



IASBABA'S

60 DAYS PLAN

PRELIMS 2021

COMPILATIONS

CSAT - PART 2

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Q.1) A mixture of certain quantity of milk with 18 litre of water is worth 0.5 Rs per litre. If pure milk be worth 3.5 Rs per litre, the how much milk is there in the mixture?

- a) 6 litre
- b) 4 litre
- c) 3 litre
- d) 2 litre

Q.1) Solution (c)

Water is available free of cost, so its cost price is = 0

Now, according to the rule of allegation,



Therefore, water: milk = 3:0.5 = 6:1

Clearly, quantity of milk = $\frac{1}{6}$ of water, i.e. $(\frac{1}{6}) \times 18 = 3$ litre

Q.2) A dishonest milkman professes to sell his milk at cost price but he mixes it with water and there by gains 25%. The percentage of water in the mixture is?

- a) 18%
- b) 20%
- c) 25%
- d) 30%

Q.2) Solution (b)

Here the milkman gains 25% i.e. $\frac{1}{4}$

This means, For every 5 litres of milk he sells 1 litre of it contains water

So, the percentage of water in the mixture = $(\frac{1}{5}) \times 100 = 20\%$

Q.3) A shopkeeper purchased 15 kg of variety A rice at X Rs per kg and 10 kg of variety B rice at 'X+ 5' Rs per kg. The shopkeeper sold the whole quantity of variety A rice at 10% profit and that of variety B rice at 20% profit. The total selling price of variety A rice was Rs 30 more than that of variety B rice. Had the two varieties been mixed and sold at an overall profit of 20%, what would have been the selling price of the mixture per kg?

- a) Rs 23.5
- b) Rs 26.4
- c) Rs 27.25
- d) Rs 28.2

Q.3) Solution (b)

Total revenue generated by selling variety A rice = $1.1 \times 15X = 16.50X$

Total revenue generated by selling variety B rice = $1.2 \times 10(X+5) = 12X + 60$

It is given that, $16.5X - 12X - 60 = 30$

$X = 20$ Rs.

When the two varieties were mixed and sold at an overall profit of 20%, the total weight of the entire mixture = $10+15 = 25$ kg.

Total cost price of the mixture = $15 \times 20 + 10 \times 25 = 550$ Rs

Therefore, the cost price of the mixture per kg = $550/25 = \text{Rs } 22$ per kg.

It is known that the mixture was sold at a profit of 20%. Therefore, the selling price of the mixture = $1.2 \times 22 = \text{Rs } 26.40$.

Hence, option b is correct

Q.4) A water tank can hold 50 litres of water. During the time of observation, it was $\frac{3}{4}$ full, after which $\frac{1}{2}$ of the water was drained away. There was an increase in water volume by 2 litres due to rain. How much water was thereafter the observation period?

- a) 20.75 litres
- b) 19.75 litres
- c) 18.5 litres
- d) 15 litres

Q.4) Solution (a)

The initial quantity of water = $\frac{3}{4} \times 50$ litres

If half of the existing water was drained away then the remaining quantity of water

$$= \frac{3}{4} \times 50 - \frac{1}{2} \left[\frac{3}{4} \times 50 \right]$$

$$= \frac{1}{2} \left[\frac{3}{4} \times 50 \right]$$

After it rained the quantity of water will be

$$= \frac{1}{2} \left[\frac{3}{4} \times 50 \right] + 2 = \frac{83}{4} = 20.75 \text{ litres}$$

Read the following passage and answer the question that follow. Your answer to this question should be based on passage only.

Developed countries have made adequate provisions for social security for senior citizens. State insurers (as well as private ones) offer Medicare and pension benefits to people who can no longer earn. In India, with the collapse of the joint family system, the traditional shelter of the elderly has disappeared. And a State faced with a financial crunch is not in a position to provide social security. So, the working population should give serious thought to building a financial base for itself.

Q.5) Which one of the following if it were to happen, weakens the conclusion drawn in the above passage the most?

- a) The investable income of the working population, as a proportion of its total income, will grow in the future
- b) The insurance sector is underdeveloped and trends indicate that it will be extensively privatized in the future

- c) India is on a path of development that will take it to a developed country status, with all its positive and negative implications
- d) If the working population builds a stronger financial base, there will be a revival of the joint family system

Q.5) Solution (c)

The main conclusion of the paragraph is that the working population should save for its future given that the Indian state is not in a position to provide social security for its citizens. The underlying assumption is that the Indian state would not be in a position to provide social security even in the future. If option c is true, then this assumption is attacked and the conclusion is weakened.

Directions for the following 3 (three) questions:

Read the following passage and answer the questions that follow the passage. Your answer to these questions should be based on passage only.

The success of the bold direct taxation proposals contained in the Union budget for 2004-05 will have a crucial bearing on the realisation of the targeted fiscal deficit projection for the year, according to economists and tax consultants. In particular, the amnesty scheme introduced to harness black money is being seen as vital to the government's calculations. Finance minister P Chidambaram announced in his budget presentation that he was expecting to augment direct tax revenues by 15 to 16 per cent.

This has led analysts to conclude that the attainment of the government's direct taxation target would be largely dependent on widening the tax net and would also significantly depend on the success of the amnesty scheme announced to induct black money into the mainstream economy. Most tax consultants opined that the amnesty scheme would draw an extremely favourable response. "It is a tremendous opportunity."

The finance minister said that residents of metropolitan cities who owned cars, telephones and travelled abroad would be roped into tax net. The budget has also introduced an "estimated income scheme" for retail traders with a turnover less than Rs. 40 lakh. Their income would be estimated at 5 per cent of the turnover and those claiming lower incomes would be subjected to audit. "This would also serve to rope in assesses after the earlier presumptive Rs. 1,400 scheme was a failure." Another bold and much-sought-after change introduced in the budget is the abolition of taxation of dividend in the hands of the shareholder. Instead, companies would be liable to pay 20 per cent tax on dividend distributed.

Q.6) "It is tremendous opportunity." In this sentence 'It' refers to

- a) direct taxation proposals
- b) widening the tax net
- c) amnesty scheme
- d) Budget 2004-05

Q.6) Solution (c)

Most tax consultants opined that the amnesty scheme would draw an extremely favourable response.

We can clearly infer from the 2nd last sentence of the 2nd paragraph of the passage that 'the amnesty scheme' has been mentioned as 'it' in the next sentence.

Q.7) According to the passage, the success of the bold direct taxation proposals will have a bearing upon

- a) The attainment of the government's direct taxation target.
- b) Not widening the tax net.
- c) Decreasing direct tax revenues.
- d) Realisation of the targeted fiscal deficit projection.

Q.7) Solution (d)

The success of the bold direct taxation proposals contained in the Union budget for 2004-05 will have a crucial bearing on the realisation of the targeted fiscal deficit projection for the year...

We can clearly infer from the 1st sentence of the first passage that the success of the bold direct taxation proposals will have a bearing upon the realisation of the targeted fiscal deficit projection.

Q.8) What change has been introduced in the budget for 2004-05?

- a) Companies have been exempted from paying 10 percent tax on dividend.
- b) Abolition of taxation of dividend to the shareholders.
- c) To support corporate sector in particular
- d) To impose double taxation on dividend income.

Q.8) Solution (b)

Another bold and much-sought-after change introduced in the budget is the abolition of taxation of dividend in the hands of the shareholder.

We can clearly infer from the 2nd last sentence of the last paragraph of the passage that the abolition of taxation of dividend in the hands of shareholder was a major change in the budget for 2004-05.

Q.9) In a certain code language 'HORSE' is written as 71417184, then the word 'MONKEY' is coded as:

- a) 11141216425
- b) 12141310424
- c) 12151411325
- d) 12151210424

Q.9) Solution (b)

'HORSE' is written as 71417184

In alphabetical order H comes in the 8th place, O comes in the 15th place, R comes in the 18th place, S comes 19th and E comes 5th.

We are given 71417185 i.e. 1 place is reduced from the alphabetical order of the letter.

Thus, 'MONKEY' will be coded as '12141310424'.

Hence, option b is correct.

Q.10) In a certain code language, "LOYALTY" is written as "ZUMBZPM". How is "LAUGHTER" written in that code language?

- a) SFHJOMN
- b) SFUIHVBM
- c) SHFOJMK
- d) SHFOMJL

Q.10) Solution (b)

In the given first code LOYALTY is written by increasing every letter of the word by 1 letter and writing it in reverse order. i.e. $L+1 = M$, $O+1 = P$, $Y+1 = Z$, $A+1 = B$, $L+1 = M$, $T+1 = U$, $Y+1 = Z$

ZUMBZPM

Likewise, LAUGHTER will be written as SFUIHVBM

Read the following two passages and answer the items that follow. Your answer to these items should be based on the passages only.

Passage 1

Aggression is any behavior that is directed toward injuring, harming, or inflicting pain on another living being or group of beings. Generally, the victims of aggression must wish to avoid such behavior in order for it to be considered true aggression. Aggression is also categorized according to its ultimate intent. Hostile aggression is an aggressive act that results from anger, and is intended to inflict pain or injury because of that anger. Instrumental aggression is an aggressive act that is regarded as a means to an end other than pain or injury. For example, an enemy combatant may be subjected to torture in order to extract useful intelligence, though those inflicting the torture may have no real feelings of anger or animosity toward their subject. The concept of aggression is very broad, and includes many categories of behavior (e.g., verbal aggression, street crime, child abuse, spouse abuse, group conflict, war, etc.). A number of theories and models of aggression have arisen to explain these diverse forms of behavior, and these theories/models tend to be categorized according to their specific focus. The most common system of categorization groups the various approaches to aggression into three separate areas, based upon the three key variables that are present whenever any aggressive act or set of acts is committed. The first variable is the aggressor him/herself. The second is the social situation or circumstance in which the aggressive acts occur. The third variable is the target or victim of aggression.

Regarding theories and research on the aggressor, the fundamental focus is on the factors that lead an individual (or group) to commit aggressive acts. At the most basic level, some argue that aggressive urges and actions are the result of inborn, biological factors. Sigmund Freud (1930) proposed that all individuals are born with a death instinct that predisposes us to a variety of aggressive behaviours, including suicide (self-directed aggression) and mental illness (possibly due to an unhealthy or unnatural suppression of aggressive urges). Other influential perspectives supporting a biological basis for aggression conclude that humans evolved with an abnormally low neural inhibition of aggressive impulses (in comparison to other species), and that humans possess a powerful instinct for property accumulation and territorialism. It is proposed that this instinct accounts for hostile behaviours ranging from minor street crime to world wars. Hormonal factors also appear to play a significant role in fostering aggressive tendencies. For example, the hormone testosterone has been shown to increase aggressive behaviours when injected into animals. Men and women convicted of violent crimes also possess significantly higher levels of testosterone than men and women convicted of non-violent crimes. Numerous studies comparing different age groups, racial/ethnic groups, and

cultures also indicate that men, overall, are more likely to engage in a variety of aggressive behaviours (e.g., sexual assault, aggravated assault, etc.) than women. One explanation for higher levels of aggression in men is based on the assumption that, on average, men have higher levels of testosterone than women.

Q.11) "An enemy combatant may be subjected to torture in order to extract useful intelligence, though those inflicting the torture may have no real feelings of anger or animosity toward their subject." Which one of the following best explicates the larger point being made by the author here?

- a) In certain kinds of aggression, inflicting pain is not the objective, and is no more than a utilitarian means to achieve another end.
- b) When an enemy combatant refuses to reveal information, the use of torture can sometimes involve real feelings of hostility.
- c) Information revealed by subjecting an enemy combatant to torture is not always reliable because of the animosity involved.
- d) The use of torture to extract information is most effective when the torturer is not emotionally involved in the torture.

Q.11) Solution (a)

As the line indicates, torturing an enemy combatant for intelligence may be just a means to an end.

Q.12) All of the following statements can be seen as logically implied by the arguments of the passage except

- a) Freud's theory of aggression proposes that aggression results from the suppression of aggressive urges.
- b) The Freudian theory of suicide as self-inflicted aggression implies that an aggressive act need not be sought to be avoided in order for it to be considered aggression.
- c) A common theory of aggression is that it is the result of an abnormally low neural regulation of testosterone.
- d) If the alleged aggressive act is not sought to be avoided, it cannot really be considered aggression.

Q.12) Solution (c)

The passage states that an abnormally low neural regulation of aggressive impulses (not testosterone) in humans accounts for hostile behaviours.

Other statements are implied from the line "Sigmund Freud (1930) proposed that all individuals are born with a death instinct that predisposes us to a variety of aggressive behaviours, including suicide (self-directed aggression)..."

Passage 2

174 incidents of piracy were reported to the International Maritime Bureau last year, with Somali pirates responsible for only three. The rest ranged from the discreet theft of coils of rope in the Yellow Sea to the notoriously ferocious Nigerian gunmen attacking and hijacking oil tankers in the Gulf of Guinea, as well as armed robbery off Singapore and the Venezuelan coast and kidnapping in the Sundarbans in the Bay of Bengal. For [Dr. Peter] Lehr, an expert on modern-day piracy, the phenomenon's history should be a source of instruction rather than entertainment, piracy past offering lessons for piracy present.

But, where does piracy begin or end? According to St Augustine, a corsair captain once told Alexander the Great that in the forceful acquisition of power and wealth at sea, the difference between an emperor and a pirate was simply one of scale. By this logic, European empire-builders were the most successful pirates of all time. A more eclectic history might have included the conquistadors, Vasco da Gama and the East India Company. But Lehr sticks to the disorganised small fry, making comparisons with the renegades of today possible. The main motive for piracy has always been a combination of need and greed. Why toil away as a starving peasant in the 16th century when a successful pirate made up to £4,000 on each raid? Anyone could turn to freebooting if the rewards were worth the risk.

Increased globalisation has done more to encourage piracy than suppress it. European colonialism weakened delicate balances of power, leading to an influx of opportunists on the high seas. A rise in global shipping has meant rich pickings for freebooters. Lehr writes: "It quickly becomes clear that in those parts of the world that have not profited from globalisation and modernisation, and where abject poverty and the daily struggle for survival are still a reality, the root causes of piracy are still the same as they were a couple of hundred years ago."

Q.13) "A more eclectic history might have included the conquistadors, Vasco da Gama and the East India Company. But Lehr sticks to the disorganised small fry." From this statement we can infer that the author believes that:

- a) Colonialism should be considered an organised form of piracy.
- b) The disorganised piracy of today is no match for the organised piracy of the past.
- c) Lehr does not assign adequate blame to empire builders for their past deeds.
- d) Vasco da Gama and the East India Company laid the ground for modern piracy.

Q.13) Solution (a)

Note the context in which the given statement is made. In paragraph 2, the author asks where piracy begins or ends and says "European empire-builders were the most successful pirates of all time". So, the author believes Colonialism should be considered an organised form of piracy.

Hence, option 'a' is correct.

Q.14) "Why toil away as a starving peasant in the 16th century when a successful pirate made up to £4,000 on each raid?" In this sentence, the author's tone can best be described as being:

- a) Facetious, about the hardships of peasant life in medieval England.
- b) Ironic, about the reasons why so many took to piracy in medieval times.
- c) Analytical, to explain the contrasts between peasant and pirate life in medieval England.
- d) Indignant, at the scale of wealth successful pirates could amass in medieval times.

Q.14) Solution (b)

Clearly, the author's tone here is sardonic/ironic; highlighting how much more rewarding it was to engage in piracy than toiling away as a peasant in medieval times.

Q.15) In a certain code language,

'3a, 2b, 7c' means 'Truth is Eternal';

'7c, 9a, 8b, 3a' means 'Enmity is not Eternal'

'9a, 4d, 2b, 8b' means 'Truth does not perish'.

Which of the following means 'enmity' in that language?

- a) 3a
- b) 7c
- c) 8b
- d) 9a

Q.15) Solution (c)

In the second and third statements, the common code is '9a' and the common word is 'not'.

So, '9a' means 'not'.

In the first and second statements, the common codes are '7c' and '3a' and the common words are 'is' and 'Eternal'.

So, in the second statement, '8b' means 'enmity'.

Read the following 2 (two) passages and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

The dominant modern belief is that the soundest foundation of peace would be universal prosperity. One may look in vain for historical evidence that the rich have regularly been more peaceful than the poor, but then it can be argued that they have never felt secure against the poor; that their aggressiveness stemmed from fear; and that the situation would be quite different if everybody were rich.

Q.16) It can be inferred from the above passage

- a) That a lot of aggression in the world stems from the desire of the haves to defend themselves against the have-nots.
- b) Universal prosperity as a fool-proof measure of peace can no longer be accepted.
- c) Both a and b
- d) Neither a nor b

Q.16) Solution (a)

The option b is opposite to what the argument is conveying.

Option a can be inferred. According to the argument, a lot of aggression has stemmed because the rich want to defend themselves against the poor. In other words, the aggression has stemmed from the desire of the haves to defend themselves against the have-nots.

Passage 2

The effect produced on the mind by travelling depends entirely on the mind of the traveller and on the way he conducts himself. The chief idea of one very common type of traveller is to see as many objects of interest as he possibly can. If he can say after returning home that he has seen such and such temple, castle, picture gallery, or museum, he is perfectly satisfied. Far different is the effect of travels upon those who leave their country with a mind prepared by culture to

feel intelligent admiration for all the beauties of nature and art to be found in foreign lands. When they visit a new place, instead of hurrying from temple to museum to picture gallery, they allow the spirit of the place to sink into their minds, and only visit such monuments as the time they have at their disposal allows them to contemplate without irreverent haste.

Q.17) It can be inferred from the above passage that

- a) the writer prefers the second type of traveller
- b) the first type of traveller is the lay traveller who does not understand the worth of any place he travels to
- c) the objective of the second type of traveller is not to see much, but to see well
- d) All of the above

Q.17) Solution (c)

According to the passage, the latter kind of travellers only visits such monuments as the time they have at their disposal allows them to contemplate without irreverent haste.

Option a is incorrect as the preference of the writer is not the main subject of focus.

Option b is way too harsh. This cannot be inferred from the passage.

Option c correctly describes the second kind of travellers.

Thus, option c is the correct

Q.18) From a container of milk, 5 litres of milk is replaced with 5 litres of water. This process is repeated. Thus in two attempts, the ratio of milk and water became 81:19. The initial amount of milk in the container was

- a) 50 litres
- b) 45 litres
- c) 40 litres
- d) 25 litres

Q.18) Solution (a)

Remaining milk = Initial concentration $(1 - \text{Quantity taken out}/\text{Total quantity})$

Concentration of milk in the final mixture = $81/(81+19) = 81/100$

Let initially, milk in the container = x litres

$$81 = 100(1-5/x)^2$$

$$81/100 = (1-5/x)^2$$

$$(1-5/x)^2 = (9/10)^2$$

$$1-5/x = 9/10$$

On solving, $x = 50$ litres

Therefore, the initial quantity of milk in the container was 50 litres.

Q.19) A mixture of 12 kg of wheat flour costing Rs 16 per kg and 4 kg of corn flour costing Rs 2 per kg is sold at Rs 16 per kg. What is the profit made in selling 40 kg of the mixture?

- a) Rs 140
- b) Rs 280
- c) Rs 300
- d) Rs 420

Q.19) Solution (a)

The cost price of the mixture per kg = $[(12 \times 16) + (4 \times 2)] / 12 + 4 = \text{Rs } 12.5$

Selling price of the mixture per kg = Rs 16

Profit made on selling 1 kg of mixture = $16 - 12.5 = \text{Rs } 3.5$

Profit made on selling 40 kg of mixture = $40 \times 3.5 = \text{Rs } 140$

Q.20) Sudarma went to buy three types of stationery products, each of them were priced at Rs 5, Rs 2, and Rs 1 respectively. He purchased all three types of products in more than one quantity and gave Rs 20 to the shopkeeper. Since the shopkeeper had no change with him; he gave Sudarma three more products of price Rs 1 each. Find out the number of products with Sudarma at the end of the transaction.

- a) 8
- b) 12
- c) 11
- d) 10

Q.20) Solution (d)

Let x , y , z be the number of items purchased by Sudarma of price Rs 5, Rs 2, and Rs 1 respectively.

$$\text{So, } 5x+2y+z = 20$$

Since the shopkeeper had no change with him; he gave Sudarma three more products of price Rs 1 each. i.e. Sudarma purchased items worth Rs 17

$$5x+2y+z = 17$$

He purchased all three types of products in more than one quantity,

If he purchases three items of Rs 5, he cannot purchase 2 items of Rs 2 and 1 item of Rs 1

So, he purchases 2 items worth Rs 5.

If Sudarma purchases 3 items worth Rs 2, then he cannot purchase more than 1 item of Rs 1.

Hence, he must have purchased 2 items of Rs 2 and 3 items of Rs 1.

The number of items Sudarma will have at the end of the transaction = $2+2+3+3 = 10$ (due to no change)

Directions for the following questions:

Read the following 2 (two) passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

Urbanisation is a positive phenomenon provided the cities are able to harness its potential. A recently public published UN-Habitat global report on human settlements shows that not many cities in developing countries such as India have managed to do this. Indian cities struggle to manage the swelling numbers. They tend to have inadequate infrastructure poor mobility and a lack of affordable housing. The challenge they face is twofold, efforts to distribute growth across urban centres have been inadequate and the urban planning practices are outdated. Much attention is paid to mega cities, leaving the smaller cities largely unattended. Of the 5161, urban centres, as the eleventh five year plan points out, only 1500 have some form of plan to manage their growth. With quality of life suffering and the smaller cities, more people tend to move to the metros, burdening them further. Although, the need for developing small and medium-size towns was highlighted as early as 1988, by the first National Commission on

Urbanisation, not much has happened on that front. As for the bigger cities, the additional attention and the presence of a master plan have not necessarily meant improvement, managing a city through a single unified master plan has failed to deliver.

Q.21) It is implied in the passage that

- a) Cities India have not been able to reap the real benefits of urbanisation due to lack of proper planning
- b) Urbanisation is not a desirable phenomenon
- c) Urbanisation offers the solution for all the problems that smaller cities face
- d) None of the above

Q.21) Solution (a)

The answer is hidden in the first two lines. The cities of developing countries have not actually made use of the concept of urbanisation.

Hence option c is the correct answer.

Passage 2

Many people like to eat pizza, but not everyone knows how to make it. Making the perfect pizza can be complicated, but there are lots of ways for you to make a more basic version at home. When you make pizza, you must begin with the crust. The crust can be hard to make. If you want to make the crust yourself, you will have to make dough using flour, water, and yeast. You will have to knead the dough with your hands. If you do not have enough time to do this, you can use a prepared crust that you buy from the store.

After you have chosen your crust, you must then add the sauce. Making your own sauce from scratch can take a long time. You have to buy tomatoes, peel them, and then cook them with spices. If this sounds like too much work, you can also purchase jarred sauce from the store. Many jarred sauces taste almost as good as the kind you make at home.

Now that you have your crust and your sauce, you need to add the cheese. Cheese comes from milk, which comes from cows. Do you have a cow in your backyard? Do you know how to milk the cow? Do you know how to turn that milk into cheese? If not, you might want to buy cheese from the grocery store instead of making it yourself.

When you have the crust, sauce, and cheese ready, you can add other toppings. Some people like to put meat on their pizza, while other people like to add vegetables. Some people even like to add pineapple! The best part of making a pizza at home is that you can customize it by adding

your own favourite ingredients.

Q.22) Which of the following words best describes how the author feels about making a pizza from scratch?

- a) Helpful
- b) Understanding
- c) Enthusiastic
- d) Negative

Q.22) Solution (d)

In paragraph 2 the author writes, "If you want to make the crust yourself, you will have to make dough using flour, water, and yeast. You will have to knead the dough with your hands." In paragraph 3 the author writes, "Making your own sauce from scratch can take a long time. You have to buy tomatoes, peel them, and then cook them with spices." In paragraph 4 the author writes, "Do you have a cow in your backyard? Do you know how to milk the cow? Do you know how to turn that milk into cheese?" In all of these quotations, the author talks about how hard it is to make a pizza from scratch. The author uses negative language to highlight this difficulty. This lets us know that the author is feels negative about making pizza from scratch. Choice (d) is correct. Choices (a), (b), and (c) all contain positive words. However, the author is negative about making a pizza from scratch. Therefore these choices are incorrect.

Q.23) Three containers A, B and C are having mixtures of milk and water in the ratio of 1:5, 3:5, 5:7 respectively. If the capacities of the containers are in the ratio 5:4:5, find the ratio of milk to water, if all the three containers are mixed together.

- a) 53:113
- b) 53:115
- c) 54:115
- d) 55:115

Q.23) Solution (b)

Using the weighted average formula we can calculate the weight of milk,

$$\Rightarrow [5*(1/6) + 4*(3/8) + 5*(5/12)]/(5+4+5) = 53/168$$

$$\text{So weight of water} = 168 - 53 = 115$$

Therefore, the ratio of milk to water = 53:115

Q.24) A vessel contains a mixture of milk and water in the respective ratio of 5:1. 24 litre of the mixture was taken out and replaced with the same quantity of milk so that the resultant ratio between the quantities of milk and water in the mixture was 13:2 respectively. If 15 litre of the mixture is again taken out from the vessel, what is the resultant quantity of milk (in litre) in the mixture?

- a) 89
- b) 91
- c) 78
- d) 93

Q.24) Solution (b)

Initial ratio of M:W = 5:1

24 Litres is removed from mix i.e. 4 Litres of water is removed and 20 Litres of milk is removed

Then 24 Litres of milk is added.

Therefore, effectively 4 Litres of milk is added in the mixture.

Now, the ratio of M:W becomes 13:2

Let the initial quantity of milk be '5x' L and water be 'x' L

Therefore, $(5x + 4)/(x - 4) = 13/2$

→ x = 20 litres

Therefore, initially, milk = 100 L and water = 20 L

After first replacement, Milk = 100+4 = 104 litres and water = 16 litres

Now, we remove 15 litres from the mixture in the ratio of M:W = 13:2

Therefore, the remaining quantity of milk = 104-13 = 91 litres

Q.25) If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?

- a) WeDNeSdAY
- b) frIdAY
- c) WEdnESdAY
- d) fRIdAY

Q.25) Solution (b)

The small letters are b, d, f, h, j, l, n, p, r, t, v, x, z.

The third day from tuesday will be friday and code will be frIdAY.

Read the following passage and answer the question that follow. Your answer to this question should be based on passage only.

In the world today we make health an end in itself. We have forgotten that health is really means to enable a person to do his work and does it well. A lot of modern medicine and this includes many patients as well as many physicians pays very little attention to health but very much attention to those who imagine that they are ill. Our great concern with health is shown by the medical columns in newspapers. The health articles in popular magazines and the popularity of television programmes and all those books on medicine. We talk about health all the time. Yet for the most part the only result is more people with imaginary illness. The healthy man should not be wasting time talking about health: he should be using health for work. The work does the work that good health possible.

Q.26) Modern medicine is primarily concerned with

- a) promotion of good health
- b) people suffering from imaginary illness
- c) people suffering from real illness
- d) increased efficiency in work

Q.26) Solution (b)

A lot of modern medicine and this includes many patients as well as many physicians pays very little attention to health but very much attention to those who imagine that they are ill. This statement supports our question. Hence Option b is the correct answer.

Q.27) In a certain code language,

'pit na som' means 'bring me water'
'na jo tod' means 'water is life'
'tub od pit' means 'give me toy'

'jo lin kot' means 'life and death'

Which of the following represents 'is' in that language?

- a) jo
- b) na
- c) tod
- d) lin

Q.27) Solution (c)

In statements A and B, the common code word is 'na' and the common word is 'water'.

So, 'na' means 'water'.

In statements B and D, the common code word is 'jo' and the common word is 'life'.

So, 'jo' means 'life'.

Thus, in statements B, 'tod' represents 'is'.

Q.28) In certain code language, 'FOX' is coded as '108' and 'SOUP' is coded as '148'. How will 'UPSIDE' be coded as in that language?

- a) 528
- b) 590
- c) 385
- d) 494

Q.28) Solution (a)

For the word 'FOX',

$[(27 - 6) + (27 - 15) + (27 - 24)] \times \text{Number of letter}$

$= (21 + 12 + 3) \times 3$

$= 36 \times 3 = 108$

For the word 'SOUP',

$[(27 - 19) + (27 - 15) + (27 - 21) + (27 - 16)] \times \text{Number of letter}$

$= (8 + 12 + 6 + 11) \times 4$

$= 37 \times 4 = 148$

Similarly,

For the word 'UPSIDE',

$[(27 - 21) + (27 - 16) + (27 - 19) + (27 - 9) + (27 - 4) + (27 - 5)] \times \text{Number of letter}$

$= (6 + 11 + 8 + 18 + 23 + 22) \times 6$

$= 88 \times 6 = 528$

Therefore, the correct answer is option a.

Q.29) In the series AABABCABCDABCDE....which letter occupies the 100th position?

- a) H
- b) J
- c) I
- d) K

Q.29) Solution (c)

A AB ABC ABCD ABCDE...

The given series contains 1, 2, 3, 4.....consecutive alphabets starting from A

So, up to 13th term, the number of alphabets = $n(n+1)/2 = 13(13+1)/2 = 91$

Again it will start from alphabet A and therefore, 100th alphabet will be I

Hence option c is incorrect.

Q.30) In a certain code language

'134' means 'good and tasty'

'478' means 'see good pictures'

'729' means 'pictures are faint'

Which of the following digits stands for 'see'?

- a) 1
- b) 4
- c) 8
- d) 7

Q.30) Solution (c)

In the first and second statements, the common code digit is '4' and the common word is 'good'.

So, '4' stands for 'good'.

In the second and third statements, the common code digit is '7' and the common word is 'pictures'.

So, '7' means 'pictures'.

Thus, in the second statements, '8' means 'see'.

Q.31) The average age of three boys is 15 years and their ages are in proportion 3:5:7. What is the age in years of the youngest boy?

- a) 15 years
- b) 18 years
- c) 14 years
- d) 9 years

Q.31) Solution (d)

$$3x + 5x + 7x = 45$$

$$x = 3$$

$$3x = 9$$

Therefore the age of youngest boy is 9 years

Q.32) The average of 15 numbers is 15. If the average of first five numbers is 14 and that of other 9 numbers is 16, then find the middle number.

- a) 9

- b) 11
- c) 12
- d) 14

Q.32) Solution (b)

Average of 15 numbers = 15, Average of 5 numbers = 14, Average of 9 numbers = 16

Average = Total numbers/15

15 = Total Numbers/15

Therefore, total numbers = $15 \times 15 = 225$

Middle number = (Total numbers) – [(Average of 5 numbers \times 5) + (Average of 9 numbers \times 9)]

= $(225) - [(14 \times 5) + (16 \times 9)]$

= $(225) - [214]$

= 11

Therefore, the middle number is 11

Q.33) In an island, there are four men for every three women and five children for every three men. How many women are there in the island if it has 1000 children?

- a) 450
- b) 600
- c) 750
- d) 900

Q.33) Solution (a)

For 5 children, 3 men are there.

For 1 child, $\frac{3}{5}$ man will be there.

So, for 1000 child, $\frac{3}{5} \times 1000$ men will be there which is 600.

Now, for 4 men, 3 women are there.

For 1 man, $\frac{3}{4}$ women will be there.

So, for 600 men, $\frac{3}{4} \times 600 = 450$ women will be there.

Q.34) When a student weighing 45 kg left a class, the average weight of the remaining 59 students increased by 200g. What is the average weight of the remaining 59 students?

- a) 57 kg
- b) 58 kg
- c) 59 kg
- d) 62 kg

Q.34) Solution (b)

Let the average weight of the 59 students be X. Therefore, the total weight of the 59 of them will be 59X

The questions states that when the weight of this student who left is added, the total weight of the class = 59X + 45

When this student is also included, the average weight decreases by 0.2 kg

$$59X + 45 / 60 = X - 0.2$$

$$\Rightarrow 59X + 45 = 60X - 12$$

$$\Rightarrow 45 + 12 = 60X - 59A$$

$$\Rightarrow X = 57$$

Q.35) Study the problem statement given and answer the questions that follow.

A is B's sister. C is B's mother. D is C's father. E is D's mother.

How is B related to D?

- a) Grand daughter
- b) Grand son
- c) Wife
- d) Can't be determined

Q.35) Solution (d)

Gender of B is not specified so the relationship between B and D can't be established.

Q.36) Introducing a boy, the girl said "He is the only son of my father's mother's only daughter-in-law". How is the girl related to the boy?

- a) Sister
- b) Cousin
- c) Niece
- d) Aunt

Q.36) Solution (a)

Mother's only daughter-in-law is wife.

Father's wife is mother.

Only son of my mother has to be my brother. (Also the narrator of this statement has to be female, which is the case in the question)

The boy is girl's brother.

Hence the girl is the boy's sister.

Q.37) Age of mother 10 years ago was 3 times the age of her son. After 10 years, mother's age will be twice that of his son. Find the ratio of their present ages.

- a) 11:7
- b) 9:5
- c) 7:4
- d) 7:3

Q.37) Solution (d)

We are given that; age of mother 10 years ago was 3 times the age of her son

So, let age of son be x and as mother's age is 3 times the age of her son, let it be $3x$, three years ago.

At present: Mother's age will be $(3x + 10)$ and son's age will be $(x + 10)$

After 10 years: Mother's age will be $(3x + 10) + 10$ and son's age will be $(x + 10) + 10$

Mother's age is twice that of son

$$(3x + 10) + 10 = 2[(x + 10) + 10]$$

$$(3x + 20) = 2[x + 20]$$

Solving the equation, we get $x = 20$

We are asked to find the present ratio.

$$(3x + 10) : (x + 10) = 70 : 30 = 7 : 3$$

Q.38) The average marks of four subjects is 120. If 33 were misread as 13 during the calculation, what will be the correct average?

- a) 125
- b) 130
- c) 132
- d) 135

Q.38) Solution (a)

$$\text{Correct average} = 120 + ((33-13)/4) = 120 + 5 = 125$$

Average given is 120. Difference of 33 and 13 is 20. That means 20 must be added to total. Then average of 20 is 5 (because there are 4 subjects) and so 5 must be added to average i.e. correct average = $120 + 5 = 125$.

Q.39) In a family of six persons, L, M, N, F, P, Q, there are two married couples. F is grandmother of L and mother of M. N is wife of M and mother of Q. Q is the grand-daughter of P. How many male members are there in the family?

- a) 1
- b) 2
- c) 3
- d) Can't be determined

Q.39) Solution (d)

Here, the gender of L cannot be determined.

Q.40) One year ago, ratio of ages of Harish and Pratap was 5:6 respectively. After 4 years, this ratio becomes 6:7. How old is Pratap?

- a) 25 years
- b) 26 years
- c) 31 years
- d) 35 years

Q.40) Solution (c)

We are given that age ratio of Harish: Pratap = 5:6

Harish's age = $5x$ and Pratap's age = $6x$

One year ago, their age was $5x$ and $6x$. Hence at present, Harish's age = $5x + 1$ and Pratap's age = $6x + 1$

After 4 years,

Harish's age = $(5x + 1) + 4 = (5x + 5)$

Pratap's age = $(6x + 1) + 4 = (6x + 5)$

After 4 years, this ratio becomes 6:7. Therefore,

$$(5x + 5) / (6x + 5) = 6 / 7$$

$$7(5x + 5) = 6(6x + 5)$$

$$X = 5$$

Pratap's present age = $(6x + 1) = (6 \times 5 + 1) = 31$ years

Harish's present age = $(5x + 1) = (5 \times 5 + 1) = 26$ years

Q.41) Mother is aged three times more than his daughter Sona. After 8 years she would be two and half times of Sona's age. After further 8 years, how many times would she be of Sona's age?

- a) 2 times
- b) $2 \frac{1}{2}$ times

- c) $2\frac{2}{3}$ times
- d) 3 times

Q.41) Solution (a)

Let the present age of Sona be 'X' years,

Then her mother's present age = $(X+3X) = 4X$ years

Therefore, $(4X+8) = \frac{5}{2}(X+8)$

$$8X + 16 = 5X + 40$$

$$3X = 24$$

$$X = 8$$

Hence, required ratio = $(4X+16)/(X+16) = 2$

Q.42) Sanjith plays cricket for a club and has a certain average for 9 innings. In the tenth innings, he scores 100 runs thereby increasing his average by 8 runs. His new average is?

- a) 22
- b) 28
- c) 30
- d) 32

Q.42) Solution (b)

Let Sanjith's average be X for 9 innings. So, Sanjith scored 9X run in 9 innings.

In the 10th inning, he scored 100 runs then average became (X+8). And he scored $(X+8) \times 10$ runs in 10 innings.

Now,

$$\Rightarrow 9x + 100 = 10x(X+8)$$

$$\text{Or, } 9X + 100 = 10X + 80$$

$$\text{Or, } X = 100 - 80$$

$$\text{Or, } X = 20$$

New average = $(X+8) = 28$ runs.

Q.43) Teacher took exam for English; average for the entire class was 80 marks. If we say that 10% of the students scored 95 marks and 20% scored 90 marks then calculate average marks of the remaining students of the class

- a) 60
- b) 65
- c) 70
- d) 75

Q.43) Solution (d)

Let's assume that total number of students in class is 100 and required average be X.

Then from the given statement we can calculate:

$$(10 \times 95) + (20 \times 90) + (70 \times X) = (100 \times 80)$$

$$\Rightarrow 70X = 8000 - (950 + 1800) = 5250$$

$$\Rightarrow X = 75.$$

Q.44) Find the average increase rate if increase in the population in the first year is 30% and that in the second year is 60%.

- a) 54
- b) 56
- c) 60
- d) 40

Q.44) Solution (a)

Let the population at the beginning was 100.

Then, at the end of 1st year = 130

At the end of 2nd year = $130 + 60\% \text{ of } 130 = 130 + 78 = 208.$

So, there is net increase of 108 in two years which 108% more than that of the original. Therefore,

average rate of increase is 54%.

Q.45) Mr and Mrs Raj have three children - A, B and C, all of whom were born in different cities. A is 2 years elder to B. Mr Raj was 30 years of age when C was born in Hyderabad, while Mrs Raj was 28 years of age when B was born in Bangalore. If C was 5 years of age when A was born in Mumbai, then what were the ages of Mr and Mrs Raj respectively at the time of A's birth?

- a) 35 years, 26 years
- b) 30 years, 21 years
- c) 37 years, 28 years
- d) 38 years, 25 years

Q.45) Solution (a)

It is given that A is 2 years elder to B and C was 5 years of age when A was born in Mumbai. Hence, we can say that C is the eldest and B is the youngest.

Mrs Raj was 28 years of age when B was born in Bangalore. Hence, at the time of A's birth Mrs Raj would have been two years younger i.e. $28 - 2 = 26$ years old.

Mr Raj was 30 years of age when C was born. Hence, at the time of A's birth Mr Raj would have been 5 years older i.e. $30 + 5 = 35$ years old.

Hence, option (a) is correct.

Direction for the following question:

Read the following passage and answer the question that follows the passage.

Speech is great blessings but it can also be great curse, for while it helps us to make our intentions and desires known to our fellows, it can also if we use it carelessly, make our attitude completely misunderstood. A slip of the tongue, the use of unusual word, or of an ambiguous word, and so on, may create an enemy where we had hoped to win a friend. Again, different classes of people use different vocabularies, and the ordinary speech of an educated may strike an uneducated listener as pompous. Unwittingly, we may use a word which bears a different meaning to our listener from what it does to men of our own class. Thus speech is not a gift to use lightly without thought, but one which demands careful handling. Only a fool will express himself alike to all kinds and conditions to men.

Q.46) If one used the same style of language with everyone, one would sound

- a) flat
- b) boring
- c) foolish
- d) pompous

Q.46) Solution (c)

Read carefully the last line of the paragraph -"only a fool will express himself ALIKE to all kinds and conditions to men"

Q.47) A joint family consists of members whose ages are in A.P., the common difference being 3 months. If the youngest member of the family is just 7 years old and the sum of the ages of all the members is 250 years, then the number of members in the joint family is

- a) 25
- b) 22
- c) 30
- d) 35

Q.47) Solution (a)

We know the sum of AP series formula, $S_n = \frac{n}{2}[2a + (n-1)d]$

$$250 = \frac{n}{2} [2 \times 7 + (n-1)(\frac{3}{12})].$$

$$\Rightarrow 250 \times 8 = n[56 + (n-1)] \Rightarrow 2000 = 56n + n^2 - n$$

$$n^2 + 55n - 2000 = 0 \Rightarrow (n+80)(n-25) = 0.$$

Solving this we get, $n = -80$, which is not possible and $n = 25$, which is the correct answer.

Q.48) Mr and Mrs Raj have three children - A, B and C, all of whom were born in different cities. A is 2 years elder to B. Mr Raj was 30 years of age when C was born in Hyderabad, while Mrs Raj was 28 years of age when B was born in Bangalore. If C was 5 years of age when A was born in Mumbai, then what were the ages of Mr and Mrs Raj respectively at the time of A's birth?

- a) 35 years, 26 years

- b) 30 years, 21 years
- c) 37 years, 28 years
- d) 38 years, 25 years

Q.48) Solution (a)

It is given that A is 2 years elder to B and C was 5 years of age when A was born in Mumbai. Hence, we can say that C is the eldest and B is the youngest.

Mrs Raj was 28 years of age when B was born in Bangalore. Hence, at the time of A's birth Mrs Raj would have been two years younger i.e. $28 - 2 = 26$ years old.

Mr Raj was 30 years of age when C was born. Hence, at the time of A's birth Mr Raj would have been 5 years older i.e. $30 + 5 = 35$ years old.

Hence, option a is correct.

Q.49) A is the daughter of C while C and D are sisters to one another. S is the mother of D. If R is the son of S, which of the following statements is correct?

- a) D is the grandfather of A
- b) R is the maternal uncle of A
- c) R is the cousin of A
- d) S is the brother of C

Q.49) Solution (b)

C and D are sisters to one another and A is the son of C. Hence, C is the mother of D, therefore, S is maternal grandfather of A. As R is the son of S. Hence, R is the maternal uncle of A.

Q.50) Ten years ago, the ages of the members of a joint family of eight people added up to 231 years. Three years later, one member died at the age of 60 years and a child was born during the same year. After another three years, one more member died, again at 60, and a child was born during the same year. The current average age of this eight-member joint family is nearest to

- a) 24 years
- b) 26 years
- c) 28 years

d) 30 years

Q.50) Solution (a)

Ten years ago, the total age of the family is 231 years.

Seven years ago, (Just before the death of the first person), the total age of the family would have been $231 + 8 \times 3 = 231 + 24 = 255$.

After the death of one member and the birth of a child, the total age is 195 years.

Four years ago, after the death of one member and the birth of another child, the total age of the family is $195 + 24 - 60 = 159$ years.

The current total age of the family is $= 8 \times 4 + 159 = 191$ years

The average age is $191/8 = 23.875$ years ≈ 24 years (approx.)

Read the following passages and answer the question that follows the passage. Your answer to these questions should be based on passage only.

Passage 1

Developed countries have made adequate provisions for social security for senior citizens. State insurers (as well as private ones) offer Medicare and pension benefits to people who can no longer earn. In India, with the collapse of the joint family system, the traditional shelter of the elderly has disappeared. And a State faced with a financial crunch is not in a position to provide social security. So, the working population should give serious thought to building a financial base for itself.

Q.51) Which one of the following if it were to happen, weakens the conclusion drawn in the above passage the most?

- a) The investable income of the working population, as a proportion of its total income, will grow in the future
- b) The insurance sector is underdeveloped and trends indicate that it will be extensively privatized in the future
- c) India is on a path of development that will take it to a developed country status, with all its positive and negative implications
- d) If the working population builds a stronger financial base, there will be a revival of the joint family system

Q.51) Solution (c)

The main conclusion of the paragraph is that the working population should save for its future given that the Indian state is not in a position to provide social security for its citizens. The underlying assumption is that the Indian state would not be in a position to provide social security even in the future. If option c is true, then this assumption is attacked and the conclusion is weakened.

Passage 2

Until the end of his first year at school, Cyril retained many of the pleasures and pursuits he had brought with him from home, and he kept an old interest in butterflies and fossils. His grandmother had presented him with a fine bird's eggs cabinet, but he could never bring himself to risk in climbing trees. Once or twice he dissected dead birds from sheer determination to overcome his horror of the operation. Probably it was his envy of those physically unlike himself that brought on a phase during which he drew massive athletes with thick necks and square shoulders. Again he pitied himself for what he could never be.

Q.52) The reason Why Cyril made drawings of athletes was that

- a) though he admired them, he lacked a fine physique himself
- b) he loved violent exercises
- c) athletics was a passion with him
- d) he had to complete an assignment

Q.52) Solution (a)

Refer to the last 2 lines of the passage.

Q.53) There are 4 members in a committee. If one of them is replaced by a younger member such that the average age of the committee is as it was 6 years ago. The new member is how many years younger than the member replaced?

- a) 42 years
- b) 24 years
- c) 6 years
- d) None of the above

Q.53) Solution (b)

Let the present average age of committee is x years. So, the total age is $4x$ years.

Let the age of the person replaced is y years and that of the new member is z years. According to the question

$$(4x - y + z)/4 = (x - 6)$$

$$4x - y + z = 4x - 24$$

$$y - z = 24$$

Q.54) A group of eight students are experimenting in the laboratory. If the average reading of eight students is 35.5, the average reading of first two students is 28 and the average reading of next three students is 36, the reading of 6th student is 8 more than the seventh one and the eighth one is 8 more than the sixth one, then find the reading of the sixth student

- a) 40
- b) 49
- c) 56
- d) 39

Q.54) Solution (a)

Sum of readings of all 8 students = $35.5 \times 8 = 284$

Sum of readings of first two students = $2 \times 28 = 56$

Sum of readings of next three students = $3 \times 36 = 108$

So, sum of last three readings = $284 - 56 - 108 = 120$

Let, the reading of 6th student be x

According to the question,

$$x + (x - 8) + (x + 8) = 120$$

$$3x = 120$$

$$x = 40$$

Therefore, the reading of sixth student = 40

So, option a is the correct answer.

Q.55) The average age of 3 children in a family is 20% of the average age of the father and the eldest child. The total age of the mother and the youngest child is 39 years. If the father's age is 26 years, what is the age of the second child?

- a) 20 years
- b) 15 years
- c) 18 years
- d) Can't be determined

Q.55) Solution (d)

Let 'A' be the age of the eldest son. 'B' be the age of the second son, 'C' be the age of the youngest son, 'F' be the age of the father and 'M' be the age of the mother.

Therefore, $20/100(F+A/2) = A+B+C/3$

$\Rightarrow 3F = 7A + 10B + 10C$ and $M+C = 39$

We know that, $F = 26$ years, thus, $7A + 10B + 10C = 78$ and $M+C = 39$

There are 4 variables and two equations, thus the value of B cannot be determined.

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Ever since the Centre and the States passed the landmark legislation in 2016 adopting a single countrywide Goods and Services Tax (GST), the federal council that is tasked with overseeing all the regulatory aspects of the indirect tax has had its hands full. From recommending the rates that could apply to various products and services, to deciding on what could be tax exempted, the GST Council has had the onerous task of laying out the policy framework for administering the tax in a manner that benefits all stakeholders – the governments, the consumers and the suppliers along the value chain. Given the complexity of the legacy taxes that GST subsumed and replaced and the teething troubles of operating a new tax system, ensuring optimal outcomes has proved an abiding challenge. A significant concern relates to the loopholes that unscrupulous operators have sought to exploit, whereby revenue that ought to have accrued to the Centre and the States has leaked while allowing these elements to derive illicit profits. And the scale of some has been breath-taking. Earlier this month, the Directorate General of GST Intelligence and the Directorate General of Revenue Intelligence conducted a pan-India joint

operation, which saw about 1,200 officers simultaneously conducting searches at 336 different locations. In the process they unearthed a network of exporters and their suppliers who had connived to claim fraudulent refunds of Integrated GST, with more than ₹470 crore of input tax credit availed being based on non-existent entities or suppliers with fictitious addresses. A further ₹450 crore of IGST refund is also under review.

It is against the backdrop of such cases, and the fact that frauds totalling up to a staggering ₹45,682 crore have been detected since the roll-out of the tax in July 2017, that the GST Council has decided “in principle” to recommend linking Aadhaar with registration of taxpayers. In its 37th meeting in Goa on Friday, the council also agreed to appraise the possibility of making the biometrics-based unique identifier mandatory for claiming refunds. Already the GST Network — the information technology backbone on which the whole tax system runs — has made it mandatory for new dealers registering under the composition scheme for small businesses to either authenticate their Aadhaar or submit to physical verification of their business, starting January 2020. The council too needs to follow the network’s lead and move swiftly to recommend mandatory linking for refunds, especially since that has proved to be the main source of most frauds. In a becalmed economy, neither the Centre nor States can afford to forego even a rupee of revenue that is due to the public coffers.

Q.56) According to the passage what remedial actions are suggested to avoid fraudulent activities?

- a) Authentication of Aadhaar for new registrations
- b) Biometrics-based unique identifier mandatory for claiming refunds
- c) Linking Aadhaar with registration of taxpayers
- d) All of the above

Q.56) Solution (d)

Refer to the passage below:

‘...to appraise the possibility of making the biometrics-based unique identifier mandatory for claiming refunds. Already the GST Network ...has made it mandatory for new dealers registering under the composition scheme for small businesses to either authenticate their Aadhaar or submit to physical verification of their business, ...’

On reading the passage carefully, we see all the above remedial measures listed as recommendations to reduce fraudulent activities.

Hence, option d is the correct answer.

Q.57) Which of the following is the most logical inference that can be drawn from the passage?

- a) GST has some challenges in terms of administration which cannot be rectified.
- b) GST loopholes are easy to identify and it has led to a decrease in tax theft.
- c) The new tax regime has become a tiring and excruciating exercise to operate.
- d) Aadhaar-Linked GST registration will help curb the malpractices and smooth operation of GST.

Q.57) Solution (d)

Option a is incorrect as no such issue that cannot be solved has been mentioned.

Option b is opposite of what has been mentioned in the passage.

Option c is factually incorrect.

Option d is correct as the author feels this step would reduce fraud.

Hence, option d is the correct answer.

Direction for the following 2(two) questions:

Study the information given below and answer the questions that follow

A family consists of six members A, B, C, D, E, and F. There are two married couples. B is a doctor and father of E. F is the grandfather of C and is a contractor. D is the grandmother of E and is a housewife. There is one doctor, one contractor, one nurse, one housewife, and two students in the family.

Q.58) Which of the following is definitely a group of male members?

- a) BF
- b) BFE
- c) BFA
- d) BE

Q.58) Solution (a)

In the above question, we can understand that B, the Doctor, is the father of E.

D, the Housewife, is the grandmother of E and hence the mother of B.

Since there are only two married couples, one being that of B, the grand-father of C this indicates that F must be married to D.

Thus, C and E will be both children of B and these must be the students.

So, A, who remains, shall be the wife of B and she alone can be the nurse. Thus, F must be the Contractor.

Clearly, the males are B, the father, and F, the grand-father. Therefore from the explanation, we can conclude that the correct option is a

Q.59) Which of the following are two married couples?

- a) DF and BE
- b) DF and AB
- c) DE and CF
- d) DF and AC

Q.59) Solution (b)

In the above question, we can understand that B, the Doctor, is the father of E.

D, the Housewife, is the grandmother of E and hence the mother of B.

Since there are only two married couples, one being that of B, the grand-father of C this indicates that F must be married to D.

Thus, C and E will be both children of B and these must be the students.

So, A, who remains, shall be the wife of B and she alone can be the nurse. Thus, F must be the Contractor.

The two married couples are B, A and F, D.

Hence, option b is correct.

Q.60) B's father is 26 years younger than B's grandfather and 29 years older than B. The sum of the ages of all the three is 135 years. What is the age of B's grandfather?

- a) 17 years

- b) 46 years
- c) 58 years
- d) 72 years

Q.60) Solution (d)

Let B's father's age be x years. Therefore, B's age and B's grandfather's age will be $(x - 29)$ years and $(x + 26)$ years respectively.

According to the given question, the sum of the ages of these 3 people is 135 years.

$$\therefore x + x - 29 + x + 26 = 135$$

$$3x - 3 = 135$$

On transposing 3 to R.H.S, we obtain

$$3x = 135 + 3$$

$$3x = 138$$

On dividing both sides by 3,

$$3x/3 = 138/3$$

We obtain $x = 46$

B's father's age = x years = 46 years

B's age = $(x - 29)$ years = $(46 - 29)$ years = 17 years

B's grandfather's age = $(x + 26)$ years = $(46 + 26)$ years = 72 years

Directions for the following 2 (two) questions:

Q.61) In each of the following questions there are two or three statements, which are followed by three or four conclusions. Choose the conclusions which logically follow from the given statements.

Consider the following

Statements:

- i. Some dogs are cats.
- ii. Some cats are rats.
- iii. No rat is a cow.

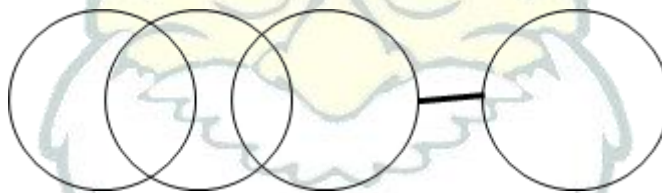
Conclusions:

- 1. No cow is a dog.
- 2. No rat is a dog.
- 3. Some cats are dogs.

Choose the correct code from options given below

- a) 3 only
- b) 1 and 2
- c) 1 and 3
- d) 2 and 3

Q.61) Solution (a)



Dogs

Cats

Rats

Cows

Some cats are dogs is true. Other statements are not.

Q.62) In each of the following questions there are two or three statements, which are followed by three or four conclusions. Choose the conclusions which logically follow from the given statements.

Consider the following

Statements:

- A. All reds are blue.
- B. No blue is white.
- C. All pink are white.

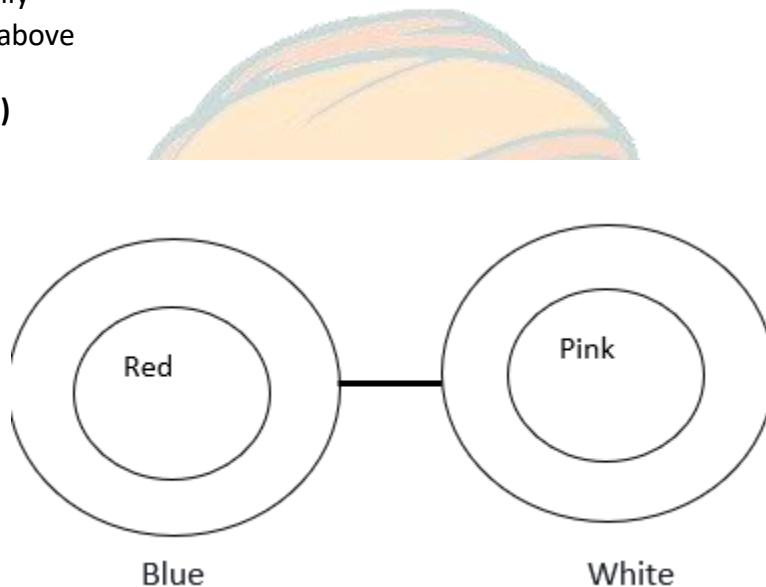
Conclusions:

1. No red is white.
2. No pink is blue.
3. No red is pink.

Choose the correct code from options given below

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) All of the above

Q.62) Solution (d)

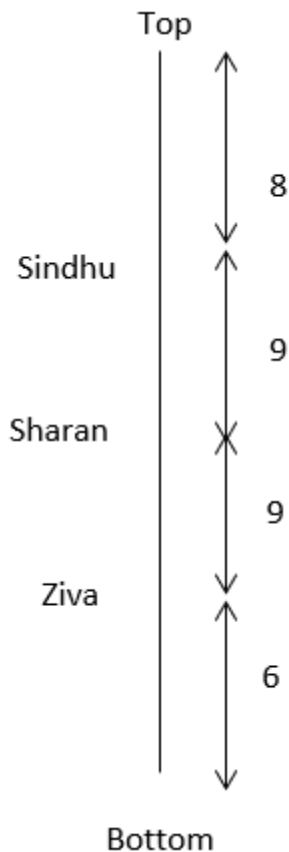


Clearly, all the conclusions follow.

Q.63) In a class of 35 students, Ziva is placed 7th from the bottom whereas Sindhu is placed 9th from the top. Sharan is placed in between the two. What is Ziva's position from Sharan?

- a) 10th
- b) 15th
- c) 19th
- d) 21st

Q.63) Solution (a)



As seen in the figure, Sharan is between Sindhu and Ziva.

It's given that Ziva is 7th from the bottom and Sindhu is 9th from the top.

Therefore, number of persons between Sindhu and Ziva = $35 - (9 + 7) = 19$

Sharan's position between Sindhu and Ziva = $(19+1)/2 = 10$

Hence, Sharan is at the middle i.e. at 10th position from both. Ziva, therefore, is at the 10th position from Sharan

Q.64) Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer:

Which village is to the North-East of village 'A'?

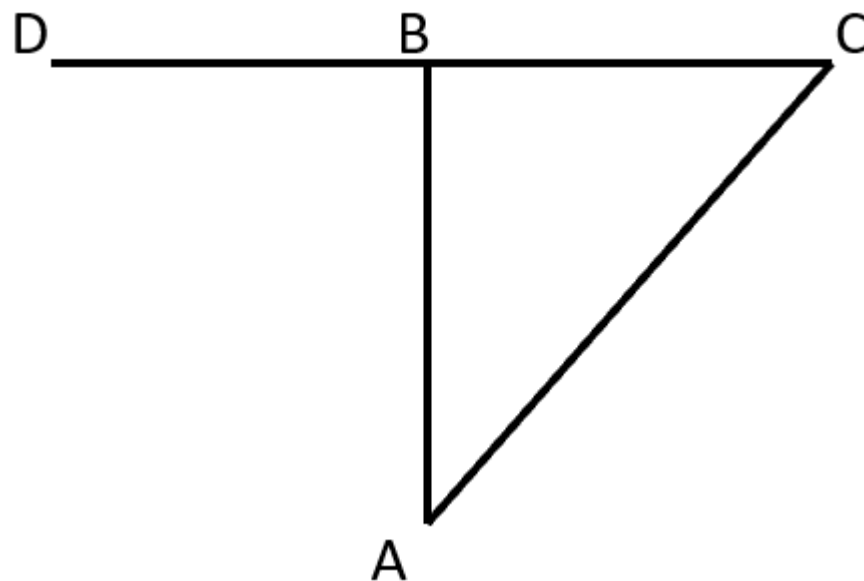
- I. Village 'B' is to the North of village A, villages C and D are to the East and West of village B, respectively.
- II. Village 'P' is to the South of village 'A' and village 'E' is to the East of village 'P', village 'K' is to the North of village 'P'.

Choose the correct code

- a) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question
- b) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
- c) The data given in statements, I and II together are not sufficient to answer the question
- d) The data in both statements I and II together are necessary to answer the question

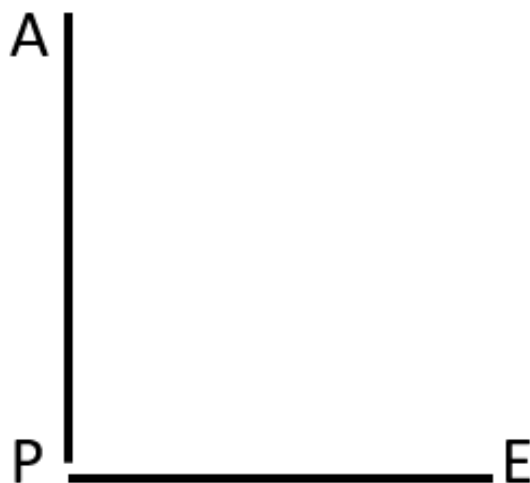
Q.64) Solution (a)

From Statement I



So, C is towards North East.

From Statement II



We can't determine K's position as he can be situated anywhere to the north of P.

Read the following passage and answer the question that follow each passage. Your answer to these question should be based on passage only.

Our voyage was very prosperous, but I shall not trouble the reader with a journal of it. The captain called in at one or two ports and sent in his long-boat for provisions and fresh water, but I never went out of the ship still we came into the Downs, which was on the 3rd day of June, 1706, about nine months after my escape. I offered to leave my goods in security for payment of my freight, but the captain protested he would not receive one farthing. We took kind leave of each other, and I made him promise that he would come to see me at my house in Red riff. I hired a house and a guide for five shillings which I borrowed from the captain.

Q.65) On the voyage, the author

- a) left the ship at intervals
- b) was not able to leave the ship because it did not stop
- c) never left the ship at all
- d) never left the ship till they came into the Downs

Q.65) Solution (d)

Author has mentioned in third line of passage 'I never went out of the ship till we came into the Downs' So, statement of option (d) is clearly written and hence the obvious choice.

Read the following passages and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

Opera refers to a dramatic art form, originating in Europe, in which the emotional content is conveyed to the audience as much through music, both vocal and instrumental, as it is through the lyrics. By contrast, in musical theatre an actor's dramatic performance is primary, and the music plays a lesser role. The drama in opera is presented using the primary elements of theatre such as scenery, costumes, and acting. However, the words of the opera, or libretto, are sung rather than spoken. The singers are accompanied by a musical ensemble ranging from a small instrumental ensemble to a full symphonic orchestra.

Q.66) It is pointed out in the passage that opera

- a) has developed under the influence of musical theatre
- b) is a drama sung with the accompaniment of an orchestra
- c) is not a high-budget production
- d) is the most complex of all the performing arts

Q.66) Solution (b)

Opera refers to a dramatic art form, originating in Europe, in which the emotional content is conveyed to the audience as much through music, both vocal and instrumental, as it is through the lyrics

This statement makes it clear that option b is the correct answer

Passage 2

Many sociologists have argued that there is functional relationship between education and economic system. They point to the fact that mass formal education began in industrial society. They note that the expansion of the economies of industrial societies is accompanied by a corresponding expansion of their educational systems. They explain this correspondence in terms of the needs of industry for skilled and trained manpower, needs which are met by the educational system. Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.

Q.67) The industry needs a literate work-force because

- a) its expansion needs sound learning
- b) it relies heavily on expertise
- c) it promotes a competitive spirit
- d) its operations need intricate technical knowledge

Q.67) Solution (d)

Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.....

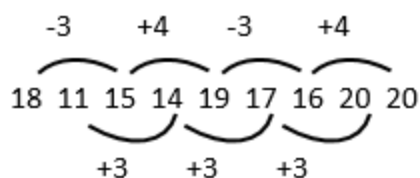
From this we can infer that option d is the correct answer.

Q.68) Where should the number 17 be placed to fit into the sequence?

18, 11, 15, 14, 19, 16, 20, 20

- a) Between 14 and 19
- b) Between 18 and 11
- c) Between 19 and 16
- d) Between 15 and 14

Q.68) Solution (c)



The correct placement is between 19 × 16

So that there will be 2 sequences

1. -3 and +4
2. +3 as shown in figure

Q.69) Find the missing number: 2, 6, 20, 42, 110, ?

- a) 126
- b) 156
- c) 176
- d) 196

Q.69) Solution (b)

The series is $2^2 - 2$, $3^2 - 3$, $5^2 - 5$, $7^2 - 7$, $11^2 - 11$.

So, the answer is $13^2 - 13$ i.e. 156

Q.70) Find the missing number from the given series

5, 10, 13, 26, 29, 58, 61, _

- a) 109
- b) 115
- c) 122
- d) 125

Q.70) Solution (c)

Logic - Numbers are alternatively multiplied by 2 and increased by 3

$$5 \times 2 = 10$$

$$10 + 3 = 13$$

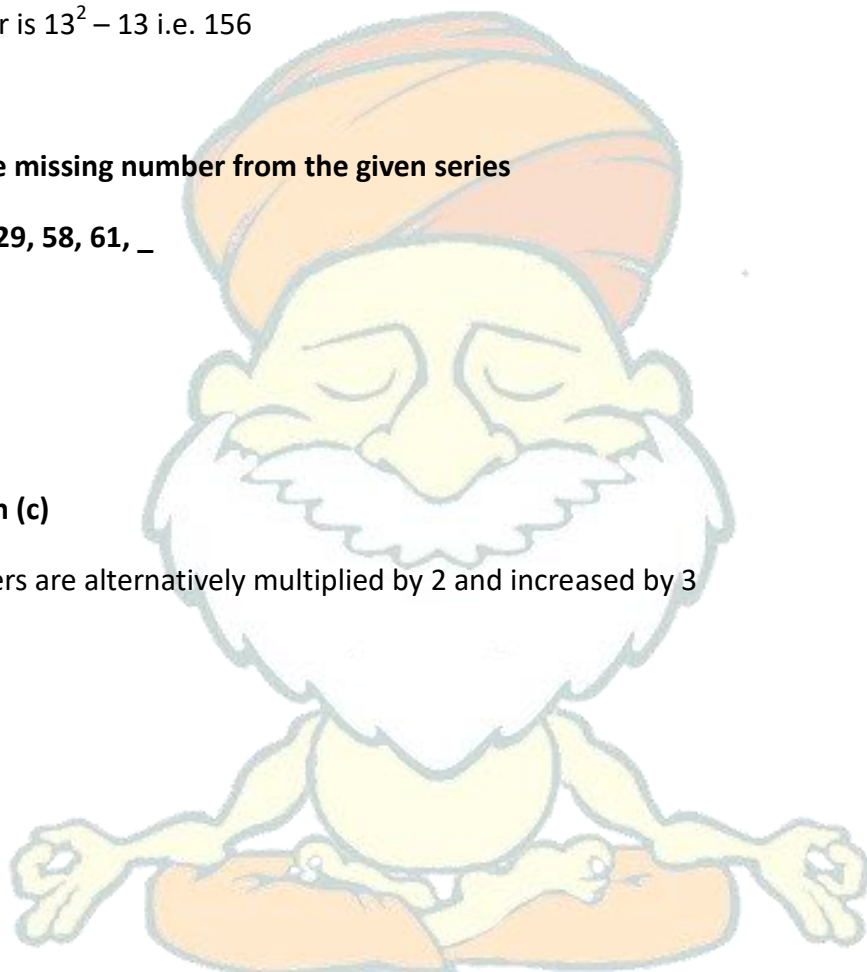
$$13 \times 2 = 26$$

$$26 + 3 = 29$$

$$29 \times 2 = 58$$

$$58 + 3 = 61$$

$$61 \times 2 = 122$$



Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Creativity is at once our most precious resource and our most inexhaustible one. As anyone who has ever spent any time with children knows, every single human being is born creative; every human being is innately endowed with the ability to combine and recombine data, perceptions, materials and ideas, and devise new ways of thinking and doing. What fosters creativity? More than anything else: the presence of other creative people. The big myth is that creativity is the province of great individual geniuses. In fact creativity is a social process. Our biggest creative breakthroughs come when people learn from, compete with, and collaborate with other people.

Cities are the true fonts of creativity... With their diverse populations, dense social networks, and public spaces where people can meet spontaneously and serendipitously, they spark and catalyze new ideas. With their infrastructure for finance, organization and trade, they allow those ideas to be swiftly actualized.

As for what stanches creativity, that's easy, if ironic. It's the very institutions that we build to manage, exploit and perpetuate the fruits of creativity — our big bureaucracies, and sad to say, too many of our schools. Creativity is disruptive; schools and organizations are regimented, standardized and stultifying.

The education expert Sir Ken Robinson points to a 1968 study reporting on a group of 1,600 children who were tested over time for their ability to think in out-of-the-box ways. When the children were between 3 and 5 years old, 98 per cent achieved positive scores. When they were 8 to 10, only 32 per cent passed the same test, and only 10 per cent at 13 to 15. When 2,80,000 25-year-olds took the test, just 2 per cent passed. By the time we are adults, our creativity has been wrung out of us.

I once asked the great urbanite, Jane Jacobs, what makes some places more creative than others. She said, essentially, that the question was an easy one. All cities, she said, were filled with creative people; that is our default state as people. But some cities had more than their shares of leaders, people and institutions that blocked out that creativity. She called them "squelchers."

Creativity (or the lack of it) follows the same general contours of the great socio-economic divide — our rising inequality — that plagues us. According to my estimates, roughly a third of us across the United States, and perhaps as much as half of us in our most creative cities — can do work which engages our creative faculties to some extent, whether as artists, musicians, writers, techies, innovators, entrepreneurs, doctors, lawyers, journalists or educators — those of us who work with our minds. That leaves a group that I term "the other 66 per cent," who toil in low-wage rote and rotten jobs — if they have jobs at all — in which their creativity is subjugated, ignored or wasted.

Creativity itself is not in danger. It's flourishing is all around us — in science and technology, arts and culture, in our rapidly revitalizing cities. But we still have a long way to go if we want to

build a truly creative society that supports and rewards the creativity of every one of us.

Q.71) In the author's view, cities promote human creativity for all the following reasons except that they

- a) contain spaces that enable people to meet and share new ideas
- b) expose people to different and novel ideas, because they are home to varied groups of people
- c) provide the financial and institutional networks that enable ideas to become reality
- d) provide access to cultural activities that promote new and creative ways of thinking

Q.71) Solution (d)

The author also mentions that cities provide a space where people can meet and share ideas. Then, the author discusses the financial and organizational infrastructure that cities provide for ideas to flourish.

Nowhere has it been mentioned that cities provide access to cultural activities. We cannot infer option d from the passage.

Therefore, option d is the correct answer.

Q.72) The author uses 'ironic' in the third paragraph to point out that

- a) people need social contact rather than isolation to nurture their creativity
- b) institutions created to promote creativity eventually stifle it
- c) the larger the creative population in a city, the more likely it is to be stifled
- d) large bureaucracies and institutions are the inevitable outcomes of successful cities

Q.72) Solution (b)

'Irony' is a term used to define an activity defeating its very purpose. Therefore, the answer must be along similar lines - a method or activity that stifles its purpose.

In the passage (1968 survey), the author describes how schools and colleges, the institutions that were supposed to foster creativity, stifle it. Also, in the paragraph preceding the paragraph about the survey, the author mentions explicitly that the institutes created to promote creativity stifle it. Therefore, option b is the correct answer.

Q.73) The central idea of this passage is that

- a) social interaction is necessary to nurture creativity
- b) creativity and ideas are gradually declining in all societies
- c) the creativity divide is widening in societies in line with socio-economic trends
- d) more people should work in jobs that engage their creative faculties

Q.73) Solution (a)

The entire passage revolves around how cities provide grounds for creativity to flourish and how our education system stifles it.

Option b states that creativity and ideas are gradually declining. But, in the last paragraph, the author mentions that 'Creativity itself is not in danger'. Therefore, we can rule out option b.

Option d states that more people must engage in creative jobs. But it cannot be said to be the central idea of the passage. As we have discussed, the passage revolves around social interaction and creativity divide. Therefore, we can eliminate option d too.

Options a and c are close. But, the author describes creativity divide more as an effect than the problem itself. Barring the last 2 paragraphs, the author describes the importance of social interaction and how the lack of it kills creativity. Since the question is about the central idea, option a can be deemed a better fit than option c.

Therefore, option a is correct.

Q.74) The author's conclusions about the most 'creative cities' in the US (paragraph 6) are based on his assumption that

- a) people who work with their hands are not doing creative work
- b) more than half the population works in non-creative jobs
- c) only artists, musicians, writers, and so on should be valued in a society
- d) most cities ignore or waste the creativity of low-wage workers

Q.74) Solution (a)

In the paragraph regarding creative cities, the author remarks that the creativity of only those people who work with their mind is utilized. Therefore, we can infer that the author thinks that the creativity of people who do not work with their minds (who work with their hands) is not utilized. Therefore, option a is the correct answer.

Q.75) Study the following arrangement carefully and answer the questions given below:

B A E D A D E B C A C U A B D U A D B E B A B C U D E B C D C

How many such consonants are there in the above arrangement each of which is immediately preceded by a vowel and also immediately followed by a vowel?

- a) None
- b) Three
- c) Four
- d) Five

Q.75) Solution (d)

The pattern asked in the question is 'Vowel Consonant Vowel'.

The required number of combinations is EDA, ADE, ACU, EBA, and UDE

Hence, there are 5 such combinations.

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Once a group of 500 people were attending a seminar. Suddenly the speaker stopped and decided to do a group activity. He started giving each person a balloon. Each person was then asked to write their name on it using a marker pen. Then all the balloons were collected and put in another room. The people were then let into that room and asked to find the balloon which had their name written on it within 5 minutes. Everyone was frantically searching for their name, colliding with each other, pushing around others and there was utter chaos. At the end of 5 minutes no one could find their own balloon. Then, the speaker asked each person to randomly collect a balloon and give it to the person whose name was written on it. Within minutes everyone had their own balloon.

The speaker then began, "this is happening in our lives. Everyone is frantically looking for happiness all around, not knowing where it is. Our happiness lies in the happiness of other people. Give them their happiness; you will get your own happiness. And this is the purpose of human life...the pursuit of happiness."

Q.76) Which of the following is the most suited topic for the seminar?

- a) Life and sustainable happiness

- b) Path to personal prosperity
- c) Personal growth is all that matters
- d) Happiness is a nothing but a myth

Q.76) Solution (a)

Author is guiding the reader to understand the concept of social happiness and inclusive growth, which according to him will bring sustainable happiness.

Q.77) According to the passage, which is the most suitable way of life style?

1. Living a self-centred life with absolute focus on self-progress and materialistic improvements.
2. Promoting the culture of sustainable happiness and inclusive growth
3. Enhanced focus on social life along with personal monetary gains

Select the correct answer using the codes below:

- a) Only 1
- b) Only 2
- c) Both 1 and 3
- d) Both 2 and 3

Q.77) Solution (b)

Author is clearly advocating the concept of sustainable happiness, which according to him lies in the bonds we have amongst us.

Q.78) Find the missing number: - 1, 0, ?, 8, 15

- a) 1
- b) 2
- c) 3
- d) 4

Q.78) Solution (c)

The logic is 0^2-1 , 1^2-1 , 2^2-1 , 3^2-1 , 4^2-1

So, the answer is $2^2 - 1 = 3$.

Hence, option c is correct.

Q.79) In the following letter series, some of the letters are missing, which are given below it. Choose the correct alternative.

D _ F _ DEE _ D _ EF _ DE _ F

- a) EFFDED
- b) EFFDDF
- c) EFFDFE
- d) None of the above

Q.79) Solution (c)

First 4 alphabets are same in the given options.

By using these alphabets, we get a pattern which is satisfied by option C (DEF, FDE, EFD, DEF, FDE, EF).

Q.80) In each question two/three statements followed by two conclusions numbered I and II have been given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

Statements:

- 1. All winters are summers.
- 2. Some summers are springs.
- 3. No spring is an autumn.

Conclusions:

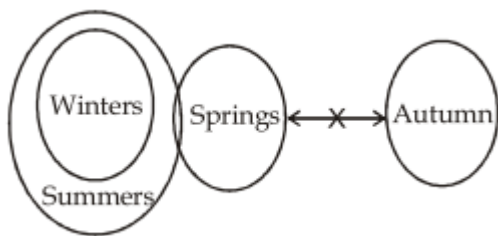
- I. At least some winters are springs.
- II. Some autumns being summers is a possibility.

Choose the correct code

- a) Either conclusion I or II follows

- b) Both conclusions I and II follow
- c) Only conclusion I follows
- d) Only conclusion II follows

Q.80) Solution (d)



Read the following passages and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

Nature writing is nonfiction or fiction prose or poetry about the natural environment. Nature writing encompasses a wide variety of works, ranging from those that place primary emphasis on natural history facts (such as field guides) to those in which philosophical interpretation predominate. It includes natural history essays, poetry, essays of solitude or escape, as well as travel and adventure writing.

Nature writing often draws heavily on scientific information and facts about the natural world; at the same time, it is frequently written in the first person and incorporates personal observations of and philosophical reflections upon nature.

Modern nature writing traces its roots to the works of natural history that were popular in the second half of the 18th century and throughout the 19th. An important early figure was the "parson-naturalist" Gilbert White (1720 – 1793), a pioneering English naturalist and ornithologist. He is best known for his *Natural History and Antiquities of Selborne* (1789).

Q.81) Which of the following statement best summarizes the above passage?

- a) The passage talks about the life and lessons of Gilbert White, a profound naturalist and ornithologist.
- b) The passage talks about how the nature writing is missing in the modern era and needs to be revived.
- c) The passage talks about from where the writers draw inspiration for nature writing, and how its importance is diminishing in the modern era.

- d) The passage talks about what nature writing is, the different type of nature writing, its style, and about the roots and pioneer of modern nature writing.

Q.81) Solution (d)

It can be inferred from the given passage that, it talks about the form of nature writing in the first paragraph.

The different types of nature writing, its style, and about the roots, are mentioned in the 2nd paragraph. Finally the passage talks about pioneer of modern nature in the last paragraph.

Hence, option d is correct.

Passage 2

Many sociologists have argued that there is functional relationship between education and economic system. They point to the fact that mass formal education began in industrial society. They note that the expansion of the economies of industrial societies is accompanied by a corresponding expansion of their educational systems. They explain this correspondence in terms of the needs of industry for skilled and trained manpower, needs which are met by the educational system. Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.

Q.82) The industry needs a literate work-force because

- a) its expansion needs sound learning
- b) it relies heavily on expertise
- c) it promotes a competitive spirit
- d) its operations need intricate technical knowledge

Q.82) Solution (d)

Refer to the following excerpt from the passage,

“Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.....”

From this we can infer that option d is the correct answer.

Directions for the following two questions:

Each of the questions below starts with a few statements, followed by four conclusions numbered 1, 2, 3 and 4. You have to consider every given statement as true, even if it does not conform to the accepted facts. Read the conclusions carefully and then decide which of the conclusion(s) logically follow(s) from the given statements, disregarding commonly known facts.

Q.83) In each question two/three statements followed by four conclusions numbered I to IV have been given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

Statements:

- I. Some boys are scholars.
- II. Some teachers are boys.
- III. All scholars are observers

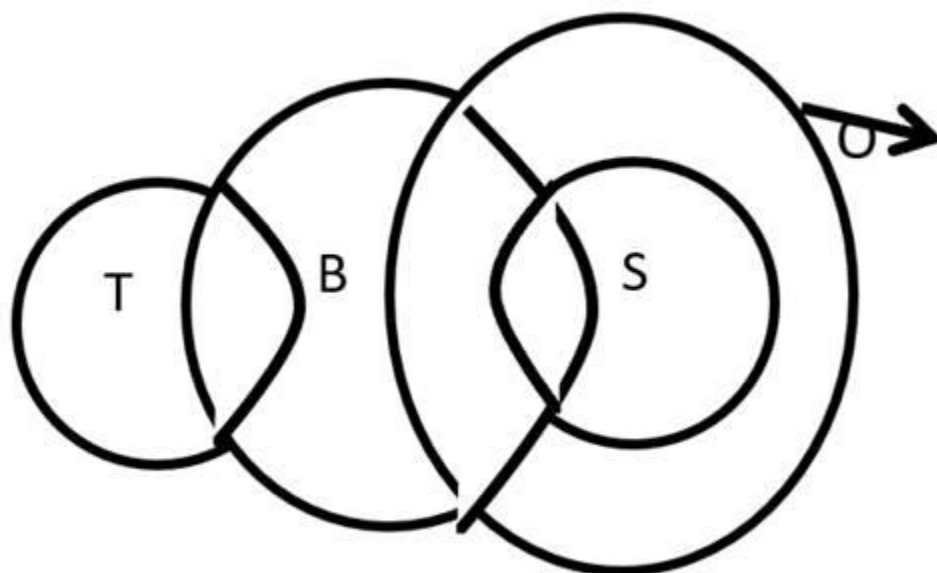
Conclusions:

- 1. Some scholars are boys
- 2. Some scholars are not boys
- 3. Some observers are boys
- 4. Some teachers are scholars

Choose the correct code

- a. Only conclusion 1 and conclusion 3 follow
- b. Either conclusion 1 or 2 and conclusion 3 follow
- c. Conclusions 1, 3, and 4 follow
- d. None of the above

Q.83) Solution (a)



Since some boys are scholars, thus some scholars are boys too.

As all scholars are observers, thus some observers are boys too.

So, conclusions 1 and 3 follow

Q.84) In each question two/three statements followed by four conclusions numbered I to IV have been given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

Statements:

- I. Some questions are answers.
- II. Some answers are writers.
- III. All the writers are poets.

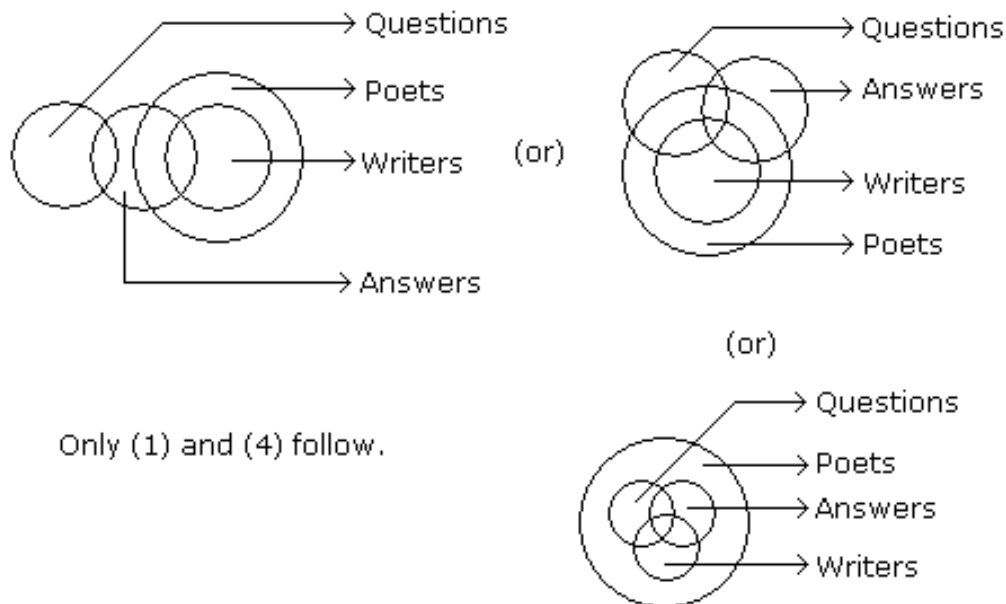
Conclusions:

- 1. Some writers are answers.
- 2. Some poets are questions.
- 3. All the questions are poets.
- 4. Some poets are answers.

Choose the correct code

- a) Only 1 and 2
- b) Only 1 and 4
- c) Only 1 and 3
- d) Only 2 and 4

Q.84) Solution (b)



Only (1) and (4) follow.

Q.85) This question is based on the following letter/ number/symbol arrangement. Study it carefully and answer the question:

7 D 5 # A B 1 % K \$ 4 E J F 3 * 2 H I @ L 6 Q U © 9 M T 8 W

How many such symbols are there in the above arrangement each of which is immediately preceded by a vowel and also immediately followed by a number?

- a) None
- b) One
- c) Two
- d) Three

Q.85) Solution (b)

The arrangement looks like, Vowel Symbol Number

From the above arrangement, we can find only one such combination. i.e. U@9.

Directions for the following questions:

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

The object underlying the rules of natural justice "is to prevent miscarriage of justice" and secure "fair play in action" As pointed out earlier the requirement about recording of reasons for its decision by an administrative authority exercising quasi-judicial functions achieves his object by excluding changes of arbitrariness and ensuring a degree of fairness in the process of decision making. Keeping in view the expanding horizon of the principle of natural justice, which governs exercise of power by administrative authorities the rules of natural justice are not embodied rules. The extent of their application depends upon the particularly statutory framework where under jurisdiction has been conferred on the administrative authority. with regard to the exercise of particular power by an administrative authority including exercise of judicial or quasi-judicial functions the legislature, while conferring the said power, may feel that it would not be in the larger public interest that the reasons for the order passed by the administrative authority be recorded in the order and be communicated to the aggrieved party and it may dispense with such a requirement

Q.86) "The rules of the natural justice are not embodies rules" means that these rules

- a) are left deliberately vague
- b) cannot be satisfactorily interpreted
- c) are flexible
- d) cannot be visualised

Q.86) Solution (c)

The extent of their application depends upon the particularly statutory framework.....

This statement means that the rules are flexible.

Passage 2

Organized retail has fuelled new growth categories-like liquid hand wash, breakfast cereals and pet foods in the consumer goods industry, accounting for almost 50% of their sales, said data from market search firm Nielsen. The figures showed some of these new categories got more than 40% of their business from modern retail outlets. The data also suggests how products in these categories reach the neighbourhood kirana stores after they have established themselves in modern trade. While grocers continue to be an important channel, for the new and evolving categories we saw an increased presence of high-end products in modern trade. For example, premium products in laundry detergents, dishwashing, car air fresheners and surface care increased in availability through this format as these products are aimed at affluent consumers who are more likely to shop in supermarket/hypermarket outlets and who are willing to pay more for specialized products.

Q.87) The new growth category products

- a) account for less than 20% of sales in organized retail
- b) reach first the neighbourhood Kirana shop and then the modern retail outlets
- c) reach all the outlets almost at the same time
- d) first become popular in modern trade outlets before reaching Kirana shops

Q.87) Solution (d)

The data also suggests how products in these categories reach the neighbourhood kirana stores after they have established themselves in modern trade..

Hence option d is the correct answer.

Q.88) The following question is based on the five three digit numbers given below:

574 658 821 945 247

If one is added to the last digit of each of the numbers, in how many numbers thus formed will the last digit be a perfect square (1 is also be a perfect square)?

- a) One
- b) Two
- c) Three
- d) Four

Q.88) Solution (a)

After adding 1 to the last digit, the newly formed digits will be 5, 9, 2, 6, 8

From this we can conclude that only 9 is a perfect square.

Hence, only one such number is possible.

Q.89) What will come in place of the question mark (?) in the following number series?

6, 10, 37, 53, 178, ?

- a) 210
- b) 212
- c) 214
- d) 226

Q.89) Solution (c)

The given number series follows the pattern as below

First term + 2^2 , Second term + 3^3 , Third term + 4^2 , Fourth term + 5^3 , Fifth term + 6^2

Hence, the required number is $178 + 36 = 214$

Q.90) The following question consists of a question followed three statements labeled I, II and III. You have to decide whether the data given in the statement(s) is/are sufficient for answering the question. Read all the statements carefully and seek all the possible combinations which could be sufficient for answering the question. A single combination of statements with least number of statements which could be sufficient for answering the question would be your answer.

Among P, Q, R, S and T, Q is the second tallest and S is immediately taller than the shortest. Who among them is in the middle when they stand in the decreasing order of their heights?

- I. T is not the shortest.
- II. R is taller than S but shorter than Q.
- III. P ranks third in height above S when all are arranged in the order of height.

Choose the correct code

- a) Only I and II

- b) Either II only or I and III only
- c) Only II
- d) Only II and III

Q.90) Solution (b)

From the given statement, the descending order of heights is: $_$, Q, $_$, S, $_$.

From II, we have the order: $_$, Q, R, S, $_$. Thus, R is in the middle.

From III, we have the order: P, Q, $_$, S, $_$.

But, according to I, T is not the shortest. So, R is the shortest.

Thus, we have the order: P, Q, T, S, R. So, T is in the middle.

Hence, option b is correct.

Q.91) Answer the question on the basis of the statements given below.

Question: Ram sold a card and makes 20% profit out of it, how much profit he actually earned?

Statements

1. Difference between cost price of card and selling price of card is Rs 40
2. Selling price of card is 120% of cost price of card

Choose the correct code

- a. 1 alone is sufficient while 2 alone is not sufficient
- b. 2 alone is sufficient while 1 alone is not sufficient
- c. Either 1 or 2 is sufficient
- d. Both 1 and 2 are sufficient

Q.91) Solution (a)

From the question it is clear that, Gain is 20%

From 1, it is clear that $S.P. - C.P. = 40$, so it is sufficient to get answer.

While 2 is not sufficient to get answer.

Q.92) A shopkeeper fixes the marked price of an item 35% above its cost price. The percentage of discount allowed to gain 8% is

- a) 18%
- b) 20%
- c) 25%
- d) 28%

Q.92) Solution (b)

Let the cost price = Rs 100

Then, Marked price = Rs 135

Required gain = 8%,

So Selling price = Rs 108

Discount = 135 - 108 = 27

Discount% = $(27/135) \times 100 = 20\%$

Q.93) If the cost price of 15 articles is equal to the selling price of 12 articles, the profit percentage is

- a) 15%
- b) 20%
- c) 25%
- d) 30%

Q.93) Solution (c)

S.P of 12 articles = C.P of 15 articles

Therefore, gain % is $= \frac{15-12}{12} \times 100 = 25\%$

Q.94) An item costing rupees 300 being sold at 10 % gain. If the selling price is reduced by 15

% what will be the gain or loss percent?

- a) 6.5% gain
- b) 6.5% loss
- c) 5% loss
- d) 5% gain

Q.94) Solution (b)

S.P of article = $(300 \times 110)/100 = 330$

Case 2

S.P of article = $330 \times [(100-15)/100] = 280.5$

Loss = $300 - 280.5$

= 19.5

Loss percentage = $[19.5/300] \times 100$

= 6.5

Q.95) A shopkeeper sells 4 pencils per rupee and loses 10%. If he sells 3 pencils per rupee, then the profit made by him must be?

- a) 20%
- b) 28%
- c) 30%
- d) 35%

Q.95) Solution (a)

Some shortcuts for easy understanding

If S.P/C.P ratio is equal to 1, then there is neither loss nor profit.

If S.P/C.P ratio is greater than 1, then there is a profit.

If S.P/C.P ratio is less than 1, then there is a loss.

According to the question, $S.P = 1/4$ and loss = 10%, So $S.P/C.P = 0.9$

$$C.P = (1/4)/0.9$$

$$\text{New } S.P = 1/3$$

$$\text{Profit} = S.P/C.P = 1.2 \text{ i.e. } 20\%$$

Q.96) Sanam took a loan of 1,200 RS with a simple interest for as many years as the rate of interest. If she paid RS 432 as interest at the end of the loan period, what was the rate of interest?

- a) 4.6
- b) 6
- c) 12
- d) 18

Q.96) Solution (b)

Let the rate of interest be $R\%$ and time be R years.

$$\text{Then, } SI = P \times R \times T / 100$$

$$432 = 1200 \times R \times R / 100$$

$$432 = 1200 R^2 / 100$$

$$R^2 = 36$$

$$R = 6$$

Q.97) man took a loan of Rs 1200 with simple interest for as many years as the rate of interest. If she paid Rs 432 as interest at the end of loan period, what was the rate of interest?

- a) 6%
- b) 8%
- c) 12%
- d) None of these

Q.97) Solution (a)

Let rate = R% and time = R years

Then, $(1200 \times R \times R)/100 = 432$

$$12R^2 = 432$$

$$R^2 = 36$$

$$R = 6$$

Q.98) Suresh starts a business with Rs 36,000. After a certain period of time he is joined by Deepak, who invests Rs 27,000. At the end of the year they divide the profit in the ratio of 8:3. For what period did Deepak join Suresh?

- a) 7 months
- b) 8 months
- c) 6 months
- d) 5 months

Q.98) Solution (c)

Ratio of profit = [capital of Suresh x time] / [capital of Deepak x time]

Let Deepak's investment be for X months.

Then, $8/3 = (36,000 \times 12) / (27,000 \times X)$

On solving $X = 6$ months

Q.99) If X is the interest on Y and Y is the interest on Z, the rate and time is the same on both the cases. What is the relation between X, Y and Z?

- a) $XYZ = 1$
- b) $X^2 = YZ$
- c) $Y^2 = XZ$
- d) $Z^2 = XY$

Q.99) Solution (c)

$$X = (Y \times NR)/100 \quad Y = (Z \times NR)/100$$

$$X/Y = NR/100 \quad Y/Z = NR/100$$

$$X/Y = Y/Z$$

$$Y^2 = XZ$$

Q.100) The owner of a Television shop charges his customer 16% more than the cost price. If a customer paid Rs.17,400 for a Television, then what was the cost price of the television?

- a) Rs.13,000
- b) Rs.14,000
- c) Rs.15,000
- d) Rs.16,000

Q.100) Solution (c)

We can assume Cost Price to be Rs.100.

Then, selling price would be Rs.116 (16% more is charged on the cost price).

So, if in reality selling price is Rs.17,400 then cost price would be Rs.15,000.

We could use unitary method to find the value.

S.P. ----- C.P.

Rs.116 ----- Rs.100

Rs.1 ----- Rs.(100/116)

Rs.17,400 ----- Rs.(100/116)* Rs.17,400 which gives C.P. as Rs.15,000

Directions for the following 4 (four) questions:

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

The power perspective sees democracy as an effort to balance social power. History is a chronicle of societies where social power has been concentrated in a few hands. Democracy proposes that social power be distributed as widely and evenly as possible and, where it must be concentrated, it is made constitutionally answerable to those over whom it is exercised. Not surprisingly, the power perspective on democracy is concerned with institutions, constitutions,

and other formal arrangements that impose structure and balance on social power relationships. It sees power as an essentially competitive phenomenon: we all seek more power to pursue our own interests.

The participation perspective sees democracy as an activity through which citizens participate in their community. Participation is considered a basic human need, a natural outgrowth of our social nature. Public life in general and political activity in particular, allows us to partake in and shape a larger world beyond ourselves. Furthermore, democratic activity enables us to better understand and develop (or "actualize") ourselves through active relationships with other people. Power is seen as a cooperative, rather than competitive phenomenon - something we get by working together. From this participatory perspective, democracy is something we do and live, not something we have or make. Improving our "living democracy" is a matter of developing and using democratic forums and learning democratic skills.

The intelligence perspective sees democracy as a factor that supports the exercise of collective intelligence. By collective Intelligence I mean a group's or society's capacity to respond, collectively, to its changing circumstances; to make creative use of opportunities; to articulate and pursue visions and purposes; and to evolve as a culture. Authoritarian groups can be no more intelligent than their leaders. Such groups tend to be less intelligent than democratic groups because excess power tends to distort the power holders' ability to think and feel clearly and appropriately. Furthermore, authoritarian systems tend to neglect or suppress the potential contributions of non-leaders.

While the power perspective on democracy focuses on institutions - and the participation perspective focuses on the democratic arts - the intelligence perspective focuses on collective dynamics and learning in groups, communities and whole societies. All three perspectives combined can provide us with an in-depth, 3-D, vibrantly alive sense of what democracy is all about.

Q.101) Democratic institutions provide scope to collective intelligence. An example of this would be

- a) Involvement of various think tanks in policy making
- b) Existence of authoritarian power centres
- c) Power struggle between various social groups
- d) Free and fair elections

Q.101) Solution (a)

Think tanks provide a scope for collective intelligence. Hence this is the intelligence perspective of democracy.

Democracy does not provide for existence of authoritarian power centres. Option (c) is power

perspective whereas option (d) is participation perspective.

Q.102) Choose the correct statement among the following options.

- a) In a democracy, power must be distributed as widely as possible, but wherever concentrated must be made answerable to those over whom it is exercised
- b) Constitution is both necessary and sufficient feature for any democracy
- c) Only intelligent people can make the intelligence perspective of democracy a meaningful proposition
- d) Power perspective is the most important perspective on democracy

Q.102) Solution (a)

It can be seen that only option (a) is correct and is directly taken from the first paragraph. Other options cannot be inferred from the passage.

Q.103) With reference to the passage, consider the following statements.

- 1. Historically, power has been distributed rather than concentrated
- 2. Collective Intelligence predominates over individual intelligence

Which of the above is/are valid assumption/assumptions?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.103) Solution (b)

Statement 1 is wrong because according to the passage, historically power has been concentrated in few hands. From the third paragraph in the passage, it is clear that Collective intelligence predominates over individual intelligence. Therefore statement 2 is correct.

Q.104) The existence of Legislature, Judiciary and Executive in Indian democracy supports which of the perspectives of democracy mentioned in the passage?

- a) Power perspective
- b) Participation perspective
- c) Intelligence perspective
- d) None of these

Q.104) Solution (a)

Executive, Legislature and Judiciary compete for power in Indian democracy and hence the Separation of powers is also considered the basic feature of our constitution. Therefore the answer is power perspective.

Q.105) In March 2019, IAS BABA Library purchased a total of 15 new books published in the year 2015 with a total expenditure of Rs 4,500. Of these books, 13 books were purchased from AB distributors, while the remaining two were purchased from XY Publishers. It is observed that one-sixth of the average price of all the 15 books purchased is equal to one-fifth of the average price of the 13 books obtained from AB Distributors. Of the two books obtained from XY Publishers, if one-third of the price of one volume is equal to one-half of the price of the other, then the price of the two books are:

- a) Rs 900 and Rs 600
- b) Rs 600 and Rs 400
- c) Rs 750 and Rs 500
- d) None of the above

Q.105) Solution (c)

Let 'x' and 'y' be the average price of 13 books obtained from AB Distributors and the remaining 2 books purchased from XY Publishers respectively.

It is given that he spent a total of Rs 4,500. Therefore,

$$13x + 2y = 4,500 \rightarrow (1)$$

It is also observed that one-sixth of the average price of all the 15 books purchased is equal to one-fifth of the average price of the 13 books obtained from AB Distributors.

$$(4,500/15)/6 = x/5$$

$$x = 25 \rightarrow (2)$$

Form equation (1) and (2) we can say that $2y = 1250$.

Let 'a' and 'b' be the price of two books purchased from XY Publishers. It is given that one-third of the price of one volume is equal to one half of the price of the other.

Therefore, $a/3 = b/2 \rightarrow (3)$

Also, $2y = 1250 = a + b \rightarrow (4)$

From, equation (3) and (4) we can say that $a = 750$ and $b = 500$. Hence, option c is correct.

Read the following passages and the answer the items that follow. Your answers to these items should be based on the passages only.

Passage-1

The Indian government has announced an international competition to design a National War Memorial in New Delhi, to honour all of the Indian soldiers who served in the various wars and counter-insurgency campaigns from 1947 onwards. The terms of the competition also specified that the new structure would be built adjacent to the India Gate – a memorial to the Indian soldiers who died in the First World War. Between the old imperialist memorial and the proposed nationalist one, India's contribution to the Second World War is airbrushed out of existence.

Q.106) In the above passage what does the author laments the fact;

- a) there is no recognition of the Indian soldiers who served in the Second World War
- b) the new war memorial will be built right next to India Gate
- c) India lost thousands of human lives during the Second World War
- d) funds will be wasted on another war memorial when we already have the India Gate memorial

Q.106) Solution (a)

The evidence or documents pertaining to the sacrifice and role of Indian soldiers during 2nd world war has been erased. Thus, there is no recognition observed.

Passage-2

The dangerous illusion of technology is that it can create stronger, top-down accountability of service providers in implementation-intensive services within existing public sector organizations. One notion is that electronic management information systems (EMIS) keep

better track of inputs and those aspects of personnel that are 'EMIS visible' can lead to better services. A recent study examined attempts to increase attendance of Auxiliary Nurse Midwife (ANMs) at clinics in Rajasthan, which involved high-tech time clocks to monitor attendance. The study's title says it all: Band-Aids on a Corpse. E-governance can be just as bad as any other governance when the real issue is people and their motivation.

Q.107) In the context of the passage, we can infer that the title "Band Aids on a Corpse" suggests that:

- a) the nurses who attended the clinics were too poorly trained to provide appropriate medical care
- b) the electronic monitoring system was a superficial solution to a serious problem
- c) the clinics were better funded, but performance monitoring did not result in any improvement
- d) the nurses attended the clinics, but the clinics were ill-equipped

Q.107) Solution (b)

In the context of the passage, it suggests that it was a superficial solution to a more serious problem. The other choices are focusing too much on the nurses and the clinics, but that is not the main idea of the passage.

In the context of the passage, the example of nurses is just a small suggestion of a superficial solution to a bigger problem. We should not forget that the question asks us to answer in the context of the passage.

Hence, option b is correct.

Q.108) A certain amount was deposited at simple interest at a specific rate for 3 years. Had it been deposited at 2% higher rate, it would have fetched Rs 360 more. Find the amount invested

- a) Rs 5,500
- b) Rs 5,000
- c) Rs 6,000
- d) Rs 4,500

Q.108) Solution (c)

Let 'a' is the amount invested and 'r' is the rate percent per annum.

$$\rightarrow [a*(r+2)*3/100] - [a*r*3/100] = 360$$

$$\rightarrow a*6/100 = 360$$

$$\rightarrow a = \text{Rs } 6,000$$

Hence, option c is correct.

Q.109) Ganesh lends some money to his friend at 5% per annum of the interest rate. After 2 years, the difference between the Simple and the compound interest on money is Rs 50. What will be the value of the amount at the end of 3 years, if compounded annually?

- a) 23,152.5 Rs
- b) 23,500 Rs
- c) 22,750 Rs
- d) 22,850 Rs

Q.109) Solution (a)

If P is the principal and r is the rate of interest, then the difference between simple interest and compound interest for 2 years = $Pr^2/100^2$

It is given that the difference is Rs 50 and the rate of interest is 5% per annum.

Principle, P = Rs 20,000

Amount at the end of 3 years = $P [1+(5/100)]^3$

$$20,000 [1+(5/100)]^3 = 23,152.5 \text{ Rs}$$

Hence option a is correct.

Q.110) Ravi purchases 90 pens and sells 40 pens at a gain of 10% and 50 pens at a gain of 20%. Had he sold all of them at a uniform profit of 15% he would have got Rs. 40 less. Find the cost price of each pen.

- a) Rs. 80
- b) Rs. 75
- c) Rs. 90
- d) Rs. 100

Q.110) Solution (a)

Let the CP of each pen be Rs. 100

At the profit of 10%, SP of 40 pens = $(100 + 10) \times 40 = \text{Rs. } 4400$

At the profit of 20%, SP of 50 pens = $(100 + 20) \times 50 = \text{Rs. } 6000$

SP of 90 pens = Rs. $(4400 + 6000) = \text{Rs. } 10400$

CP of 90 pens = Rs. $(90 \times 100) = \text{Rs. } 9000$

At the profit of 15%, SP of 90 pens = Rs. $(90 \times 115) = \text{Rs. } 10350$

Difference in SP = Rs. $(10400 - 10350) = \text{Rs. } 50$

If the difference is Rs. 50, then CP = Rs. 100

If the difference is Rs. 40, then CP

$$= 100 \times 40 / 50$$

$$= \text{Rs. } 80$$

Q.111) A shopkeeper sells steel plates at the rate of Rs 45 each and earns a commission of 4%. He also sells copper utensils at the rate of Rs 80 each and earns a commission of 20%. How much amount of commission will he earn in two weeks, if he sells 10 steel plates and 6 copper utensils a day?

- a) Rs 1,890
- b) Rs 1,950
- c) Rs 1,596
- d) Rs 2,050

Q.111) Solution (c)

Commission on 1 steel plate = $45 \times 4 / 100$

Commission on 1 copper utensil = $80 \times 20 / 100$

$$= 10 \times 45 \times 4 / 100 + 6 \times 80 \times 20 / 100 = 18 + 96 = 114$$

Therefore, the commission earned in 2 weeks = Rs $114 \times 14 = \text{Rs } 1,596$

Q.112) From a container of milk, 5 litres of milk is replaced with 5 litres of water. This process is repeated. Thus in two attempts, the ratio of milk and water became 81:19. The initial amount of milk in the container was

- a) 50 litres
- b) 45 litres
- c) 40 litres
- d) 25 litres

Q.112) Solution (a)

Remaining milk = Initial concentration $(1 - \text{Quantity taken out}/\text{Total quantity})$

Concentration of milk in the final mixture = $81/(81+19) = 81/100$

Let initially, milk in the container = x litres

$$81 = 100(1-5/x)^2$$

$$81/100 = (1-5/x)^2$$

$$(1-5/x)^2 = (9/10)^2$$

$$1-5/x = 9/10$$

On solving, $x = 50$ litres

Therefore, the initial quantity of milk in the container was 50 litres.

Read the following passage and the answer the items that follow. Your answers to these items should be based on the passages only.

The whole biosphere, like the individual organisms that live inside it, exists in a chemically dynamic state. In this homeostatic system, a great number of organic compounds are synthesized, transformed, and decomposed continuously; together, these processes constitute the major parts of the carbon cycle. For the smooth operation of this cycle, degradation is just as important as synthesis: the green plants produce great quantities of polymers, such as cellulose, and innumerable other compounds like alkaloids, terpenes, and flavonoids, that green plants cannot use as sources of energy during respiration. The release of the carbon in these compounds for recycling depends almost entirely on the action of both aerobic and anaerobic

bacteria and certain types of fungi. Some bacteria and fungi possess the unique and extremely important biochemical asset of being able to catalyze the oxidation of numerous inert products, thereby initiating reaction sequences that produce carbon dioxide and so return much carbon to a form that actively enters into life cycles once again.

Q.113) The passage contains information that would answer which of the following questions about the carbon cycle?

1. What are some of the compounds that are broken down in the carbon cycle?
2. Why are some compounds that are involved in the carbon cycle less reactive than others?
3. What role do bacteria and fungi play in the carbon cycles?

Choose the correct code

- a) 1 only
- b) 2 only
- c) 1 and 2 only
- d) 1 and 3 only

Q.113) Solution (d)

In the passage it is information about the compounds that are broken down in the carbon cycle and the role bacteria and fungi play in the carbon cycle are clearly mentioned.

Q.114) Which of the following is the primary reason that degradation is as important as synthesis to the smooth operation of the carbon cycle as implied by the author?

- a) Most of the polymers and organic compounds found in the plant kingdom are chemically unstable.
- b) The synthesis of some organic material deprives life processes of an energy source.
- c) Decomposition permits the recycling of carbon that would otherwise be fixed in certain substances.
- d) Many organisms cannot use plants as a source of food, but can feed on bacteria and Fungi.

Q.114) Solution (c)

From the passage it can be inferred that that degradation is as important as synthesis to the smooth operation of the carbon cycle as decomposition permits the recycling of carbon that

would otherwise be fixed in certain substances.

Q.115) The author's contention about the importance of bacteria and fungi in the production of energy for life processes would be most clearly strengthened if which of the following were found to be true?

- a) Both aerobes and anaerobes provide sources of energy through the decomposition of organic material.
- b) Most compounds containing carbon are unavailable as energy sources except to some bacteria and fungi.
- c) Bacteria and fungi break down inert material in ways that do not involve oxidation.
- d) Many compounds remain inert, even in the presence of bacteria and fungi.

Q.115) Solution (b)

Some bacteria and fungi possess the unique and extremely important biochemical asset of being able to catalyze the oxidation of numerous inert products, thereby initiating reaction sequences that produce carbon dioxide and so return much carbon to a form that actively enters life cycles once again.

Read the following passages and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

The first battle of the American Revolution occurred at Lexington, Massachusetts, in 1775. The American colonists were angry about numerous taxes issued by the British king. In 1776, the colonists issued the Declaration of Independence, a document written by Thomas Jefferson that outlined America's intention to become a new country separate from England. England wanted to maintain control of America, and vowed to fight the colonists. The war lasted eight long years. The Americans won many important battles such as those at Saratoga and Yorktown. Many American heroes emerged such as George Washington, Thomas Jefferson, and Benjamin Franklin. Finally, in 1781, the British surrendered at Yorktown, Virginia, and a new nation was born two years later.

Q.116) Why did the war take place?

- a) Colonists were angry about their bad living conditions.
- b) England attacked the colonists.

- c) Colonists were angry about having to pay so many taxes.
- d) Colonists wanted to have more land.

Q.116) Solution (c)

It is clearly stated in the passage that "The American colonists were angry about numerous taxes issued by the British king".

Hence option c is the correct answer.

Passage 2

Plastics are now widely present in the environment, as visible waste along coastlines, in lakes and rivers, and even in the soil. The recent finding that micro plastic particles are found even in 'safe' bottled water indicates the magnitude of the crisis. There is little doubt that the global production of plastics, at over 300 million tonnes a year according to the UN Environment Programme, has overwhelmed the capacity of governments to handle what is thrown away as waste. Micro plastics are particles of less than 5 mm that enter the environment either as primary industrial products, such as those used in scrubbers and cosmetics or via urban waste water and broken-down elements of articles discarded by consumers. Washing of clothes releases synthetic microfibers into water bodies and the sea. The health impact of the presence of polypropylene, polyethylene terephthalate and other chemicals in drinking water food and even inhaled air may not yet be clear, but indisputably these are contaminants. Research evidence from complementary fields indicates that accumulation of these chemicals can induce or aggravate immune responses in the body. More studies, as a globally coordinated effort, are necessary to assess the impact on health.

Q.117) According to the passage what has added to the crisis of plastic?

- a) Presence of plastic along the coastlines
- b) Finding of micro plastic in safe bottled drinking water
- c) Its aggravated effects on immune responses in the body
- d) Washing of clothes which releases synthetic microfibers into water bodies and the sea

Q.117) Solution (b)

The recent finding that micro plastic particles are found even in 'safe' bottled water indicates the magnitude of the crisis.

Passage 3

Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider. Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read-only in parts; others to be read, but not curiously; and some few to be read wholly and with diligence and attention. Some books may also be read by deputy, and extracts made of them by others; but that would be only in the less important arguments and the meaner sort of books; else distilled books are like common distilled waters, flashy things. Reading makes a full man, conference a ready man, and writing an exact man. And therefore if a man writes little, he had need have a good memory; if he confers little, he had need have a present wit; and if he read little, he had need have much cunning to seem to know that he doth not. Histories make men wise, poets witty, the mathematics subtle, natural philosophy deep, moral grave, logic and rhetoric able to contend.

Q.118) What can be done about the 'meaner' sort of books?

- a) to be read but not to contradict and confute
- b) to be read curiously
- c) to be read, but not curiously
- d) they can be "read by deputy and extracts made of them by others"

Q.118) Solution (d)

"Some books may also be read by deputy, and extracts made of them by others, but that would be only in the less important arguments and the meaner sort of books". Hence option d is correct.

Q.119) Two persons X and Y went to a Stationary shop. A purchased 5 pens, 2 notebooks and 6 pencils and used up all his money. B purchased 6 pens, 6 notebooks and 18 pencils and paid 50% more than what A had paid. What percentage of the A's money was spent on pens?

- a) 12.5%
- b) 15%
- c) 16.66%
- d) 25%

Q.119) Solution (c)

Let the amount spent by A be 'x'

According to the question,

$$5 \text{ pen} + 2 \text{ notebooks} + 6 \text{ pencils} = x$$

$$6 \text{ pens} + 6 \text{ notebooks} + 18 \text{ pencils} = 1.5x$$

By solving both the equations we get,

$$\text{Pens} = 0.1666x = 16.66\%$$

Q.120) The price of commodity X increases by 40 paise every year while the price of commodity Y increases by 15 paise every year. If in 2001, the price of commodity X was Rs 4.20 and that of Y was Rs 6.30, in which year commodity X will cost 40 paise more than the commodity Y?

- a) 2010
- b) 2011
- c) 2012
- d) 2013

Q.120) Solution (b)

Suppose commodity X will cost 40 paise more than Y after z years.

$$\text{Then, } (4.20 + 0.40z) - (6.30 + 0.15z) = 0.40$$

$$0.25z = 0.40 + 2.10$$

$$\Rightarrow z = (2.50/0.25) = 10$$

Therefore, X will cost 40 paise more than Y, 10 years after 2001 i.e., 2011.

Directions for the following 3 (three) questions:

Study the problem statements given below and answer the questions that follow.

Five boys Ashwin, Dipesh, Eshan, Chetan and Bipin and five girls Parul, Komal, Radha, Savita and Vimala sit in two rows facing towards each other. All the boys are in one row and all the girls in the other row

Eshan who is to the immediate right of Bipin and opposite to Parul is not at any end.

Radha, who is immediate to the right of Komal and opposite to Chetan, is at one of the ends

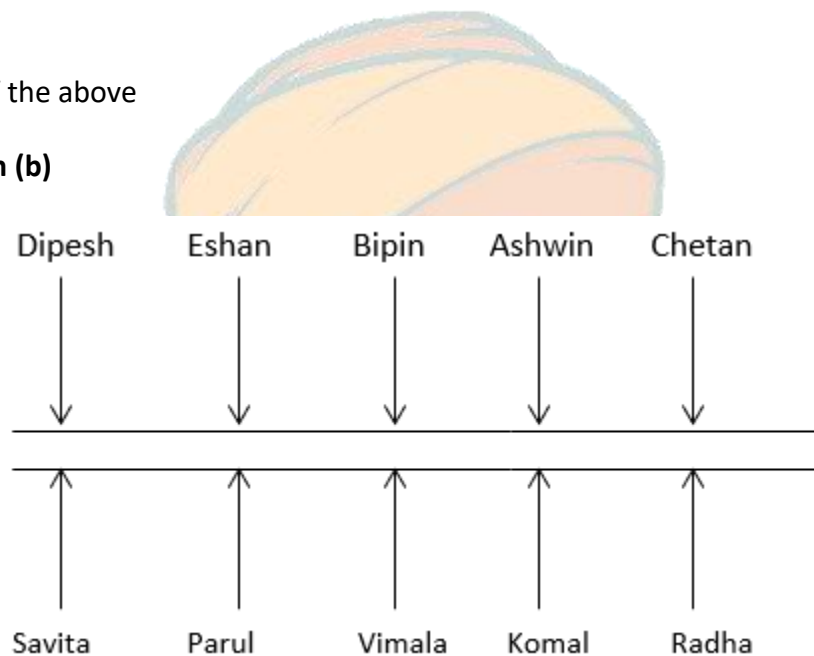
Ashwin is opposite to Komal who is the third to the right of Savita.

Dipesh and Vimala are not opposite each other

Q.121) Who is in the middle of the row of boys?

- a) Ashwin
- b) Bipin
- c) Dipesh
- d) None of the above

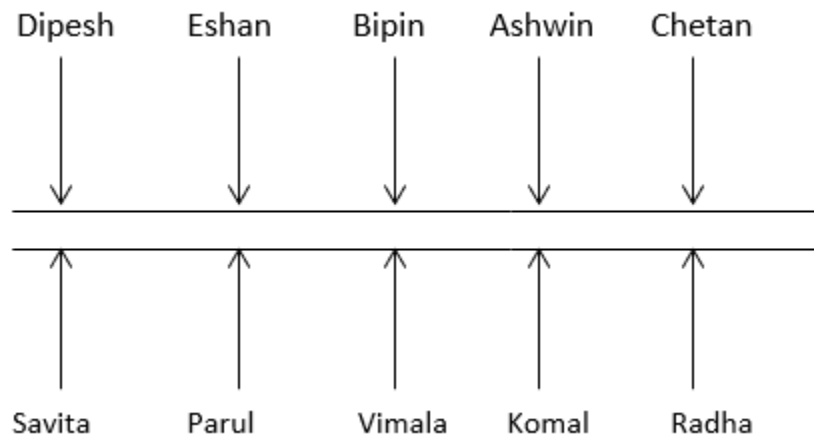
Q.121) Solution (b)



Q.122) Who is opposite of Dipesh?

- a) Komal
- b) Savita
- c) Parul
- d) Radha

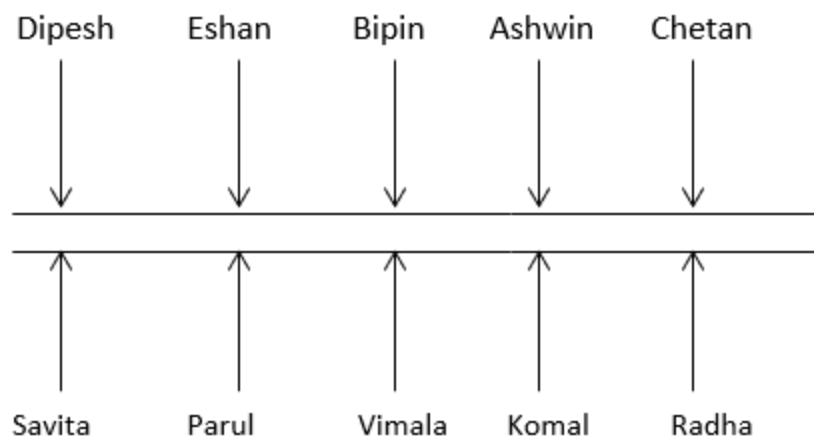
Q.122) Solution (b)



Q.123) Who is immediately to the right of Parul?

- a) Radha
- b) Savita
- c) Vimala
- d) Komal

Q.123) Solution (c)



Q.124) A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq. feet, how many feet of fencing will be required?

- a) 34 m
- b) 40 m
- c) 60 m
- d) 88 m

Q.124) Solution (d)

We have: $l = 20$ ft. and $lb = 680$ sq ft.

So, $b = 34$ ft.

Length of fencing = $(l + 2b) = (20 + 68)$ ft. = 88 ft.

Q.125) A clock loses 5 minutes every hour and was set right at 11AM on a Monday. When will it show the correct time again?

- a) 11 AM on Sunday
- b) 11 AM on Tuesday
- c) 11 AM on Wednesday
- d) 11 AM on Saturday

Q.125) Solution (a)

A faulty clock will show correct time when it loses or gains 12 Hours.

In the given problem, clock loses 5 Minutes in an hour. So, 1 Minute lost in every 12 minutes (60 minutes / 5 minutes = 12 minutes).

Now, for losing 12 hours i.e. 720 Minutes ($12 \times 60 = 720$) it will take $720 \times 12 = 8640$ Minutes = 144 Hours = 6 Days.

So, Clock will show correct time after 6 days from 11AM Monday.

Thus, Answer is 11AM on Sunday.

Q.126) Nitin remembers that his sister Krupa had certainly been in Pune for one day after 17th February but before 21st February. While his mother remembers that, Krupa had certainly visited Pune before 20th February. If both of them are correct, then on which day in February had Krupa visited Pune?

- a) Either 18th or 19th
- b) 18th
- c) 19th
- d) Cannot be determined

Q.126) Solution (a)

According to the Nikhil, Krupa might have visited on 18th, 19th or 20th->1

According to his mother, Krupa might have visited on 18th or 19th->2

From 1 and 2, we can conclude that Krupa had visited Pune on either 18th or 19th.

Q.127) Kusuma and Vanitha invest in a business in the ratio 3:2. If 10% of the total profit goes to charity and A's share is Rs 540, the total profit is

- a) 1200 Rs
- b) 1000 Rs
- c) 1500 Rs
- d) 1800 Rs

Q.127) Solution (b)

Let the total profit be Rs 100.

After paying to charity, A's share = $90 \times \frac{3}{5} = 54$ Rs

If A's share is Rs 54, total profit = 100 Rs

If A's share is RS 540, total profit = $100 \times (540/54) = 1000$ Rs

Q.128) A library has an average of 510 visitors on Sundays and 240 on other day. The average number of visitors in a month of 30 days starting with Sunday is

- a) 280
- b) 285
- c) 290
- d) 295

Q.128) Solution (c)

As the month begin with Sunday, so there will be five Sundays in the month. So result will be

$$\{(510 \times 5) + (240 \times 25)\} / 30 = 8550 / 30 = 285$$

Q.129) A grey coloured solid cube is painted with black on all sides and cut into 27 cubes of equal size. How many cubes have only one side black?

- a) 8
- b) 6
- c) 4
- d) 2

Q.129) Solution (b)

Those cubes which are on the face of the main cube but neither on sides or corners which only have one face painted black. So, there will be only one cube placed at the centre of each face with such criteria fulfilled. Therefore, only 6 cubes will have only one side coloured with Black.

Q.130) Ashish, Aamir and Anshul invested Rs.18000, Rs.24000 and Rs.8000 respectively in a business. Aamir left after six months. If after eight months, there was a gain of Rs.4400, then what will be the share of Anshul?

- a) Rs.800
- b) Rs.1000
- c) Rs.1600
- d) Rs.1800

Q.130) Solution (a)

Ratio of investment of Ashish, Aamir and Anshul during 8 months = $(18000 \times 8) : (24000 \times 6) : (8000 \times 8)$

= 144: 144: 64 = 9: 9: 4

Anshul's share = Total Profit * Ratio of (Anshul's investment / Total of Investment) = $\text{Rs.}4400 \times \frac{4}{22} = \text{Rs.}800$

Read the following passage and answer the questions that follow the passage. Your answer to these questions should be based on passage only.

Terrorism is the deliberate use or threat of violence against civilians by a non-state entity (individual or group) in pursuit of a political or religious goal. Terrorism—or, more precisely, Salafi-Takfiri terrorism of the type perpetrated by ISIS—is now perceived by people around the globe as the leading danger to their national security. A Pew study published in August 2017

found shares of national publics ranging from 62 percent in Ghana to 88 percent in France—and including 74 percent of U.S. respondents as well as 77 percent of Germans, 74 percent of Indonesians, and 66 percent of Indians—saying that ISIS is the top security threat facing their country.

These concerns have large implications. Even among the world's most advanced democracies, fear of terrorism often intertwined with worries about immigration, particularly from Muslim-majority countries—is a driver of populist nationalism, support for illiberal alternatives, and heightened danger that civil liberties and the rule of law will be eroded. If liberal democracies in Europe, North America, and parts of Asia are especially vulnerable to terrorism, moreover, is that not a warning to other countries pondering liberalization that strengthening rights, freedoms, and legal guarantees could be too risky? Will not a more closed society—one that rejects or curtails such liberal-democratic niceties—be better able to defend itself against the terrorist scourge? At the very least, the relationship between regime types and contemporary trends in terrorism ought to be clearly understood in order to promote better risk analysis and counter-terrorism policy both at home and abroad.

Q.131) According to the passage, what is the driver of popular nationalism?

1. Fear of terrorism.
2. Threat of immigration from Muslim majority countries.

Choose the correct code

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None of the above

Q.131) Solution (c)

The second paragraph of the passage states “Even among the world's most advanced democracies, fear of terrorism—often intertwined with worries about immigration, particularly from Muslim-majority countries—is a driver of populist nationalism.....”

Hence option c is the correct answer

Q.132) What is the closest meaning in the dictionary to the word ‘scourge’?

- a) Threat
- b) Dispatch

- c) Slain
- d) Binge

Q.132) Solution (a)

Scourge means threat, terror, to punish severely.

Q.133) At what time between 7 and 8 o'clock will the hands of a clock be in the same straight line but, not together?

- a) 5 min past 8
- b) $5(5/11)$ min past 7
- c) $5(3/11)$ min past 7
- d) $5(6/11)$ min past 7

Q.133) Solution (b)

When the hands of the clock are in the same straight line but not together, they are 30-minute spaces apart.

At 7 o'clock, they are 25 min spaces apart.

The minute hand will have to gain only 5 min spaces.

55 min spaces are gained in 60 min

5 min spaces are gained in $(60/55)*5$ min = $5(5/11)$ min

Therefore, the required time = $5(5/11)$ min past 7

Q.134) Anchan and Ananya are two colleagues working in ABC Communications, and each of them earned an investible surplus of Rs 1,50,000 during a certain period. While Ananya is a risk-averse person, Anchan prefers to go for higher return opportunities. Ananya uses her entire savings in Public Provident Fund (PPF) and National Saving Certificates (NSC). It is observed that one-third of the savings made by Ananya in PPF is equal to one-half of her savings in NSC. On the other hand, Anchan distributes his investible funds in share market, NSC and PPF. It is observed that his investment in share market exceeds his savings in NSC and PPF by Rs 20,000 and Rs 40,000 respectively. The difference between the amount invested in NSC by Ananya and Anchan is

- a) 10, 000 Rs
- b) 12, 000 Rs
- c) 18, 000 Rs
- d) 25, 000 Rs

Q.134) Solution (a)

Let 'x' be the amount invested by Anchan in share market. Therefore, the amount invested by him in NSC and PPF will be 'x – 20,000' and 'x – 40,000' respectively.

It is given that, $x + (x - 20,000) + (x - 40,000) = 1,50,000$

$x = 70,000$.

Hence, the amount invested by Anchan in NSC = $x - 20,000 = 50,000$.

It is given that one-third of the savings made by Ananya in PPF is equal to one-half of her savings in NSC.

Let 'y' be the amount invested by Ananya in NSC. Then we can say that she invested $(1,50,000 - y)$ in PPF.

$$(1,50,000 - y)/3 = y/2$$

$$\Rightarrow 3,00,000 - 2y = 3y$$

$$\Rightarrow y = 60,000$$

Therefore, the difference between the amount invested in NSC by Ananya and Anchan = $60,000 - 50,000 = \text{Rs } 10,000$.

Hence, option a is correct.

Q.135) Find the missing alphabet:

H	C	?
B	F	E
P	R	T

Select the correct answer:

- a) D
- b) G
- c) S
- d) K

Q.135) Solution (a)

If we assign the each letters their place value in alphabetical order

H=8	C=3	20/5=4=D
B=2	F=6	E=5
P=8x2=16	R=3x6=18	T=4x5=20

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

Dolphins are regarded as the friendliest creatures in the sea and stories of them helping drowning sailors have been common since Roman times. The more we learn about dolphins, the more we realize that their society is more complex than people previously imagined. They look after other dolphins when they are ill, care for pregnant mothers and protect the weakest in the community, as we do. Some scientists have suggested that dolphins have a language but it is much more probable that they communicate with each other without needing words. Could any of these mammals be more intelligent than man? Certainly the most common argument in favour of man's superiority over them that we can kill them more easily than they can kill us is the least satisfactory. On the contrary, the more we discover about these remarkable creatures, the less we appear superior when we destroy them.

Q.136) The fact that the writer of the passage thinks that we can kill dolphins more easily than they can kill us

- a) means that they are better adapted to their environment than we are
- b) shows that dolphins have a very sophisticated form of communication
- c) proves that dolphins are not the most intelligent species at sea
- d) does not mean that we are superior to them

Q.136) Solution (d)

On the contrary, the more we discover about these remarkable creatures, the less we appear superior when we destroy them.

From this we can infer that killing a dolphin does not make a man superior.

Passage 2

Detective stories tend to glorify crime. Murderers, gangsters and crooks all kinds are described as tough, cunning and courageous individuals who know how to take care of themselves and how to get what they want. In James McCain's *The Postman Always Rings twice*, for instance the villain is much more an impressive character than his victim. He is casual brave smart and successful with women. It is true that he finally gets caught. But he is punished for a crime that he did not commit, so that his conviction is hardly a triumph of justice. Besides, looking back over the exciting life of the criminal, the reader might conclude that it was worth the risk.

Q.137) According to this passage, a criminal in a detective story generally gets caught

- a) for the crimes he has committed
- b) because of his careless mistakes
- c) because the police is smarter than the criminals
- d) for the crimes he has not committed

Q.137) Solution (d)

....It is true that he finally gets caught. But he is punished for a crime that he did not commit

Q.138) A rectangular piece of paper is 22 cm long and 10 cm wide. A cylinder is formed by rolling the paper along its length. Find the volume of the cylinder.

- a) 275 cm^3
- b) 280 cm^3
- c) 385 cm^3
- d) 392 cm^3

Q.138) Solution (c)

When the paper is rolled along its length, the circumference of the cylinder formed will be equal to the length and its height will be equal to the breadth of the rectangle.

Let 'r' be the radius and 'h' be the height of the cylinder formed.

$2\pi r = 22$, hence $r = 77/22$ and $h = 10$

Hence, the volume of the cylinder = $\pi r^2 h = 22/7 \times (77/22)^2 \times 10 = 385 \text{ cm}^3$

Q.139) Taj Mahal at Agra gets an average of 5000 visitors on Sundays and 1400 visitors on other days. Then find the average number of visitors per day if the month has 30 days starting with Sunday.

- a) 1800
- b) 2000
- c) 2200
- d) 2800

Q.139) Solution (b)

If a month starts with Sunday then that month will have 5 Sundays

So, the total number of visitors on 5 Sundays will be $5 \times 5000 = 25,000$

Then the total number of visitors on the remaining 25 days = $25 \times 1400 = 35,000$

Therefore, the average number of visitors per day = $(25,000 + 35,000) / 30 = 2,000$

Q.140) A watch gain 5 seconds in 3 minutes and was set right at 7 am. If it shows 4:15 in the afternoon on the same day, what is the correct time?

- a) 3 pm
- b) 4 pm
- c) 4.30 pm
- d) 5.15 pm

Q.140) Solution (b)

The watch gains 5 seconds in 3 minutes \Rightarrow 1 minute in 36 minutes

From 7 am to 4:15, the incorrect watch has moved 9 hours and 15 minutes = 555 minutes.

When the incorrect watch moves for 37 minutes, correct watch moves for 36 minutes.

When the incorrect watch moves for 1 minute, correct watch moves for $36/37$ minutes

When the incorrect watch moves for 555 minutes, correct watch moves for $(36/37) \times 555 = 36 \times 15$ minutes = 9 hours

9 hours from 7 am is 4 pm.

Therefore, the correct time is 4 pm.

Q.141) 5 persons A, B, C, D and E and their respective wives recently dined together and were seated at a circular table. The seats were so arranged that men and women alternated and each woman sat at a distance of three places from their husband. Mrs C sat to the left of Mr A. Mrs E sat two places to the right of Mrs B. Who sat to the right of Mr A?

- a) Mrs D
- b) Mrs E
- c) Mrs B
- d) Mrs B or D

Q.141) Solution (d)

Mrs A can't be sitting next to her husband as per the seating arrangement. Wives sit three places away from their husbands.

Mrs C is sitting to the left of Mr A. So, she can't be sitting to his right.

Mrs E is sitting two places to the right of Mrs B (and not Mrs C). So, she can't be sitting right next to Mr A.

Mrs B and Mrs D are the remaining two wives and each is equally likely to be sitting to the right of Mr A

Hence, option d is the correct answer.

Q.142) There are five houses P, Q, R, S and T. P is right of Q and T is left of R and right of P. Q is right of S. Which house is in the middle?

- a) P
- b) Q
- c) T
- d) R

Q.142) Solution (a)

From the information given in the question

We have, SQPTR

Hence, the person in the middle is P

Read the following three passages and answer the items that follow. Your answers to these items should be based on the passages only.

Passage 1

Brown et al. (2001) suggest that 'metabolic theory may provide a conceptual foundation for much of ecology just as genetic theory provides a foundation for much of evolutionary biology'. One of the successes of genetic theory is the diversity of theoretical approaches and models that have been developed and applied. A Web of Science (v. 5.9. Thomson Reuters) search on genetic* + theor* + evol* identifies more than 12000 publications between 2005 and 2012. Considering only the 10 most-cited papers within this 12000 publication set, genetic theory can be seen to focus on genome dynamics, phylogenetic inference, game theory and the regulation of gene expression. There is no one fundamental genetic equation, but rather a wide array of genetic models, ranging from simple to complex, with differing inputs and outputs, and divergent areas of application, loosely connected to each other through the shared conceptual foundation of heritable variation.

Q.143) Which of the following best captures the essence of the passage?

- a) Genetic theory has a wide range of theoretical approaches and applications and metabolic theory must have the same in the field of ecology.
- b) Genetic theory has a wide range of theoretical approaches and application and is foundational to evolutionary biology and metabolic theory has the potential to do the same for ecology.
- c) Genetic theory provides an example of how a range of theoretical approaches and applications can make a theory successful.
- d) Genetic theory has evolved to spawn a wide range of theoretical models and applications but metabolic theory need not evolve in a similar manner in the field of ecology.

Q.143) Solution (b)

The paragraph starts with the idea that metabolic theory may provide a conceptual foundation

for ecology just as genetic theory did for evolutionary biology. It goes on to explain how the genetic theory worked: through wide array of genetic models loosely connected to each other through the shared conceptual foundation. Option b captures both ideas.

Option a states that metabolic theory "must have" the same range of theoretical approaches and applications. This is not what the paragraph says.

Option c does not mention metabolic theory while option d is incorrect, based on the information in the paragraph.

Passage 2

Aesthetic political representation urges us to realize that 'the representative has autonomy with regard to the people represented' but autonomy then is not an excuse to abandon one's responsibility. Aesthetic autonomy requires cultivation of 'disinterestedness' on the part of actors which is not indifference. To have disinterestedness, that is, to have comportment towards the beautiful that is devoid of all ulterior references to use – requires a kind of aesthetic commitment; it is the liberation of ourselves for the release of what has proper worth only in itself.

Q.144) Which among the following is the most logical inference that can be drawn from the passage?

- a) Disinterestedness is different from indifference as the former means a non-subjective evaluation of things which is what constitutes aesthetic political representation.
- b) Aesthetic political representation advocates autonomy for the representatives drawing from disinterestedness, which itself is different from indifference.
- c) Disinterestedness, as distinct from indifference, is the basis of political representation.
- d) Aesthetic political representation advocates autonomy for the representatives manifested through disinterestedness which itself is different from indifference.

Q.144) Solution (b)

The main idea of the paragraph is that aesthetic political representation requires that the actor has autonomy with regard to the portrayal and that this involves the cultivation of disinterestedness (which is different from indifference) on part of the actors. Option b captures the essence of the paragraph.

Option a talks of a "non-subjective evaluation of things", something that is not mentioned in the paragraph.

Option c does not include the key word 'aesthetic'.

Option d states that autonomy is "manifested through" (shown clearly by) disinterestedness. The paragraph only urges the cultivation of disinterestedness in order to liberate oneself from all ulterior references.

Passage 3

The dominant hypotheses in modern science believe that language evolved to allow humans to exchange factual information about the physical world. But an alternative view is that language evolved, in modern humans at least, to facilitate social bonding. It increased our ancestors' chances of survival by enabling them to hunt more successfully or to cooperate more extensively. Language meant that things could be explained and that plans and past experiences could be shared efficiently.

Q.145) Which of the following best captures the essence of the passage?

- a) From the belief that humans invented language to process factual information, scholars now think that language was the outcome of the need to ensure social cohesion and thus human survival.
- b) Since its origin, language has been continuously evolving to higher forms, from being used to identify objects to ensuring human survival by enabling our ancestors to bond and cooperate.
- c) Experts are challenging the narrow view of the origin of language, as being merely used to describe facts and label objects, to being necessary to promote more complex interactions among humans.
- d) Most believe that language originated from a need to articulate facts, but others think it emerged from the need to promote social cohesion and cooperation, thus enabling human survival.

Q.145) Solution (d)

The main idea of the paragraph is that challenging the dominant hypothesis that language evolved in order to facilitate exchange of factual information; an alternative view holds that language evolved in order to facilitate social bonding and improve chances of survival. Option d captures all key ideas.

Option a incorrectly uses the word "invented".

Option b talks about language "continuously evolving to higher forms". The paragraph does not state this.

Option c states "experts" are challenging the "narrow" view of origin of language. The paragraph only talks about "an alternative view".

Hence, option d is correct.

Read the following passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

The forest fire in Tamil Nadu's Theni hills that claimed the lives of 11 trekkers and severely injured many others is a heart-rending tragedy, with many of them being women who were out to celebrate International Women's Day. Questions are naturally being asked whether the Forest Department failed to stop treks during the February-June fire season, and whether the response to the early distress alerts was slow. It appears that the difficult terrain gave many of those caught in the fire line little chance, and proved challenging for the State's rescue operation launched in coordination with the Central government. The residents of the hills played a commendable role in aiding the effort. Yet, several families are left scarred as they try to cope with the loss of loved ones. The tragedy has highlighted the lack of emphasis on safety in the way such events are organised. Indeed, if there is any lesson that can be learnt from the episode, it is that such adventures should place safety above everything else, and that the government has a key role to play in evolving the protocols. In a country with rich landscapes and forests, the wish to briefly leave the urban life behind and take to the outdoors is but natural.

Q.146) Which of the following best describes the central theme of the given passage?

- a) The fatal incident of women who struck in forest fire while celebrating International Women's Day
- b) Heroic role played by the residents of the hills in rescuing the fire incident victims
- c) Lack of emphasis on safety while going outdoors
- d) None of the above

Q.146) Solution (c)

Option a is just an extracted statement from the passage which does not give the whole picture of the passage.

Option b is not the theme

In passage safety is emphasised number of times which talks about the central theme of the

passage. Forest fire incident is just an example to show that how safety measures are ignored while going outdoors.

Hence option c is correct.

Passage 2

There is strong evidence that alcohol causes cancer at seven sites in the body and probably others. Current estimates suggest that alcohol-attributable cancers at these sites make up 5.8% of all cancer deaths world-wide. Confirmation of specific biological mechanisms by which alcohol increases the incidence of each type of cancer is not required to infer that alcohol is a cause.

Q.147) What is the stated relation between alcohol consumption and the occurrence of the cancer?

1. There is no evidence to show any correlation between the two.
2. Strong evidence is available to show that they are directly correlated atleast for the seven sites into discussion.

Which of the following is correct?

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.147) Solution (b)

It is clearly mentioned that strong evidence is there to prove the correlation between alcohol and the cancer at the seven discussed sites.

Passage 3

I've been following the economic crisis for more than two years now. I began working on the subject as part of the background to a novel, and soon realized that I had stumbled across the most interesting story I've ever found. While I was beginning to work on it, the British bank Northern Rock blew up, and it became clear that, as I wrote at the time, "If our laws are not extended to control the new kinds of super-powerful, super-complex, and potentially super-

risky investment vehicles, they will one day cause a financial disaster of global-systemic proportions." I was both right and too late, because all the groundwork for the crisis had already been done—though the sluggishness of the world's governments, in not preparing for the great unravelling of autumn 2008, was then and still is stupefying. But this is the first reason why I wrote this book: because what's happened is extraordinarily interesting. It is an absolutely amazing story, full of human interest and drama, one whose byways of mathematics, economics, and psychology are both central to the story of the last decades and mysteriously unknown to the general public. We have heard a lot about "the two cultures" of science and the arts—we heard a particularly large amount about it in 2009, because it was the fiftieth anniversary of the speech during which C. P. Snow first used the phrase. But I'm not sure the idea of a huge gap between science and the arts is as true as it was half a century ago—it's certainly true, for instance, that a general reader who wants to pick up an education in the fundamentals of science will find it easier than ever before. It seems to me that there is a much bigger gap between the world of finance and that of the general public and that there is a need to narrow that gap, if the financial industry is not to be a kind of priesthood, administering to its own mysteries and feared and resented by the rest of us. Many bright, literate people have no idea about all sorts of economic basics, of a type that financial insiders take as elementary facts of how the world works. I am an outsider to finance and economics, and my hope is that I can talk across that gulf.

My need to understand is the same as yours, whoever you are. That's one of the strangest ironies of this story: after decades in which the ideology of the Western world was personally and economically individualistic, we've suddenly been hit by a crisis which shows in the starkest terms that whether we like it or not—and there are large parts of it that you would have to be crazy to like—we're all in this together. The aftermath of the crisis is going to dominate the economics and politics of our societies for at least a decade to come and perhaps longer.

Q.148) According to the passage, the author is likely to be supportive of which one of the following programmes?

- a) An educational curriculum that promotes economic research.
- b) An educational curriculum that promotes developing financial literacy in the masses.
- c) The complete nationalisation of all financial institutions.
- d) Economic policies that are more sensitively calibrated to the fluctuations of the market.

Q.148) Solution (b)

The author laments the fact that many bright, literate people have no idea about all sorts of economic basics. So, he is likely to be supportive of an educational curriculum that promotes developing financial literacy in the masses.

Note that option 'a' is incorrect as it talks of economic "research".

There is no basis for options c and d in the passage. Hence, option b is correct.

Q.149) All of the following, if true, could be seen as supporting the arguments in the passage, except:

- a) The story of the economic crisis is also one about international relations, global financial security, and mass psychology.
- b) Economic crises could be averted by changing prevailing ideologies and beliefs.
- c) The failure of economic systems does not necessarily mean the failure of their ideologies.
- d) The difficulty with understanding financial matters is that they have become so arcane.

Q.149) Solution (c)

The author calls the crisis "absolutely amazing story, full of human interest and drama, one whose byways of mathematics, economics, and psychology are both central to the story". So, Option 'a' is in line with the arguments in the passage.

While beginning to work on the crisis the author wrote that was extending the laws to control risky investment vehicles was essential to avoid a global financial disaster. Option b, too, is in line with the arguments in the passage.

The author also states that "there is a need to narrow that gap, if the financial industry is not to be a kind of priesthood, administering to its own mysteries and feared and resented by the rest of us". In other words, financial matters have become very arcane and difficult to understand. So, option 'd' supports the arguments in the passage.

However, in the last paragraph, the author states that the economic crisis shows the failure of the personally and economically individualistic ideology of the Western world. Hence, option c, if true, does not support the arguments in the passage.

Q.150) Three partners shared the profit in a business in the ratio 4:6:8. They had partnered for 12 months, 8 months and 6 months respectively. What was the ratio of their investments?

- a) 4:6:8
- b) 4:7:8
- c) 4:8:16
- d) 4:9:16

Q.150) Solution (d)

Let their investments be Rs x for 12 months, Rs y for 8 months and Rs z for 6 months respectively.

Then, $12x : 8y : 6z = 4 : 6 : 8$

Now, $12x/8y = 4/6 \Leftrightarrow 9x=4y \Leftrightarrow y=9x/4$

And, $12x/6z = 4/8 \Leftrightarrow 4x=z \Leftrightarrow z=4x$

Therefore, $x : y : z = x : 9x/4 : 4x = 4 : 9 : 16$

