 19
- D. 68

Answer: D

Exp: Pattern followed to solve the equation:-

$2, 2^2+1, 2^3+2, 2^4+3...$

2

$2^2 + 1 = 5$

$2^3 + 2 = 10$

$2^4 + 3 = 19$

$2^5 + 4 = 36$

$2^6 + 5 = 69$

So, clearly 68 in the given series does not follow the pattern.

Hence the answer is 68.

Q60. In the following letter series some of the letters are missing. Choose the correct alternative from those which are given below.

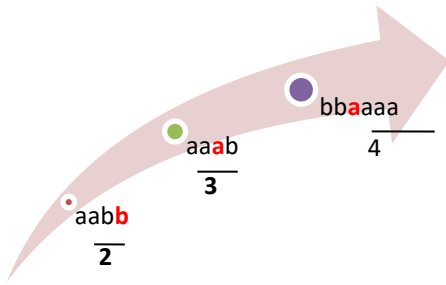
aab_aa_bbb_aaa_bbba

- A. abba
- B. baab
- C. aabb
- D. abab

Answer: B

Exp: The pattern followed to solve the series is :-

The letters are repeated twice, then thrice, then four times and so on.



Now, solving through the options, we get :-

- (a) aaba/aabbbb/baaaabbb/a, (b) aabb/aaabbb/aaaabbbb/a, (c) aaba/aaabbb/baaabbbb/a, (d) aaba/aabbbb/aaaabbbb/a

Clearly, only (b) option follows the given pattern.

Hence the answer is baab.

Q61. The ratio of water and spirit in a mixture is 1:5. If the volume of the solution is increased by 16.66% by adding spirit only, what is the resultant ratio of water and spirit?

- A. 2 : 3
B. 1 : 6
C. 1 : 4
D. 3 : 2

Answer: B

Exp: Let the quantity of water be x and spirit be $5x$

$$\therefore \text{Volume} = x + 5x = 6x$$

$$\text{Increased in volume} = 16\frac{2}{3} \% \text{ of } 6x$$

$$= \frac{50}{300} \times 6x = x$$

Required **Answer:** $x : (5x+x)$

$$= x : 6x$$

$$= 1 : 6$$

Q62. In a college the number of students studying History, Economics and Mathematics are in the ratio of 4:7:9. If the number of students in History, Economics and Mathematics be increased by 30%, 20% and 40% respectively, what will be the new ratio?

- A. 25 : 42 : 62
B. 26 : 42 : 63
C. 28 : 38 : 39
D. None of these

Answer: B

Exp: History

Economics Mathematics

$$\begin{array}{ccc} \frac{4x \times 130}{100} & : & \frac{7x \times 120}{100} & : & \frac{9x \times 140}{100} \\ 52 & : & 84 & : & 126 \\ 26 & : & 42 & : & 63 \end{array}$$

Q63. Four different candles, which can last for 7 hours, 5 hours, 4 hours and 3 hours 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 85 paise per hour. The total cost involved by the time of extinguishing of three candles is:

- A. Rs. 14.45
B. Rs. 9.75
C. Rs. 10.20

D. Rs. 11.75

Answer: A

$$\begin{aligned} \text{Exp: } & \frac{85}{100} \times (3 + 4 + 5 + 5) \\ & = \frac{85 \times 17}{100} \\ & = \text{Rs. } 14.45 \end{aligned}$$

Q64. In 1950, a person's age was 8 times that of his son. In 1958, the father's age becomes ten times that of his son's age in 1950. The ages of the father and son in 1970 were respectively:

- A. 32 years, 4 years
- B. 42 years, 14 years
- C. 52 years, 24 years
- D. None of the above

Answer: C

Exp: Father Son

$$1950 \quad 8x \quad x$$

$$1958 \quad 8x+8$$

Acc. to ques $8x + 8 = 10x$

$$2x = 8$$

$$x = 4$$

∴ Father's age in 1950 = 32 years and son's age = 4 years

∴ Father's age in 1970 = 52 years and son's age = 24 years

Q65. From a rectangular sheet of cardboard of size 5 cm × 2 cm, the greatest possible circle is cut-off. What is the area of remaining part?

- A. $(25 - \pi) \text{ cm}^2$
- B. $(10 - \pi) \text{ cm}^2$
- C. $(4 - \pi) \text{ cm}^2$
- D. $(10 - 2\pi) \text{ cm}^2$

Answer: B

Exp: Area of rectangular sheet = $5 \times 2 = 10 \text{ cm}^2$

And area of circle = $\pi(1)^2 = \pi \text{ cm}^2$

∴ Required area = Area of sheet – area of circle

$$= (10 - \pi) \text{ cm}^2$$

Paragraph: DIRECTIONS FOR Q. 66-67: *Answer the following questions on the basis of the information provided.*

PQ66. Motorists in India frequently complain that traffic congestion is much worse now than it was 20 years ago. No real measure of how much traffic congestion there was 20 years ago exists, but the motorists' complaints are almost certainly unwarranted. India's highway capacity has tripled in the last twenty years, thanks to a vigorous highway construction program, whereas the number of automobiles registered in the country has increased by only 75 percent.

Which of the following, if true, most seriously weakens the argument?

- A. Most automobile travel is local, and the networks of roads and streets in India's settled areas have changed little over the last twenty years.
- B. Petrol prices are high, and kilometres travelled per car per year have not changed much over the last 20 years.
- C. India's urban centers have well-developed public transit systems that carry most of the people who commute into those centers.

D. The average age of automobiles registered in India is lower now than it was 20 years ago.

Answer: A

Exp: This statement properly identifies a weakness in the argument: the response to the broad complaint addresses a different subject, highway capacity, not the issue of traffic congestion encountered by most motorists.

PQ67. 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.

Paragraph: Directions for Question No. 68-69 (two) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 1-** The competitive civil-service system is designed to give candidates fair and equal treatment and to ensure that applicants are hired based on objective criteria. Hiring has to be based solely on a candidate's knowledge, skills, and abilities (sometimes abbreviated as *ksa*), and not on external factors such as race, religion, sex, and so on. Whereas employers in the private sector can hire employees for subjective reasons, government employers must be able to justify their decision with objective evidence that the candidate is qualified.

PQ68. The paragraph best supports the statement that

A. hiring in the private sector is inherently unfair.

B. *ksa* is not as important as test scores to government employers.

C. government hiring practices are simpler than those employed by the private sector.

D. the civil service strives to hire on the basis of a candidate's abilities.

Answer: D

Exp: Refer to the final sentence of the passage.

PQ69. The government's practice of hiring on the basis of *ksa* frequently results in the hiring of employees

A. based on race, religion, sex, and so forth.

B. who are unqualified for the job.

C. who are qualified for the job.

D. on the basis of subjective judgment.

Answer: C

Exp: Refer to the second sentence, which defines *ksa*. The other choices are refuted in the passage.

Paragraph: Directions for Question No. 70 (one) item: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 2-** Everyone is sensitive to extreme weather conditions. But with age, the body may become less able to respond to long exposure to very hot or very cold temperatures. Some older people might develop hypothermia when exposed to cold weather. Hypothermia is a drop in internal body temperature, which can be fatal if not detected and treated.

PQ70. The paragraph best supports the statement that

- A. cold weather is more dangerous for older people than warm weather.
- B. hypothermia is a condition that only affects older people.
- C. older people who live in warm climates are healthier than older people who live in cold climates.
- D. an older person is more susceptible to hypothermia than a younger person.

Answer: C

Exp: The paragraph specifically states that age makes a person less able to respond to long exposure to very hot or very cold temperatures. This would mean that older people are more susceptible to hypothermia.

Paragraph: Directions for Question No. 71-72 (two) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 3-** There are two major components of the burden of diabetes in India, genetic and environmental factors. Environmental factors such as physical inactivity and unhealthy diet pattern play an important role. There is an immediate need to seek the involvement of several stakeholders in prevention and control of diabetes. To start with, the media plays a major role in not only creating awareness of the risk factors but also making policy-makers and others focus on various avenues leading to a better living environment. The existing knowledge of prevention of diabetes can be disseminated to all with the help of the Ministry of Information and Broadcasting, NGOs and healthcare centers. Next, to put the knowledge into practice, it is necessary to create a conducive environment for the public to increase their physical activity.

In order to ensure healthy eating habits, retail shops, fast food outlets and chain restaurants should be encouraged to provide alternative healthy food choices. An additional tax could be levied on junk food. In order to help people with pre-existing diabetes, insurance companies should introduce policies which will cover both outpatient and hospitalization costs.

PQ71. Consider the following statements:

1. Thorough scientific research is necessary to develop strategies to reduce the burden of diabetes and its risk factors.
2. Diabetes is one of the major health and development challenges of the 21st century.
3. One in two people with diabetes doesn't know he/she has it.

In the light of the passage which of the above statements is / are true? Select the correct answer using the codes given below:

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

D. 2 and 3 only

Answer: A

Exp: There is no supporting data for any of the statements. Hence, none of them can be considered correct.

PQ72. Consider the following statements:

1. The responsibility of playing a role in turning the tide of diabetes cannot be assigned to any one stakeholder alone.

2. Lack of healthy eating habits is construed to add to the burden when identifying factors which induce diabetes.

3. Ministry of Information and Broadcasting should assume the responsibility for making people aware of the facts about diabetes.

Which of the following statements can be inferred from the passage? Select the correct answer using the codes given below:

A. 1 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: D

Exp: All three statements are inferred from the passage.

Statement 1 is inferred from "there is an immediate need to seek the involvement of several stakeholders in prevention and control of diabetes".

Statement 2 is inferred from "In order to ensure healthy eating habits, retail shops, fast food outlets and chain restaurants should be encouraged to provide alternative healthy food choices" and "the government should encourage small entrepreneurs to manufacture nutritious and palatable snacks for people belonging to different economic strata at an affordable cost".

Statement 3 is inferred from "the existing knowledge of prevention of diabetes can be disseminated to all with the help of the Ministry of Information and Broadcasting".

Paragraph: Directions for Question No. 73-74 (two) items: Read the following four passages and answer the items that follow each passage. Your answers to these items should be based on the passages only: **PASSAGE 4-** The core belief of National Urban Livelihoods Mission (NULM) is that the poor are entrepreneurial and have an innate desire to come out of poverty. The challenge is to unleash their capabilities to generate meaningful and sustainable livelihoods. The first step in this process is motivating the urban poor to form their own institutions. They and their institutions need to be provided sufficient capacity so that they can manage the external environment, access finance, expand their skills, enterprises and assets.

An external, dedicated and sensitive support structure, from the national level to the city and community levels, is required to induce social mobilisation, institution building and livelihood promotion. This enables them to access their rights, entitlements, opportunities and services, both from the public and private sectors. These processes enable them to pursue viable livelihoods based on leveraging their own resources, skills and preferences. Thus, they can come out of abject poverty and not fall back into a vicious cycle. NULM believes that the program can be scaled up in a time bound manner, only if it is driven by the poor and their institutions.

PQ73. Which of the following observations emerges from the above passage?

A. There is a profusion of strong grassroots level institutions for the poor.

B. There needs to be community self-reliance, self-dependence, self-help and mutual-help.

C. There is copious availability of livelihood for the disadvantaged and marginalized groups of urban society.

D. There ought to be transparency in programme design and its implementation.

Answer: B

Exp:Options (a) and (c) are incorrect. "profusion" and "copious" both mean 'abundant quantity' or 'plentiful'. This contradicts the data in the passage. Therefore, they are incorrect observations.

Option (d) is incorrect. Lack of "transparency" as an issue has not been mentioned in the passage. Therefore, this observation lies beyond the scope of the passage.

The author observes the need for "An external, dedicated and sensitive support structure, from the national level to the city and community levels, is required to induce social mobilisation, institution building and livelihoods promotion." and "NULM believes that the program can be scaled up in a time bound manner, only if it is driven by the poor and their institutions.". This eliminates option (a), (c) and (d).

Hence, the correct answer is option (b).

PQ74. With reference to the passage, the following assumptions have been made:

1. The urban poor seek institutional support in building their own human, social and financial resources.

2. Entrepreneurship backed by social mobilisation essentially helps individuals overcome poverty.

Which of the above is/are assumption/assumptions?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Answer: B

Exp:The passage states, "An external. dedicated and sensitive support structure, from the national level to the city and community levels, is required to induce social mobilisation, institution building and livelihoods promotion. This enables them to access their rights, entitlements, opportunities and services, both from the public and private sectors. These processes enable them to pursue viable livelihoods based on leveraging their own resources, skills and preferences.". The passage makes it clear that institutional support is not in place at present. Therefore, the urban poor do not currently have access to it. Therefore, statement 1 is not a valid assumption.

Statement 2 is a valid assumption as it is supported by - "The first step in this process is motivating the urban poor to form their own institutions. They and their institutions need to be provided sufficient capacity so that they can manage the external environment, access finance, expand their skills, enterprises and assets.".

Q75. Consider the following statement and the statements that follow from it:

If the winter is severe, farmers will have a bumper crop.

1. The winter was severe and so, farmers will have a bumper crop.

2. The winter was not severe and so, farmers will not have a bumper crop.

3. The farmers had a bumper crop and so, the winter must have been severe.

4. The farmers did not have a bumper crop and so, the winter must not have been severe.

Which of these statements follow from the main statement?

A. 1 and 3 only

B. 2 and 4 only

C. 1 and 4 only

D. 2 and 3 only

Answer: C

Exp:None

Q76. A cycle wheel makes 1000 revolutions in travelling 440m. What is the diameter of the wheel?

A. 7 cm

B. 14 cm

C. 28 cm

D. 21 cm

Answer: B

Exp:

$$\text{Distance travel in 1 revolution} = \frac{440}{1000} \text{ m}$$

$$\text{Circumference} = \pi \times d = \frac{44000}{1000} \text{ cm}$$

$$d = \frac{44000 \times 7}{1000 \times 22} = 14 \text{ cm}$$

Q77. Sex ratio is defined as the number of females per 1000 males. In a place, the total inhabitants are 1935000 out of which 935000 are females. What is the sex ratio for the place?

A. 935

B. 1000

C. 1935

D. 9350

Answer: A

Exp:Total number of inhabitants = 1935000

Total number of females = 935000

$$\therefore \text{Total number of males} = 1935000 - 935000 = 1000000$$

$$\therefore \text{Sex ratio} = \frac{935000}{1000000} \times 1000 = 935$$

Q78. With A, B and C as centres, three circles are drawn such that they touch each other externally. If the sides of the ΔABC are 4 cm, 6 cm and 8 cm then what is the sum of the radii of the circle?

A. 9 cm

B. 10 cm

C. 12 cm

D. 14 cm

Answer: A

Exp:

$$= \frac{4+6+8}{2} = \frac{18}{2} = 9 \text{ cm}$$

Q79. A, B and C share Rs. 630 among themselves in such a manner that A gets $\frac{4}{5}$ th of what B gets and C gets $\frac{2}{3}$ rd of what A gets. Find C's share.

A. Rs. 120

B. Rs. 132

C. Rs. 144

D. Rs. 156

Answer: C

Exp:Let the share of B be x

= share of A = $\frac{4}{5}x$

$$\text{Share of C} = \frac{2}{3} \times \left(\frac{4}{5}x\right) = \frac{8}{15}x$$

$$= \text{Total share} = x + \frac{4x}{5} + \frac{8x}{15} = \left(\frac{15+12+8}{15}\right)x$$

$$= \frac{35}{15}x = \frac{7}{3}x$$

$$\therefore \frac{7}{3}x = 630$$

$$x = \text{Rs. } 270$$

$$\therefore \text{The share of C} = \frac{8}{15} \times 270 = \text{Rs. } 144$$

Q80. Two alloys of Aluminium and Copper with Aluminium and Copper in the ratio 1:4 and 2:5 are mixed. If the new alloy formed by mixing the two alloys contains Aluminium and Copper in the ratio of 1:3, find the ratio in which the two alloys are mixed?

A. 3 : 5

B. 5 : 7

C. 7 : 9

D. 9 : 11

Answer: B

Exp: Let x and y be the quantities of first and second alloys be mixed.

	Aluminium	Copper
Alloy 1	$\frac{x}{5}$	$\frac{4x}{5}$
Alloy 2	$\frac{2y}{7}$	$\frac{5y}{7}$

$$\therefore \frac{\frac{x}{5} + \frac{2y}{7}}{\frac{4x}{5} + \frac{5y}{7}} = \frac{1}{3}$$

$$= \frac{\frac{7x+10y}{35}}{\frac{28x+25y}{35}} = \frac{1}{3}$$

$$= 21x + 30y = 28x + 25y$$

$$= 7x = 5y$$

$$= \frac{x}{y} = \frac{5}{7}$$

$$= x : y :: 5 : 7$$