



### **IBPS AFO Previous Year Question Paper (2023)**

### Directions (1-10): Read the following passage carefully and answer the questions given below them.

The sum and variation of our biological wealth, known as biodiversity, is essential to the future of this planet. The importance of our planet's biodiversity was strongly \_\_\_\_\_ at the United Nations Biodiversity Conference in Montreal, Canada. 188 country representatives adopted an agreement to "halt and reverse" biodiversity loss by conserving 30% of the world's land and 30% of the world's oceans, known as the 30×30 pledge. India currently hosts 17% of the planet's human population and 17% of the global area in biodiversity hotspots, placing it at the helm to guide the planet in becoming biodiversity champions. In response to this call, the Union Budget 2023 mentioned "Green Growth" as one of the seven priorities or Saptarishis. The **emphasis** on green growth is welcome news for India's biological wealth as the country is facing serious losses of natural assets such as soils, land, water, and biodiversity. The National Mission for a Green India aims to increase forest cover and **protect** existing forested lands. The Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) is particularly significant because of the extraordinary importance of mangroves and coastal ecosystems in mitigating climate change. Finally, the Amrit Dharohar scheme directly mentions our biological wealth and is expected to "encourage optimal use of wetlands, and enhance biodiversity, carbon stock, eco-tourism opportunities and income generation for local communities". If implemented in letter and spirit, Amrit Dharohar, with its emphasis on sustainability by balancing competing demands, will benefit aquatic biodiversity and ecosystem services. It is critical that these programmes respond to the current state of the country's biodiversity with evidence-based implementation. A science-based and inclusive monitoring programme is critical for the success of these efforts. Finally, each of these efforts must be inclusive of local and nomadic communities where these initiatives will be implemented. Traditional knowledge of these communities should be integrated into the implementation plans.

### Q1. According to the passage, the 30×30 pledge taken in the United Nations Biodiversity Conference emphasizes on which of the following agenda?

(a) Curbing and restoring the loss of our biological wealth.

- (b) Effective conservation of at least 30% of the world's lands and oceans.
- (c) Explore advanced and innovative technologies to nurture agriculture.
- (d) All members of the group will come together to take effective measures.

(e) Only (a) and (b)

### Q2. As mentioned in the passage, what makes India a mentor of the world to become a biodiversity champion?

- (a) India's geographical location which makes it a suitable habitat for many species.
- (b) India's occupancy of seventeen percent of the global area in biodiversity hotspots.
- (c) India's human population which is seventeen percent of the world's total population.

L

- (d) Only (b) and (c)
- (e) All of these

_		

Т

# Test Prime

### ALL EXAMS, ONE SUBSCRIPTION



70,000+ Mock Tests



600+ Exam Covered



Personalised Report Card



Previous Year Papers



Unlimited Re-Attempt



500% Refund



### **ATTEMPT FREE MOCK NOW**





### Q3. Why is there a need to pursue green growth in India, as mentioned in the passage?

- (a) To restrain the usage of chemicals and pesticides in the harvest.
- (b) Since India is facing a serious crisis of natural assets.
- (c) To promote organic farming to foster economic growth.
- (d) It can reduce the prevalence of air pollution-related diseases
- (e) None of these

### Q4. As suggested by the author in the passage, what is the target set under National Mission for Green India?

- (a) It aims at protecting forest lands and enhancing India's forest cover.
- (b) Ecological restoration of shifting cultivation areas, mangroves and scrubs.
- (c) Its goal is to adopt comprehensive soil health management practices.
- (d) Increase forest-based income of households in and around forest areas.
- (e) None of these

### Q5. Which of the following measures is crucial for ensuring success of the government programmes, as mentioned by the author?

- (a) Providing environmental data which should be based on research and analysis.
- (b) Adequate and timely allocation of funds required for programmes implementation.
- (c) Comprehensive monitoring programme that should be based on scientific observations.
- (d) Formation of a separate committee to monitor the execution of programmes.
- (e) None of these

### Q6. Which of the following words is a synonym of 'EMPHASIS' as highlighted in the passage?

- (a) baffle
- (b) ambiance
- (c) corroboration
- (d) revoke
- (e) stress

### Q7. Which of the following words is an antonym of 'PROTECT' as highlighted in the passage?

L

- (a) refine
- (b) ravage
- (c) abate
- (d) perplex
- (e) ample

### Q8. Which of the following statements is INCORRECT with respect to the information given in the passage?

- (a) Saptarishis signifies the seven priorities of the Union government.
- (b) Efficient use of wetlands is one of the motives of Amrit Darohar.

(c) Mangroves and coastal ecosystem play an important role in curtailing climate change.

- (d) Traditional knowledge of local communities should be considered
- for governmental programmes.

(e) All are correct

2

Т





### Q9. Which of the following words is the most suitable word for the blank given in the passage?

- (a) decree
- (b) conferred
- (c) articulated
- (d) prevailed
- (e) adjourned

#### Q10. Which of the following words is a synonym of 'integrated'?

- (a) convulse
- (b) vitiate
- (c) resonate
- (d) amalgamate
- (e) muffle

### Directions (11-20): Read the following passage and answer the given questions based on the information provided in the passage.

A vostro account is an account that domestic banks hold for foreign banks in the former's domestic currency, in this case, the rupee. Domestic banks use it to provide international banking services to their clients who have global banking needs. It is an integral offshoot of correspondent banking that entails a bank (or an intermediary) to facilitate wire transfers, **conduct** business transactions, accept deposits and gather documents on behalf of the other bank. It helps domestic banks gain wider access to foreign financial markets and serve international clients without having to be physically present abroad.

The SRVA is an additional arrangement to the existing system that uses freely convertible currencies and works as a complimentary system. For perspective, freely convertible currencies refer to currencies **permitted** by rules and regulations of the concerned country to be converted to major reserve currencies (like the U.S. dollar or pound sterling) and for which a fairly active market exists for dealings against major currencies. The existing systems thus require maintaining balances and positions in such currencies.

The framework entails three important components, namely, invoicing, exchange rate and settlement. Invoicing entails that all exports and imports must be denominated and invoiced in INR. The exchange rate between the currencies of the trading partner countries would be market-determined. To **conclude**, the final settlement also takes place in Indian National Rupee (INR). The authorised domestic dealer banks (those authorised to deal in foreign currencies) are required to open SRVA accounts for correspondent banks of the partner trading country. Domestic importers are required to make payment (in INR) into the SRVA account of the correspondent bank against the invoices for the supply of goods or services from the overseas seller/supplier. Similarly, domestic exporters are to be paid the export proceeds (in INR) from the balances in the **designated** account of the correspondent bank of the partner country.

As for availing an advance against exports, it would be the responsibility of the domestic bank to accord foremost priority to ensure that the available funds are used to meet existing payment obligations, that is, from the already \_\_\_\_\_(I)\_\_\_\_\_ export orders or export payments in the pipeline. All reporting of cross-border transactions is to be done in accordance with the extant guidelines under the Foreign Exchange Management Act (FEMA), 1999.





### Q11. What, according to the author, does the term 'Vostro account' imply?

(a) An account in domestic banks to collect funds in order to sell bank's own shares

(b) An account in correspondent bank that holds state government funds

(c) An account held by domestic bank on behalf of a foreign bank to provide international services to its clients.

(d) An account that allows to save money in multiple countries, they have higher interest rates but with limited freedom

(e) An account that provides domestic currency to the foreign shareholders of a company.

### Q12. How are exchange rates determined in the framework mentioned in the passage?

(a) They are fixed by the government of the partner trading country.

- (b) They are determined by authorized domestic dealer banks.
- (c) They are determined by the international market.
- (d) They are fixed against major reserve currencies.

(e) They are determined by the Foreign Exchange Management Act.

### Q13. Which of the following statements signifies **SRVA** account, as the passage suggests?

(a) The SRVA account enables domestic banks to physically operate abroad.

(b) The SRVA account facilitates wire transfers between international clients.

(c) The SRVA account converts funds based on the mutually held regulations between the both countries.

(d) The SRVA account complements existing systems using freely convertible currencies

(e) None of these

### Q14. Which of the following statements with reference to the Vostro account is/are correct?

(a) Domestic banks use vostro accounts to supply national banking services for local uses.

(b) Vostro account encourages domestic banks to provide services to international clients

- (c) The account assists domestic banks to expand the financial market globally.
- (d) Only (a) and (b)
- (e) Both (b) and (c)

### Q15. Choose the most appropriate antonym of the word 'permitted', as highlighted in the given passage.

(a) Prescribed

- (b) Strolled
- (c) Prohibited

(d) Ruined

(e) Rambled

### Q16. Choose the most appropriate synonym of the word 'conduct', as highlighted in the given passage.

Т

(a) Operate

- (b) Withhold
- (c) Relinquish
- (d) Possess
- (e) Yield
  - 4





### Q17. Which of the following statements with reference to the domestic bank is/are correct?

(a) Domestic banks bear the responsibility of ensuring the funds meet the existing payment obligations.

(b) A domestic bank is obligated to hold a vostro bank for foreign exchanges

(c) Domestic importers make payments into the SRVA account of the equivalent bank against the invoices for the supply of goods.

(d) Only (b) and (c)

(e) Both (a) and (c)

Q18. Choose the most appropriate Synonym of the word 'designated', as highlighted in the given passage.

- (a) Wield
- (b) Distinct
- (c) Incognito
- (d) Assigned
- (e) Harness

Q19. Choose the most appropriate antonym of the word 'conclude', as highlighted in the given passage.

- (a) Terminate
- (b) Inaugurate
- (c) Persist
- (d) Suspend
- (e) Lapse

Q20. Choose the most appropriate filler from the following words to fill in the blank (I), as highlighted in the given passage.

- (a) pretended
- (b) protract
- (c) indestructible
- (d) adjacent
- (e) executed

Directions (21-25): Each question below has two sentences with blanks, which is indicating that something has been omitted. Find out which of the words from options can be used to fill up the blanks to make sentences meaningful.

Q21. (I) Half of the residents were \_\_\_\_\_\_ to get vaccinated.

(II)People are \_\_\_\_\_\_ to invest money in risky funds.

(a) quandary

(b) reluctant

(c) invasive

(d) expunge

(e) relent

Adda247 UPSC YouTube
Adda247 UPSC Telegram
Adda247 App





Q22. (I) New technology to measu	are pulse rate is morethan the earlier one.
(II) Stainless steel blades are des	igned to provide sharp and cuts.
(a) lament	
(b) pledged	
(c) negligible	
(d) inflict	
(e) precise	
Q23. (I) Flourished mushroom fa	rming will help farmers to poverty.
(II) Authorities are hoping to	urban problems the capital is facing.
(a) alleviate	
(b) aggravate	
(c) amplify	
(d) avalanche	
(e) confront	
Q24. (I) Troops were forced to	, whe <mark>n en</mark> emy deceived and attacked suddenly.
(II) He was planning to	from the <mark>proje</mark> ct after he got a new job opportunity.
(a) merge	
(b) annex	
(c) retreat	
(d) juggle	
(e) append	
Q25. (I) Scientists have	the galaxy theory after finding the evidence.
(II) The judge acquitted the prise	oner after the advocate presented the proof that his
innocence.	
(a) propelled	
(b) corroborated	
(c) evoked	
(d) subsided	
(e) muffled	
Directions (26.20). Dood cach as	ntongo to find out whather there is any grammatical or idiamatic

Directions (26-30): Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The corresponding letter of that part is the answer. If the given sentence is grammatically and contextually correct, then choose option "No error" as answer. (Ignore errors of punctuation, if any)

 Q26. I am looking forward (A)/ to receive back (B)/the cash from (C)/ the company today(D)/ No error (E).

 (a) A

 (b) B

 (c) C

 (d) D

 (e) No error

 6
 Adda247 UPSC YouTube

 Adda247 UPSC Telegram





Q27. He is waking up (A)/ early in the morning (B)/ and goes for a (C)/ morning walk (D)/ No error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q28. Some cultures have (A)/adopted the traditional (B)/ Western manner of (C)/ conducting weddings (D).

- (a) A
- (b) B

(c) C

- (d) D
- (e) No error

Q29. The judicious construction of (A)/ green areas offer even (B)/ more storage capacity at (C)/ times of peak rainfall (D)/ No error (E).

- (a) A
- (b) B
- (c) C
- (d) D
- (e) No error

Q30. The minister advised that (A)/ it was time to (B)/ switch to solar power (C)/ to generate electricity (D)/ No error (E).

- (a) A
- (b) B
- (c) C
- (d) D

(e) No error

## Directions (31-35): In the following passage there are blanks, each of which has been denoted by letters. For each blank, five options are given. Choose the most appropriate word from the options that fits the blank appropriately.

Ransomwares have emerged as the most \_\_\_\_\_\_ (A) of malicious cyberattacks. Here, the \_\_\_\_\_\_ (B) demand hefty payments for the release of withheld data. There are other malwares that could \_\_\_\_\_\_ (C) all kinds of computer systems. With the lines between the physical and digital realms blurring rapidly, every critical infrastructure, from transportation, power and banking systems, would become extremely \_\_\_\_\_\_ (D) to the assaults from hostile state and non-state actors. With cyber threats capable of undermining our critical infrastructure, industry and security, a \_\_\_\_\_\_ (E) cyber security policy is the need of the hour.

T

### Q31. Which of the following words will fit in the given blank (A)?

- (a) optimal
- (b) warhead
- (c) designated
- (d) predominant
- (e) manoeuvred
  - 7

T





### Q32. Which of the following words will fit in the given blank (B)?

- (a) sinless
- (b) perpetrators
- (c) companion
- (d) administer
- (e) convicted

### Q33. Which of the following words will fit in the given blank (C)?

- (a) infect
- (b) sluggish
- (c) blast
- (d) recommend
- (e) convey

### Q34. Which of the following words will fit in the given blank (D)?

- (a) preserving
- (b) defending
- (c) vigilant
- (d) endorsing
- (e) vulnerable

### Q35. Which of the following words will fit in the given blank (E)?

- (a) biased
- (b) forbidden
- (c) delicate
- (d) profuse
- (e) comprehensive

Directions (36-40): In each of the questions given below, four words have been highlighted. These four words may or may not have been placed in their correct positions. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that should replace each other. If the sentence is correct as it is, then select option (e) as your choice.

Q36. Some women have catalyze (A) clean energy-based technologies (B) to adopted (C) their businesses (D).

Т

(a) B-D & A-C
(b) A-C
(c) A-D & B-C
(d) A-B & C-D
(e) No replacement required

8





Q37. The dependent (A) of a/an acumen (B) is efficacy (C) on the organization (D) of its employees.
(a) B-D
(b) A-B
(c) A-D & B-C
(d) A-C & B-D

(e) No replacement required

Q38. According to the **evidence (A)** given by him, he was not **occurred (B)** at the spot where the **alleged (C)** incident **present (D)**.

(a) B-D

(b) A-B

(c) A-D & B-C

(d) A-B & C-D

(e) No replacement required

**Q39.** It is **important (A)** to **implemented (B)** that well-designed and **remember (C)** interventions can make a **difference (D)**.

(a) B-D

(b) A-B

(c) B-C

(d) A-B & C-D

(e) No replacement required

Q40. What issue (A) to the most (B) man common (C) is his bread-and-butter matters (D).

Т

- (a) A-D & B-C
- (b) A-B

(c) B-C

(d) A-B & C-D

(e) No replacement required

Directions (41-45): In each question a word is given, corresponding to it three sentences are given. Choose the correct sentence(s) that has/have the correct usage of the word.

#### Q41. Liberty

(A) He has been given the **liberty** to take his all decisions in life.

- (B) Patients with mental illness need help, not loss of liberty.
- (C) It takes many years for a plant to grow **liberty** to provide fruits.
- (a) Only (A)

(b) Only (B)

(c) Only (C)

(d) Only (A) and (B)

(e) Only (A) and (C)

9

Adda247 UPSC YouTube

Adda247 App





### Q42. Futile

- (A) My friend and I **futile** a stat-up in the next year.
- (B) Persistent hard work never turns out **futile**.
- (C) It is **futile** to ask for permission to go out at night.
- (a) Only (A)
- (b) Only (B) and (C)
- (c) Only (C)
- (d) Only (A) and (B)
- (e) Only (A) and (C)

### Q43. Impediment

- (A) Electronic vehicle charger is still an **impediment** for buyers to adopt electric vehicles.
- (B) Most of us eat wheat and rice as **impediment** foods
- (C) The tectonic plates continually **impediment**, push and grate against each other.
- (a) Only (A)
- (b) Only (B)
- (c) Only (C)
- (d) Only (A) and (B)
- (e) Only (A) and (C)

### Q44. Vandalize

- (A) Investors planning to **vandalize** advantage of recent price swings.
- (B) Union Budget is aimed at **vandalizing** loan sanctions and credit flows.
- (C) Angry customers had **vandalized** the store before leaving.
- (a) Only (A)
- (b) Only (B)
- (c) Only (C)
- (d) Only (A) and (B)
- (e) Only (A) and (C)

### Q45. Disempower

(A) The neighbourhood tribunal met to **disempower** the prospect of building a park in the subdivision.

(B) The workers in the factory seemed to **disempower** their supervisor by constantly undermining his authority.

(C) Several districts **disempowered** their constitutes by taking away their rights to vote and therefore their influence.

Т

(a) Only (A)(b) Only (A) and (B)

- (c) Only (B)
- (d) Only (B) and (C)
- (e) Only (C)

Adda247 UPSC YouTube





Directions (46-50): In the following questions, sentences are given with a part in bold. The given phrase in bold may or may not contain an error. If phrase has error, one of the options following can replace the incorrect phrase. The correct phrase which replaces the erroneous phrase will be your answer. If the sentence is correct then select 'No improvement required' as your answer.

**Q46.** I don't **knows that he will** like surprise or not.

- (a) know that he will
- (b) know whether he will
- (c) know that he is
- (d) know either he will
- (e) No replacement required

### **Q47.** He exclaimed with sorrow **that he auctioned** his house last month to pay his debts.

- (a) that he was auctioned
- (b) that he has auctioned
- (c) that he had auctioned
- (d) that he had been auctioned
- (e) No replacement required

### **Q48.** He is only a child and still **looks for** his parents.

- (a) looks before
- (b) look for
- (c) look after
- (d) looks after
- (e) No replacement required

### **Q49.** Meditation is **the best way to get** rid of depression than medication.

- (a) the best method to get
- (b) a better way for get
- (c) a better way to get
- (d) the best way for get
- (e) No replacement required

**Q50.** One of the ways to beat dehydration **is to drink before** you get thirsty.

- (a) are to drink before
- (b) is to drinking before
- (c) are drink before
- (d) is drinking before
- (e) No replacement required

### Directions (51-55): Study the following information carefully and answer the questions given below:

Six boxes are kept one above the other in the form of a stack. Each box is of three different colours- Red, Pink and Blue. Each two boxes are of the same colour.

At most two boxes are kept above box Q. Red colour box is kept above box Q. Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S. Blue colour box is kept two boxes below box T. Box P is kept above box T. Only three boxes are kept between box U and blue colour box.





### Q51. Which among the following box is kept at the topmost position in the stack?

(a) The blue colour box
(b) Box T
(c) The pink colour box
(d) Box P
(e) Box U

#### Q52. Which of the following statement(s) is/are true?

I. No box is kept below box U
II. Box T is kept adjacent to box Q
III. Box R is kept below box S
(a) Both I and III
(b) Only III
(c) Both II and III
(d) Only I
(e) All I, II and III

#### Q53. Which among the following combination is correct?

- (a) Box S- Pink
- (b) Box P-Blue
- (c) Box U- Blue
- (d) Box R- Red
- (e) None of these

#### Q54. How many boxes are kept between box P and the pink colour box?

- (a) One
- (b) Two
- (c) Three
- (d) Either one or three
- (e) None

#### Q55. Which among the following colour does box R have?

- (a) Pink
- (b) Red
- (c) Blue
- (d) Either pink or red
- (e) Either blue or pink

Directions (56-60): In each of the questions below some statements are given followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Т

### **Q56. Statements:** All Neons are Crayons

Only a few Crayons are Colours No Colours are Paint

12

Adda247 UPSC YouTube





#### **Conclusions:**

- I. Some Neons are ColoursII. No Crayons is Paint is a possibility(a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or II follows
- (d) If neither conclusion I nor II follows
- (e) If both conclusions I and II follow

### Q57. Statements:

All Knee is Shoulder Only Shoulder is Legs At most Shoulder are Beauty 100% Beauty are Lakme **Conclusions:** I. No Legs is Lakme II. Some Shoulder is Lakme (a) If only conclusion I follows (b) If only conclusion I follows (c) If either conclusion I or II follows (d) If neither conclusion I nor II follows (e) If both conclusions I and II follow

#### Q58. Statements:

All Cloud is May Each May is Lotion No Lotion is Motion **Conclusions:** I. No Cloud is Motion II. Some May can be Motion (a) If only conclusion I follows (b) If only conclusion I follows (c) If either conclusion I or II follows (d) If neither conclusion I nor II follows (e) If both conclusions I and II follow

### Q59. Statements:

Only a few Brush is Knife At least Knife is a Cup Some Cup is not Book **Conclusions:** I. All Brush can be Knife II. Some Knife is not Book (a) If only conclusion I follows (b) If only conclusion I follows (c) If either conclusion I or II follows (d) If neither conclusion I nor II follows (e) If both conclusions I and II follow

II both conclusions I and II follow

L

Т





**Q60. Statements:** All HK is PL Some HK is MD Only a few BR is PL No BR is ZO **Conclusions:** I. Some ZQ is PL II. No ZQ is PL (a) If only conclusion I follows (b) If only conclusion II follows (c) If either conclusion I or II follows (d) If neither conclusion I nor II follows

(e) If both conclusions I and II follow

Q61. How many such pair of letters are there in the word 'REPLICATION', each of which has as many letters between them as they have in the English alphabet (Both in forward and backward directions)?

- (a) None
- (b) One
- (c) Two
- (d) None of these
- (e) Three

### Directions (62-66): Study the following information carefully and answer the questions given below:

A certain number of persons sit in a linear row and all of them face north direction. Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R. S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P. The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.

#### Q62. How many numbers of persons sit in the row?

(a) 19				
(b) 21				
(c) 18				
(d) 20				
(e) 17				
Q63. Who	among the following p	erson sits fift	h to the right of O?	
(a) S				
(b) P				
(c) R				
(d) None o	f these			
(e) N				 
14	Adda247 UPSC Y	ouTube	Adda247 UPSC Telegram	Adda247 App





### Q64. How many persons sit between M and V?

- (a) Ten
- (b) Eight
- (c) Nine
- (d) Seven
- (e) More than ten

### Q65. Which of the following statement is true?

- (a) M sits to the left of O
- (b) More than one person sits between V and O
- (c) N sits sixth from the right end
- (d) Three persons sit to the left of V
- (e) None is true

Q66. If A sits second to the left of Q, then what will be the difference between the number of persons sits to the right of A and the number of persons sit to the left of S?

- (a) 3
- (b) 4
- (c) 2
- (d) 6
- (e) 5

Directions (67-71): 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 statements and answer the question given below.

Q67. Eight persons sit around a square table. Four persons sit at the corner and four persons sit at the middle of the sides of the table. All of them are facing towards the table. Who among the following persons sits immediate right of U?

### Statements:

**I.** Two persons sit between U and T. One person sits between T and R. A and B sits adjacent to each other. One person sits between B and T.

**II.** Two person sits between T and A. B sits opposite to A. T does not sit at the corner. One person sits between B and W. T sits immediately left of U.

(a) If the data in statement I alone is sufficient to answer the question while the data in statement II is not sufficient to answer the question.

(b) If the data in both statement I and statement II together are required to answer the question.

(c) If the data either in statement I alone or in statement II alone is sufficient to answer the question.

(d) If the data in statement II alone is sufficient to answer the question while data in statement I is not sufficient to answer the question.

(e) If the data in both statement I and statement II together are not sufficient to answer the question.





# Q68. Seven persons are going to attend the music class on different days of the same week starting from Tuesday but not necessarily in the same order. Who among the following persons attends music class on Thursday?

### Statements:

**I.** Two persons attend the music class between X and A. A either attends the music class on Tuesday or on Friday. X does not attend class on Monday. One person attends class between X and U.

**II.** B attends the class just before R. Two students attend the class between U and B. V attends class before M and after X.

(a) If the data in statement I alone is sufficient to answer the question while the data in statement II is not sufficient to answer the question.

(b) If the data in both statement I and statement II together are required to answer the question.

(c) If the data either in statement I alone or in statement II alone is sufficient to answer the question.

(d) If the data in statement II alone is sufficient to answer the question while data in statement I is not sufficient to answer the question.

(e) If the data in both statement I and statement II together are not sufficient to answer the question.

### Q69. Five persons i.e., Y, N, G, H and I visit to different countries i.e., USA, India, Australia, Japan and China but not necessarily in the same order. Who among the following persons visits to Australia?

I. H does not visit to India. I do not visit to the USA and Japan. G does not visit to Japan. Y does not visit to China.

**II.** G does not visit to Australia. N does not visit to USA and Japan. H visits to India. Y does not visit the USA. (a) If the data in statement I alone is sufficient to answer the question while the data in statement II is not sufficient to answer the question.

(b) If the data in both statement I and statement II together are required to answer the question.

(c) If the data either in statement I alone or in statement II alone is sufficient to answer the question.

(d) If the data in statement II alone is sufficient to answer the question while data in statement I is not sufficient to answer the question.

(e) If the data in both statement I and statement II together are not sufficient to answer the question.

# Q70.Eight persons i.e., R, E, Q, W, N, C, X and T sit around a circular table for lunch and all of them are facing towards the center but not necessarily in the same order. Who among the following person sits opposite to Q?

I. Two persons sit between X and T. N sits immediately left of T. Two persons sit between N and E.

**II.** W and R sit adjacent to each other. One person sits between W and C. E does not sit adjacent to X and C. (a) If the data in statement I alone is sufficient to answer the question while the data in statement II is not sufficient to answer the question.

(b) If the data in both statement I and statement II together are required to answer the question.

(c) If the data either in statement I alone or in statement II alone is sufficient to answer the question.

(d) If the data in statement II alone is sufficient to answer the question while data in statement I is not sufficient to answer the question.

(e) If the data in both statement I and statement II together are not sufficient to answer the question.





### Q71. Seven persons i.e., D-J are sitting in a row facing north but not necessarily in the same order. Who among the following persons sits immediate right of H?

I. No one sits to the right of I. Two persons sit between I and F. One person sits between F and G

**II.** Two persons sit between F and the person who sits immediately right of I. One person sits between I and D. E sits third to the right of D.

(a) If the data in statement I alone is sufficient to answer the question while the data in statement II is not sufficient to answer the question.

(b) If the data in both statement I and statement II together are required to answer the question.

(c) If the data either in statement I alone or in statement II alone is sufficient to answer the question.

(d) If the data in statement II alone is sufficient to answer the question while data in statement I is not sufficient to answer the question.

(e) If the data in both statement I and statement II together are not sufficient to answer the question.

### Directions (72-75): Study the following information carefully and answer the given questions.

Point P is 5m south of point Q. Point R is 10m east of point P. Point S is 5m south of point R. Point T is 5m west of point S. Point H is 9m west of point Q.

### Q72. If Point U is 10m east of Point Q, then Point S will be how far and in which direction from Point U?

- (a) 10m, north
- (b) 10m, south
- (c) 5m, south
- (d) 5m, north
- (e) 5m, east

### Q73. Point S is in which direction with respect to Point Q?

- (a) North-west
- (b) North
- (c) South- east
- (d) East
- (e) North-east

Q74. If Point V is 5m west of Point T, then Point P will be how far and in which direction from Point V?

- (a) 5m, south
- (b) 5m, north
- (c) 10m, south
- (d) 10m, north
- (e) 15m, south

### Q75. What is the total distance from point H to point R?

(a) 19m (b) 30m (c) 27m (d) 24m (e) 20m 17 Adda247 UPSC YouTube | Adda247 UPSC Telegram | Adda247 App





### Directions (76-80): Answer the following questions based on the information given below.

Eight people A, B, C, D, P, Q, R and S sit around a circular table facing towards the center. Some of them are men and some of them are women. Not more than two same gender persons sit adjacent to each other. B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman. A man sits 2<sup>nd</sup> to the right of R. Q sits opposite to B and both are of same gender. C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men. None of the immediate neighbours of D are of opposite gender.

### Q76. Which of the following statement is true as per the final arrangement?

- (a) D is a man.
- (b) P sits to the immediate right of B.
- (c) P sits opposite to A.
- (d) Q sits to the immediate right of D.
- (e) Q is a woman.

### Q77. Who among the following sits to the immediate left of S?

- (a) B
- (b) R
- (c) D
- (d) P
- (e) Q

### Q78. What is the position of P with respect to C?

- (a) 3<sup>rd</sup> to the right
- (b) 2<sup>nd</sup> to the right
- (c)  $3^{rd}$  to the left
- (d) 4<sup>th</sup> to the left
- (e) 2<sup>nd</sup> to the left

#### Q79. Which of the following pair of persons are of the same gender?

- (a) A and P
- (b) B and P
- (c) Q and D
- (d) C and S
- (e) P and R

### Q80. Four of the following five are alike in a certain way and thus forms a group, then who among the following doesn't belong to that group?

18	Adda247 HPSC YouTube	 Adda247 UPSC Telegram	 Adda247 App	
(e) (.				
(d) Q				
(c) D				
(b) R				
(a) B				





Directions (81-83): In this question, relationship between different elements is shown in the statements. The statements are followed by two conclusions. Study the conclusions based on the given statement and selects the appropriate answer.

**Q81. Statements:**  $A > B = C \le D$ ,  $F > C \ge E$ , E < G = H**Conclusions:** I. H > B II. G < A(a) If only conclusion I is true (b) If only conclusion II is true (c) If either conclusion I or II is true (d) If neither conclusion I nor II is true (e) If both conclusions I and II are true

**Q82. Statements:**  $45 > 18 = 63, 100 \ge 45 < 72$ **Conclusions:** I. 72 > 18 II. 100 < 63 (a) If only conclusion I is true (b) If only conclusion II is true (c) If either conclusion I or II is true (d) If neither conclusion I nor II is true (e) If both conclusions I and II are true

### **Q83. Statements:** $\% > * = \& \le @, \$ > \& \ge ^ < ! = #$

Conclusions: I. \$ > \* II. % < # (a) If only conclusion I is true (b) If only conclusion II is true (c) If either conclusion I or II is true (d) If neither conclusion I nor II is true (e) If both conclusions I and II are true

### Directions (84-86): Study the following information carefully and answer the questions given below.

In the certain code language: "Holiday home is dream" is coded as "au bf iu ik" "Home is big decision" is coded as "el iu zk ik" "Holiday home makes money" is coded as "al cz bf iu" "Home rent earn money" is coded as "mo al iu nz"

### Q84. What may be the code of "Rent"?

- (a) mo
- (b) Either mo or nz
- (c) al
- (d) nz
- (e) None of these

#### Q85. What is the code of "Holiday"?

- (a) al
- (b) bf
- (c) cz
- (d) ik
- (e) None of these
  - 19

L





086. If "Earn money is good" is coded as "ik al mu nz", then what may be the code of "Holiday home rent"?

(a) zk cz mo

- (b) iu nz bf
- (c) iu bf mo
- (d) bf iu al
- (e) None of these

Directions (87-89): Study the following number series carefully and answer the questions given below.

259 674 359 427 783 921

Q87. If all the digits in each number are written in descending order from left to right within the number, then which of the given number will become the third smallest?

- (a) 359
- (b) 259
- (c) 921
- (d) 783
- (e) None of these

### Q88. What will be the multiplication of the third digit of second lowest number and third digit of largest number?

- (a) 11
- (b) 9
- (c) 10
- (d) 12
- (e) None of these

Q89. If first and third digit are interchanged within the number, then how many numbers will be divisible by 2?

- (a) Three
- (b) One
- (c) Two
- (d) Four
- (e) None of these

### Directions (90-94): Study the following information carefully and answer the questions given below:

Eight persons A-H have different designations i.e., Compliance Officer, Risk Manager, Financial analyst, Relationship Manager, Branch Manager, Loan Officer, Bank Teller and Customer Service Representative in a company. The order of seniority is the same as given above i.e., Compliance Officer is the senior-most designation and Customer Service Representative is the junior-most designation.

There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B. D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C. As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.





### Q90. What is the designation of E?

- (a) Bank Teller
- (b) Loan Officer
- (c) Customer Service Representative
- (d) Branch Manager
- (e) None of these

### Q91. How many designations are there between A and B?

- (a) More than three
- (b) Three
- (c) One
- (d) Two
- (e) None of these

### Q92. Which among the following statement(s) is/are true?

- I. A is the senior most person
- II. B is three designations senior to E
- **III.** No one is junior to E
- (a) Only II
- (b) Only I
- (c) Both I and II
- (d) All are true
- (e) None of these

### Q93. Who is designated as Loan Officer?

- (a) A
- (b) G
- (c) H
- (d) F
- (e) None of these

### Q94. If all the persons are ranked in alphabetical order from junior most to senior most, then how many persons remain at their same designation?

L

- (a) One
- (b) Two
- (c) Three
- (d) None
- (e) None of these

#### Q95. Identify the odd one out.

- (a) EHM
- (b) GBI
- (c) MJW
- (d) LMZ
- (e) UCX
  - 21

L





Q96. If we form a four-letter meaningful word by using the 2<sup>nd</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> letter from the left end of the word 'HOPEFUL' (Using each letter once), then which of the following will be the 2<sup>nd</sup> letter from right end of the meaningful word thus formed. If more than one meaningful word is formed, then mark Z as your answer. If no meaningful word is formed, then mark X as your answer?

- (a) Z
- (b) 0
- (c) L
- (d) U
- (e) X

Directions (97-99): Study the following information carefully and answer the questions given below:

In a certain code language;

"Voting related issue increases" is coded as "8R@ (\_I\_) 4V\$ 10Q@"

"Mostly new (\_II\_) activated" is coded as "10R@ 4H@ 10F@ 8U\$"

"Income source calculated recently" is coded as "6Q\$ (\_III\_) 12D@ 12H@"

### Q97. What comes in \_\_\_I\_\_?

- (a) 8H\$
- (b) 10E\$
- (c) 8H@
- (d) 12H@
- (e) None of these

### Q98. What comes in \_II\_?

- (a) Short
- (b) Profile
- (c) Banker
- (d) Sale
- (e) Picture

### Q99. What comes in \_III\_\_?

- (a) 6R@
  (b) 10R@
  (c) 6R\$
  (c) 10P#
- (d) 10T\$
- (e) 12S@

Q100. If 2 is subtracted from all the digits of the given element '@9#2\$5%7\*6&8' and then @ is replaced by 3, # is replaced by 2, \$ is replaced by 6, % is replaced by 5, \* is replaced by 7 and & is replaced by 4, then what will be the sum of the digits which are 2<sup>nd</sup> and 7<sup>th</sup> from the left end after rearrangement?

22	Adda247 UPSC YouTube	1	Adda247 UPSC Telegram	1	Adda247 App	
(e) 15						
(d) 12						
(c) 10						
(b) 19						
(a) 16						





Directions (101-105): Read the following line graph carefully and answer the questions given below. The line graph shows the total number of wooden and plastic chairs sold by five different shops.



Q101. Total wooden chairs sold by A and E together is what percentage more or less than the total plastic chairs sold by B and C together?

- (a) 2% (b) 0%
- (c) 100%
- (d) 75%
- (a) 2506

(e) 25%

Q102. The total plastic chairs sold by X is 20% less than the total wooden chairs sold by D. If the average of total wooden chairs sold by X, A and B is 390, then find the sum of the total plastic and wooden chairs sold by X.

- (a) 1025(b) 1030(c) 1110
- (d) 1050
- (e) 1115

Q103. If the price of each wooden and plastic chair sold by C is Rs 120 and Rs 200, respectively, then find the total revenue generated by C by selling all the wooden and plastic chairs.

(a) Rs 275000
(b) Rs 267000
(c) Rs 257600
(d) Rs 205000
(e) Rs 224000

23	Adda247 UPSC YouTube	





Q104. Find the difference between the total plastic chairs sold by E and the sum of the plastic and wooden chairs sold by B.

(a) 225 (b) 210

(c) 240

(d) 250

(u) 230

(e) 215

Q105. 40% and 45% of the wooden and plastic chairs sold by D are defective. Find the ratio of the sum of the total non-defective wooden and plastic chairs sold by D to the sum of the total wooden chairs sold by B and C.

(a) 35:44

(b) 32:47

(c) 33:41

(d) 34:49

(e) 37:44

Directions (106-110): Find out the missing term in the given number series.

24	Adda247 UPSC YouTube <u>Adda247 UPSC Telegram</u> <u>Adda247 App</u>
(e) 733.2	
(d) 734.2	
(c) 766.2	
(b) 800.2	
(a) 812.2	
<b>Q109.</b> 4.2,	?, 1517.2, 2358.2, 3258.2, 4219.2
(e) 88	
(d) 85	
(c) 90	
(b) 100	
(a) 95	,,,,,
<b>0108.</b> 75. 3	?. 122. 163. 225. 315
(e) 44	
(d) 41	
(c) 42	
(b) 40	
(a) 43	
<b>Q107.</b> ?, 69	9, 109, 164, 234, 319
(e) 110	
(d) 118	
(c) 120	
(b) 124	
(a) 125	
<b>Q106.</b> 68, 2	77, 88, 102, ? , 143





**Q110.** 45, 9, 36, ?, 24, 24 (a) 14 (b) 17 (c) 12 (d) 10

(e) 15

Q111. A man has Rs. P and he invested Rs. 400 from it at rate of 7.5% p.a. on simple interest. From remaining amount, the man invested at rate of 10% p.a. and 20% p.a. in the ratio of 5 : 3 on simple interest. If man received total Rs. 560 as interest after four years, then find P?

(a) 2400

(b) 1200

(c) 12000

(d) 600

(e) 3000

Q112. A mixture contains milk and water in the ratio of 13:17 respectively. If 180 ml of mixture is taken out and X ml of milk and 2X ml of water is added into the remaining mixture, then the resultant becomes 144 ml lesser than the original mixture. Find X?

(a) 16

(b) 14

(c) 12

(d) 19

(e) 10

Q113. A train whose length is 120 meters more than a platform and it crosses the platform in 11 seconds. If the train crosses a bridge whose length is 40 meters less than the platform in 10 seconds, then find the length of the train?

(a) 160 meters

- (b) 120 meters
- (c) 280 meters
- (d) 240 meters
- (e) 200 meters

Q114. The ratio of age of P three years later and age of Q, five years ago is 5:2 and sum of present ages of P and Q is 44 years. Find difference between age (in year) of P ten years hence and age of Q three years ago.

5	0					
(a) 22						
(b) 35						
(c) 23						
(d) 20						
(e) 19						
25	Adda247 UPSC	YouTube	Adda247 UPSC Telegram	I	Adda247 App	





Q115. The sum of three consecutive odd numbers and three consecutive even numbers together is 231. The smallest even number is nine less than that of smallest odd number. Find the largest odd number.

- (a) 45
- (b) 47
- (c) 51
- (d) 53
- (e) 57

Q116. A person invested Rs. X at rate of R% p.a. in scheme A and Rs. Y at rate of (R +4) p.a. in B for the same period of time on simple interest. If the ratio of X to Y is 1: 2 and the interest received from B is thrice of the interest received from A, then find value of R.

- (a) 6
- (b) 12
- (c) 8
- (d) 10
- (e) 4

Q117. The ratio of the cost price to the selling price of article A is 5:8. The cost price of article B is 25% more than the selling price of article A. If the loss on article B is 30% and the average selling price of articles A & B is Rs.112.5, then find the cost price of article B (in Rs).

- (a) 100
- (b) 125
- (c) 150
- (d) 175
- (e) 200

Q118. X starts to travel from point P to point Q at a speed of 7 km/hr at 3 AM and Y starts from point Q to point P at a speed of 4 km/hr at 5 AM. If they meet at 10 AM, then find the distance between P and Q.

- (a) 69
- (b) 96
- (c) 36
- (d) 63
- (e) 75

Q119. 'a' and 'b' are two numbers. Sum of 'a' and 'b' is 21 and product is 108. If 'c' is four more than the difference between 'a' & 'b', then find the product of 'b' & 'c' (a>b).

26	Adda247 UPSC YouTube	1	Adda247 UPSC Telegram	Adda247 App	
(e) 63					
(d) 49					
(c) 56					
(b) 72					
(a) 81					





Q120. Pipe P and Q can fill the tank in 10 hours and 20 hours respectively. If pipe R empty the tank in double the time taken by Q to fill that tank, then find the time taken by R to empty the tank which is filled by P and Q together in 5 hours.

(a) 30 hours

- (b) 40 hours
- (c) 50 hours
- (d) 20 hours
- (e) 10 hours

Directions (121-125): Read the following table carefully and answer the questions given below. The table shows the total songs downloaded by five persons in the year 2020. The table also shows the fraction of solo songs downloaded out of the total songs downloaded by these persons in the given year.

Note: Total songs downloaded = solo songs + duet songs.

Persons	Total songs	Solo songs
	downloaded	downloaded
Α	300	2/5
В	500	3/5
С	420	5/7
D	180	4/9
Е	360	5/12

Q121. Find the ratio of the total duet song downloaded by B and E together to the total solo song downloaded by A and C together.

- (a) 41:40
- (b) 41:43
- (c) 43:44
- (d) 42:41
- (e) 41:42

Q122. The total duet song downloaded by D and A together is what percentage more or less than the total songs downloaded B?

- (a) 44% (b) 40%
- (c) 42.5%
- (d) 44.5%
- (e) 42%

Q123. The total songs downloaded by F are 25% more than that of E. If the ratio of the total duet songs downloaded by F to B is 13:25, respectively, then find the difference between the total solo songs downloaded by C and F.

(a) 45						
(b) 52						
(c) 48						
(d) 54						
(e) 46						
27	Adda247 UPSC YouTube	I	Adda247 UPSC Telegram	I	Adda247 App	





Q124. The total classic songs downloaded by A are one-third of the total solo songs downloaded by E. Find the average number of classic songs downloaded by A and duet songs downloaded by D.

- (a) 75
- (b) 70
- (c) 60
- (d) 65
- (e) 50

Q125. The difference between the total duet songs downloaded by E and total solo songs downloaded by C is what percentage of the total songs downloaded by A?

- (a) 25%
- (b) 30%
- (c) 32.5%
- (d) 37.5%
- (e) 10%

Directions (126-130): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answers.

<b>Q126. I.</b> 2x	$x^2 - 17x + 26 = 0$	
<b>II.</b> 2y <sup>2</sup> – 6y	+ 4 = 0	
(a) x=y or r	no relation.	
(b) x≤y		
(c) x>y		
(d) x <y< th=""><th></th><th></th></y<>		
(e) x≥y		
<b>Q127. I.</b> 12	$2x^2 - 7x + 1 = 0$	
<b>II.</b> 6y <sup>2</sup> – 5y	+ 1 = 0	
(a) x=y or r	no relation.	
(b) x≤y		
(c) x>y		
(d) x <y< td=""><td></td><td></td></y<>		
(e) x≥y		
<b>Q128. I.</b> x <sup>2</sup>	+ 11x + 24 = 0	
<b>II.</b> $4y^2 + 13$	y + 10 = 0	
(a) x=y or r	no relation.	
(b) x≤y		
(c) x>y		
(d) x <y< td=""><td></td><td></td></y<>		
(e) x≥y		
28	Adda247 UPSC YouTube         Adda247 UPSC Telegram         Adda247 Ag	<u>p</u>





Q129. I.  $2x^2-19x+17=0$ II.  $3y^2-y-14=0$ (a) x < y(b)  $x \le y$ (c) x > y(d)  $x \ge y$ (e) x = y or no relation.

Q130. I.  $6x^2 + 17x + 5 = 0$ II.  $2y^2 + 21y + 49 = 0$ (a) x < y(b)  $x \le y$ (c) x > y(d)  $x \ge y$ (e) x = y or no relation

### Directions (131-135): Read the information car<mark>efu</mark>lly and answer the following questions.

**Company A:** Twenty employees have salary more than Rs. X. Number of employees having salary equal to and more than Rs. X is twenty-five and the number of employees having salary equal to and less than Rs. X are same as that of employees having more than Rs. X.

**Company B:** Number of employees having salary equal to X is double that of the employees in A. Ratio of number of employees in A to that of B is 2: 3 and number of employees having salary more than X is thirty.

### Q131. Find the ratio of the number of employees having salary less than Rs. X in company A to that of B.

(a) 3:5 (b) 5:4 (c) 1:4 (d) 3:4 (e) 2:3

Q132. Ratio of male to female in company A is 2: 3 and the half of the employees in A having salary more than Rs. X is female. If the 12.5% of the total females having salary equal to Rs. X, then find the number of females having salary less than Rs. X.

- (a) 11
- (b) 5
- (c) 10
- (d) 14
- (e) 12

**Q133.** Find the average number of employees having salary more than Rs. X in both the companies. (a) 28

29	Adda247 UPSC YouTube	Ι	Adda247 UPSC Telegram	I	Adda247 App	
(e) 15						
(d) 20						
(c) 25						
(b) 22						
(u) <u>2</u> 0						





Q134. Number of employees having salary more than Rs. X in both the company is approximately what percentage more or less that of the employees having less than Rs. X in both the company.

(a) 53%

(b) 33%

- (c) 23%
- (d) 63%
- (e) 43%

Q135. Total employees having salary equal to Rs. X in both companies are what percent of total number of employees in B.

- (a) 10%
- (b) 15%

(c) 20%

(d) 25%

(e) 30%

Q136. A boat covers D km downstream in 2T hours and it takes T hours when the boat covers (D – 400) km in still water. If the speed of boat in still water is six time the speed of current, then find the value of D.

(a) 750

(b) 710

(c) 740

(d) 730

(e) 700

Q137. P, Q and R together can do a work in 10 days, while Q alone can do a work in 30 days. If P alone takes 16 days less than R to complete the same work, then in how many days R can complete 50% of the same work.

- (a) 20 days
- (b) 15 days
- (c) 24 days
- (d) 18 days
- (e) 30 days

Q138. The average of four (P, Q, R and S) different numbers is 20 and P is 25% less than that of R. If the ratio of Q to that of R is 5 : 4 and the average of P, R and S is 20, then find the difference between P and S.

(a) 15						
(b) 20						
(c) 13						
(d) 17						
(e) 18						
30	Adda247 UPSC YouTube	I	Adda247 UPSC Telegram	Ι	Adda247 App	





Q139. A and B started a business with investment of Rs. x & Rs. (x +900) respectively. After eight months, B left the business. At the end of a year, the total profit is Rs.1450 and profit share of B is Rs.250 more than that of A. Find value of x.

(a) Rs.820

- (b) Rs.880
- (c) Rs.860
- (d) Rs.800
- (e) Rs.840

Q140. Two trains P and Q started their respective journey from point X & Y. Speed of train Q is 22 km/hr more than that of train P and distance between point X & Y is 510 km. If both trains meet in 5 hours 40 minutes, then find the speed of trains P and Q respectively (in km/hr).

- (a) 36, 58
- (b) 28, 50
- (c) 46, 68
- (d) 34, 56
- (e) 18, 40

Directions (141-145): Read the following pie chart carefully and answer the questions given below. The pie chart shows the percentage distribution of the total vehicles manufactured by a company in five different months.

**Note:** Total vehicles manufactured in April = 96.



Q141. Total vehicles manufactured in February is how many more or less than the total vehicles manufactured in March.

(a) 104 (b) 148					
(c) 148					
(d) 132					
(e) 184					
31	Adda247 UPSC YouTube	Ι	Adda247 UPSC Telegram	Ι	Adda247 App





Q142. If the total vehicles manufactured in June are 37.5% less than that in March, then find the average number of vehicles manufactured in June and January.

- (a) 145
- (b) 155
- (c) 165
- (d) 175
- (e) 135

Q143. 40% of the total vehicles manufactured in January are four-wheeler, and the rest are twowheelers and three-wheelers, in the ratio of 5:3, respectively. Find the ratio between the total three-wheeler vehicles manufactured in January and the total vehicles manufactured in April.

- (a) 7:16
- (b) 10:13
- (c) 8:11
- (d) 9:16
- (e) None of these

Q144. Find the central angle of the average number of vehicles manufactured in May and February (in degree).

- (a) 90
- (b) 144
- (c) 108
- (d) 72
- (e) 216

Q145. If 50% and two-third of the total vehicles manufactured in February and April, respectively, are sold, then the total vehicles unsold in April is what percentage of total unsold vehicle in February.

- (a) 33.33%
- (b) 22.22%
- (c) 66.67%
- (d) 11.11%
- (e) 9.09%

Q146. X spends 10% of the monthly income on children's education, 20% on household, 25% of the remaining on shopping. If he spends  $\frac{100}{7}$ % of the remaining income on entertainment and he saves Rs.3600, then find the monthly income of X.

(a) Rs.8000 (b) Rs.4000 (c) Rs.7200 (d) Rs.6400 (e) None of these 32 Adda247 UPSC YouTube Adda247 UPSC Telegram Adda247 App





Q147. If two types of sugar costing Rs.80 per kg and Rs.120 per kg are mixed in the ratio of 1: 3 and sold this mixture at the rate of Rs.143 per kg, then find the profit percentage?

(a) 25%

(b) 30%

(c) 35%

(d) 40%

(e) 20%

Q148. A man has 6 red and 5 black shirts. If two shirts are pick randomly, then what is the probability of getting both shirts of same color?

(a) 6/11

(b) 5/11

(c) 10/11

(d) 7/11

(e) 4/11

Q149. The sum of area of a circle & area of a rectangle is equal to 2136 sq. cm. The diameter of the circle is 42 cm. What is the difference between the circumference of the circle & the perimeter of the rectangle, if the breath of the rectangle is 30 cm?

(a) 42 cm

(b) 22 cm

(c) 30 cm

(d) 11 cm

(e) 18 cm

Q150. 21 men can do a piece of work in 15 days and 35 women can do a piece of work in 11 days. With the same efficiency 18 men and 20 women can do another piece of work in '(Y – 4)' days and 'Y' days respectively. Find the value of Y?

(a) 40

(b) 44

(c) 35

(d) 38

(e) 39





### Solutions

### S1. Ans.(e)

**Sol.** By going through the lines of the first paragraph of the passage we can conclude that option (e) is the correct choice. Refer to lines, that mentions, "**188 country representatives adopted an agreement to** "**halt and reverse**" **biodiversity loss by conserving 30% of the world's land and 30% of the world's oceans, known as the 30×30 pledge.**"

### S2. Ans.(d)

**Sol.** The correct choice is option(d). To validate the answer, refer to the lines that mentions, "**India currently hosts 17% of the planet's human population and 17% of the global area in biodiversity hotspots, placing it at the helm to guide the planet in becoming biodiversity champions."** 

### S3. Ans.(b)

Sol. To validate the answer, refer to line which mentions, "The emphasis on green growth is welcome news for India's biological wealth as the country is facing serious losses of natural assets such as soils, land, water, and biodiversity."

### S4. Ans.(a)

**Sol.** The correct choice is the option (a). To validate the answer, refer to the lines that mentions, **"The National Mission for a Green India aims to increase forest cover and protect existing forested lands."** 

### S5. Ans.(c)

**Sol.** To validate the answer, refer to the lines of the second paragraph that mention, **"A science-based and inclusive monitoring programme is critical for the success of these efforts."** 

### S6. Ans.(e)

#### Sol. 'Stress' is a synonym of 'emphasis.

- (a) baffle: totally bewilder or perplex.
- (b) ambiance: the character and atmosphere of a place.
- (c) corroboration: evidence which confirms or supports a statement, theory, or finding; confirmation.
- (d) revoke: officially cancel (a decree, decision, or promise).
- (e) stress: to give importance to something

### S7. Ans.(b)

### Sol. 'Ravage' is an antonym of 'protect'.

(a) refine: remove impurities or unwanted elements from (a substance), typically as part of an industrial process.

(b) ravage: cause severe and extensive damage to.

(c) abate: (of something unpleasant or severe) become less intense or widespread.

- (d) perplex: make (someone) feel completely baffled.
- (e) ample: enough or more than enough; plentiful.





### S8. Ans.(e)

**Sol.** All the given sentences are correct.

**For option (a),** refer to the lines, "In response to this call, the Union Budget 2023 mentioned "Green Growth" as one of the seven priorities or Saptarishis."

**For option (b)**, refer to the lines, "Finally, the Amrit Dharohar scheme directly mentions our biological wealth and is expected to "encourage optimal use of wetlands, and enhance biodiversity, carbon stock, ecotourism opportunities and income generation for local communities"."

**For option (c)**, refer to the lines, "The Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) is particularly significant because of the extraordinary importance of mangroves and coastal ecosystems in mitigating climate change."

**For option (d)**, refer to the lines, "Finally, each of these efforts must be inclusive of local and nomadic communities where these initiatives will be implemented. Traditional knowledge of these communities should be integrated into the implementation plans."

### S9. Ans.(c)

### Sol. 'Articulated' is the most suitable word for the given blank.

- (a) **decree**: an official order that has the force of law.
- (b) conferred: grant (a title, degree, benefit, or right).
- (c) articulated: pronounce (something) clearly and distinctly.
- (d) prevailed: prove more powerful or superior.
- (e) adjourned: break off (a meeting, legal case, or game) with the intention of resuming it later.

### S10. Ans.(d)

### Sol. 'Amalgamate' is a synonym of 'integrated'.

- (a) **convulse**: throw (a country) into violent social or political upheaval.
- (b) **vitiate**: spoil or impair the quality or efficiency of.
- (c) **resonate**: produce or be filled with a deep, full, reverberating sound
- (d) **amalgamate**: combine or unite to form one organization or structure.
- (e) **muffle**: wrap or cover for warmth.

### S11. Ans.(c)

**Sol.** Among the given options, option (c) is correct with reference to the passage given.

(a) An account in domestic banks to collect funds in order to sell the bank's own shares.

This option describes an account that is used by domestic banks to collect funds for the purpose of selling their own shares. However, this definition does not align with the description provided in the passage, which states that a vostro account is held by a domestic bank on behalf of a foreign bank, specifically to provide international services to its clients. Therefore, option (a) is not the correct answer.

(b) An account in correspondent bank that holds state government funds.

This option suggests that a vostro account is an account held by a correspondent bank that holds state government funds. However, the passage does not mention anything about state government funds or indicate that vostro accounts are specifically used for this purpose. Thus, option (b) is not the correct answer.

(c) An account held by a domestic bank on behalf of a foreign bank to provide international services to its clients.




According to the passage, a vostro account is indeed an account held by a domestic bank on behalf of a foreign bank. It is used to provide international banking services to the foreign bank's clients. We can get that from the first few statements of the passage, "*A vostro account is an account that domestic banks hold for foreign banks in the former's domestic currency, in this case, the rupee. Domestic banks use it to provide international banking services to their clients who have global banking needs.*" This option accurately reflects the description provided in the passage, making it the correct answer.

(d) An account that allows saving money in multiple countries, which have higher interest rates but with limited freedom.

This option describes an account that allows individuals to save money in multiple countries, taking advantage of higher interest rates but with limited freedom. However, this definition does not align with the concept of a vostro account as explained in the passage. Vostro accounts are specifically related to correspondent banking and facilitating international transactions, rather than personal savings accounts. Therefore, option (d) is not the correct answer.

(e) An account that provides domestic currency to the foreign shareholders of a company.

This option suggests that a vostro account is an account that provides domestic currency to foreign shareholders of a company. However, this definition does not accurately reflect the description of a vostro account provided in the passage. The passage states that vostro accounts are used by domestic banks to provide international banking services to their clients who have global banking needs, rather than specifically providing domestic currency to foreign shareholders. Hence, option (e) is not the correct answer.

In conclusion, the correct answer is option (c): An account held by a domestic bank on behalf of a foreign bank to provide international services to its clients.

# S12. Ans.(c)

#### Sol.

(a) They are fixed by the government of the partner trading country.

This option suggests that exchange rates in the framework mentioned in the passage are fixed by the government of the partner trading country. However, the passage states that the exchange rate between the currencies of the trading partner countries is market-determined, indicating that it is not fixed by the government. Therefore, option (a) is not the correct answer.

(b) They are determined by authorized domestic dealer banks.

This option proposes that exchange rates in the framework are determined by authorized domestic dealer banks. However, the passage does not mention that authorized domestic dealer banks have the authority to determine exchange rates. It states that the exchange rate is market-determined, which implies that it is influenced by the forces of supply and demand in the international market. Hence, option (b) is not the correct answer.

(c) They are determined by the international market.

According to the passage, the correct answer is (c) They are determined by the international market. The passage explicitly states in second paragraph, "*The exchange rate between the currencies of the trading partner countries would be market-determined*." This means that the exchange rates are determined by the interactions between various market participants, such as banks, financial institutions, and traders, in the global foreign exchange market.

(d) They are fixed against major reserve currencies.

This option suggests that exchange rates in the framework are fixed against major reserve currencies. However, the passage does not mention anything about exchange rates being fixed against major reserve currencies. Instead, it emphasizes that the exchange rate is market-determined. Thus, option (d) is not the correct answer.





(e) They are determined by the Foreign Exchange Management Act.

This option proposes that exchange rates in the framework are determined by the Foreign Exchange Management Act (FEMA). However, the passage does not state that the FEMA determines exchange rates. It only mentions that all reporting of cross-border transactions should be done in accordance with the guidelines under FEMA. Therefore, option (e) is not the correct answer.

In conclusion, the correct answer is (c) They are determined by the international market, as explicitly stated in the passage.

# S13. Ans.(d)

#### Sol.

(a) The SRVA account enables domestic banks to physically operate abroad.

This option is not correct as the passage does not mention anything about the SRVA account enabling physical operations abroad.

(b) The SRVA account facilitates wire transfers between international clients.

This option is not correct as the passage does not specifically mention the SRVA account facilitating wire transfers between international clients.

(c) The SRVA account converts funds based on the mutually held regulations between the both countries This option is not correct as the passage does not mention the SRVA account converting funds based on regulations of both countries. It focuses on the invoicing, settlement, and use of the SRVA account for international banking services.

(d) The SRVA account complements existing systems using freely convertible currencies.

This option is correct as the passage specifically mentions that the SRVA account is an additional arrangement that complements the existing systems using freely convertible currencies. For better understanding refer to the first paragraph, "The SRVA is an additional arrangement to the existing system that uses freely convertible currencies and works as a complimentary system." It provides an alternative framework for trading partner countries' currencies.

In conclusion, the correct answer is (d) The SRVA account complements existing systems using freely convertible currencies.

# S14. Ans.(e)

**Sol.** Among the given options, both (b) and (c) are correct with reference to the context of the given question. While statement (a) is incorrect based on the information provided in the given passage. Hence, option (e) is the right answer choice.

To validate the answer, refer to the fifth line of the first paragraph, "It helps domestic banks gain wider access to foreign financial markets and serve international clients without having to be physically present abroad."

# S15. Ans.(c)

**Sol.** Among the given options, 'prohibited' is the most appropriate antonym of the highlighted word. Hence, option (c) is the right answer choice. The word 'permitted' means to allow something.

L

- (a) Prescribed- a medical treatment suggestion to someone
- (b) Strolled- to walk somewhere in a relaxed manner
- (c) Prohibited- to officially refuse something.
- (d) Ruined- to destroy or spoil something
- (e) Rambled- to walk for pleasure

37		Adda247	UPSC	<b>YouTube</b>
	1			

Т





# S16. Ans.(a)

**Sol.** Among the given options, 'operate' is the most appropriate synonym for the highlighted word. Hence, option (a) is the right answer choice. The word 'conduct' means to allow something.

- (a) Operate- to work or cause work in action
- (b) Withhold- to refuse to give something
- (c) Relinquish- to give up something
- (d) Possess- to have something or to own a quality
- (e) Yield- to supply or produce something

# S17. Ans.(e)

**Sol.** (a) Domestic banks bear the responsibility of ensuring the funds meet the existing payment obligations.

This statement is correct according to the passage. It mentions that it is the responsibility of the domestic bank to ensure that the available funds are used to meet existing payment obligations. When we refer to the first paragraph we can see that Vostro account is in domestic banks for its client of global needs. Also after going through the mechanism of Vostro account and subsequently SRVA account in second paragraph we can conclude that it is the domestic bank that primarily responsible for ensuring funds.

(b) A domestic bank is obligated to hold a vostro bank for foreign exchanges.

This statement is incorrect. The correct term is "vostro account," not "vostro bank." The passage states that domestic banks hold vostro accounts for foreign banks, not vice versa.

(c) Domestic importers make payments into the SRVA account of the equivalent bank against the invoices for the supply of goods.

This statement is correct. The passage mentions that domestic importers are required to make payments (in INR) into the SRVA account of the correspondent bank for the supply of goods or services from the overseas seller/supplier. For better reference refer to the second paragraph, "Domestic importers are required to make payment (in INR) into the SRVA account of the correspondent bank against the invoices for the supply of goods or services from the overseas seller/supplier."

(d) Only (b) and (c).

Though option (c) is correct, option (b) incorrectly refers to a "vostro bank" instead of a "vostro account," (e) Both (a) and (c).

This statement is incorrect. Option (a) is correct as domestic banks bear the responsibility of ensuring the funds meet the existing payment obligations. Also option (c) is correct.

In conclusion, the correct answer is (e) Only (a) and (c) because option (a) and option (c) both have correct statements.

# S18. Ans.(d)

**Sol.** Among the given options, 'Assigned' is the most appropriate synonym for the highlighted word. Hence, option (d) is the right answer choice. The word 'designated' means to officially give someone a job

- (a) Wield- to hold a weapon or a tool and pretend to use it
- (b) Distinct- a noticeable difference
- (c) Incognito- to hide by changing appearance or name
- (d) Assigned- to give someone a particular job
- (e) Harness- equipment to hold something or someone in place

Т





# S19. Ans.(b)

**Sol.** Among the given options, 'Inaugurate' is the most appropriate antonym for the highlighted word. Hence, option (b) is the right answer choice. The word 'conclude' means to end a speech or a writing

- (a) Terminate- to end or stop something or someone
- (b) Inaugurate- to make a new beginning of something
- (c) Persist- to continue doing a job or a piece of work
- (d) Suspend- to stop something or someone from being active
- (e) Lapse- to pass time between two things or activities

## S20. Ans.(e)

**Sol.** The correct word for the given blank is 'executed'.

premised- a statement based on an idea or a theory

indestructible- impossible to destroy or break

adjacent- very near or next to

executed- to put a plan or action in effect

#### S21. Ans.(b)

**Sol. The word "reluctant" means unwilling or hesitant to do something.** In both sentences, it fits perfectly to convey the idea that the residents or people are hesitant or unwilling to get vaccinated or invest in risky funds, respectively.

- (a) **quandary**: a state of perplexity or uncertainty over what to do in a difficult situation.
- (b) **reluctant**: unwilling and hesitant; disinclined.
- (c) **invasive**: tending to spread very quickly and undesirably or harmfully.
- (d) **expunge**: obliterate or remove completely (something unwanted or unpleasant).
- (e) **relent**: abandon or mitigate a severe or harsh attitude, especially by finally yielding to a request.

#### S22. Ans.(e)

Sol. The word "precise" means accurate, exact, or having a high degree of accuracy. In both sentences, it fits well to describe the desired quality of the technology and the blades. The technology is more accurate or precise compared to the earlier one, and the blades are designed to provide sharp and precise cuts.

(a) **lament**: a passionate expression of grief or sorrow.

- (b) **pledged**: commit (a person or organization) by a solemn promise
- (c) **negligible**: so small or unimportant as to be not worth considering; insignificant.
- (d) **inflict**: cause (something unpleasant or painful) to be suffered by someone or something.
- (e) **precise**: marked by exactness and accuracy of expression or detail.

#### S23. Ans.(a)

**Sol. The word "alleviate" means to reduce, ease, or make something less severe**. In both sentences, it fits appropriately to convey the idea of reducing or mitigating the issues mentioned. Flourished mushroom farming can help farmers reduce or alleviate poverty, while authorities are hoping to alleviate or reduce the urban problems faced by the capital.

- (a) **alleviate**: make (suffering, deficiency, or a problem) less severe.
- (b) **aggravate**: make (a problem, injury, or offence) worse or more serious.
- (c) **amplify**: increase the volume of (sound), especially using an amplifier.
- (d) **avalanche**: a mass of snow, ice, and rocks falling rapidly down a mountainside.
- (e) **confront**: come face to face with (someone) with hostile or argumentative intent.





#### S24. Ans.(c)

**Sol.** The word "retreat" means to withdraw, back off, or move away from a dangerous or unfavourable situation. In both sentences, it fits appropriately to convey the idea of troops withdrawing or moving away from the enemy's sudden attack and the person planning to withdraw or step back from the project after receiving a new job opportunity.

- (a) **merge**: combine or cause to combine to form a single entity.
- (b) **annex**: add as an extra or subordinate part, especially to a document.
- (c) **retreat**: move back or withdraw.
- (d) **juggle**: cope with by adroitly balancing (several activities).
- (e) **append**: add (something) to the end of a written document.

#### S25. Ans.(b)

**Sol. The word "corroborated" means to confirm, support, or provide evidence for the truth or validity of something**. In both sentences, it fits well to describe the process of confirming or supporting a theory or the innocence of the prisoner with evidence or proof.

- (a) **propelled**: drive or push something forwards.
- (b) **corroborated**: confirm or give support to (a statement, theory, or finding).
- (c) **evoked**: bring or recall (a feeling, memory, or image) to the conscious mind.
- (d) **subsided**: become less intense, violent, or severe.
- (e) **muffled**: wrap or cover for warmth.

#### S26. Ans.(b)

**Sol.** The error is in part (B). The expression to 'looking forward to' is always followed by a gerund (a verb ending in -ing) so 'receive' should be replaced with 'receiving'. Therefore, it should be "to receiving back" instead of "to receive back."

#### S27. Ans.(a)

**Sol.** The error is in part (A). The given sentence is in simple present tense so 'is waking up' should be replaced with 'wakes up'. "He wakes up" indicates a habitual or regular action in the present. The rest of the sentence remains unchanged.

#### S28. Ans.(e)

**Sol.** The given sentence is error-free. The sentence is grammatically correct and does not contain any errors. It conveys the intended meaning, and each part of the sentence is properly structured. The use of past participle "adopted" in part (B) is appropriate, and the phrase "the traditional Western manner" is correctly formed to describe how weddings are conducted in some cultures.

#### S29. Ans.(b)

**Sol.** The error is in part (B). The subject of the sentence is "The judicious construction," which is singular. Therefore, the verb should agree with the singular subject. The correct verb form is "offers" instead of "offer."

#### S30. Ans.(e)

**Sol.** The given sentence is error-free. The verb tense "was" in part (B) is appropriate because the advice given by the minister is in the past. The sentence conveys the intended meaning and is properly structured. Thus, the correct answer is (e) No error.





#### S31. Ans.(d)

**Sol.** By going through the passage, we can conclude that the passage is talking about cyber-attacks. The first sentence of the passage is mentioning that ransomware is most predominant of malicious cyberattacks. Therefore, the correct word will be '**predominant**'.

(a) optimal: best or most favourable; optimum.

- (b) warhead: the explosive head of a missile, torpedo, or similar weapon.
- (c) designated: appoint (someone) to a specified office or post.
- (d) predominant: present as the strongest or main element.
- (e) manoeuvred: move skilfully or carefully.

#### S32. Ans.(b)

**Sol.** The second sentence of the passage is mentioning that offenders demand hefty payments for the release of withheld data. Therefore, the correct word for the blank is '**perpetrators'**.

(a) sinless: free from sin.

(b) perpetrators: a person who carries out a harmful, illegal, or immoral act.

(c) companion: a person, usually a woman, employed to live with and assist another.

(d) administer: manage and be responsible for the running of (a business, organization, etc.).

(e) convicted: declare (someone) to be guilty of a criminal offence by the verdict of a jury or the decision of a judge in a court of law.

#### S33. Ans.(a)

**Sol.** The concerned sentence of the passage is mentioning that there are other malwares that could infect all kinds of computer systems. Therefore, the correct word for the blank is '**infect**'.

(a) infect: affect with a virus.

(b) sluggish: slow-moving or inactive.

(c) blast: a destructive wave of highly compressed air spreading outwards from an explosion.

(d) recommend: put forward (someone or something) with approval as being suitable for a particular purpose or role.

(e) convey: To communicate or make known; to transport or carry something from one place to another.

#### S34. Ans.(e)

**Sol.** The concerned sentence of the passage is mentioning that the functioning of all infrastructures such as transportation, power and banking systems has been digitalized and is vulnerable to cyberattacks. Therefore, the correct word for the blank is '**vulnerable**'.

(a) preserving: maintain (something) in its original or existing state.

- (b) defending: resisting an attack made on someone or something; protecting from harm or danger.
- (c) vigilant: keeping careful watch for possible danger or difficulties.
- (d) endorsing: declare one's public approval or support of.
- (e) vulnerable: exposed to the possibility of being attacked or harmed, either physically or emotionally.

# S35. Ans.(e)

**Sol.** The concerned sentence of the passage is mentioning that we need a comprehensive security policy against cyberattacks. Therefore, the correct word for the blank is **'comprehensive'**.

(a) biased: unfairly prejudiced for or against someone or something.

- (b) forbidden: not allowed; banned.
- (c) delicate: easily broken or damaged; fragile.
- (d) profuse: (especially of something offered or discharged) very plentiful; abundant.
- (e) comprehensive: including or dealing with all or nearly all elements or aspects of something.





#### S36. Ans.(b)

**Sol.** The correct interchange is (A)-(C). After interchange the sentence will be, "Some women have **adopted** clean energy-based **technologies** to **catalyze** their **businesses**"

## S37. Ans.(d)

**Sol.** The correct interchanges are (A)-(C) and (B)-(D). After interchanges the sentence will be, "The **efficacy** of an **organization** is **dependent** on the **acumen** of its employees."

#### S38. Ans.(a)

**Sol.** The correct interchange is (B)-(D). After interchange the sentence will be, "According to the **evidence** given by him, he was not **present** at the spot where the **alleged** incident **occurred**."

#### S39. Ans.(c)

**Sol.** The correct interchange is (B)-(C). After interchange the sentence will be, "It is **important** to **remember** that well-designed and **implemented** interventions can make a **difference**."

#### S40. Ans.(a)

**Sol.** The correct interchanges are (A)-(D) and (B)-(C). After interchange the sentence will be, "What **matters** to the **common** man **most** is his bread-and-butter **issue**."

#### S41. Ans.(d)

**Sol.** 'Liberty' means 'the state of being free within society from oppressive restrictions imposed by authority on one's way of life, behaviour, or political views' and its usage is correct in sentences (A) and (B).

#### S42. Ans.(b)

**Sol.** 'Futile' means 'incapable of producing any useful result; pointless' and its usage is correct in statements (B) and (C).

#### S43. Ans.(a)

**Sol.** 'Impediment' means 'something that makes it difficult for a person or thing to move or progress' and its usage is correct only in statement (A).

#### S44. Ans.(c)

**Sol.** 'Vandalize' means 'to intentionally damage property belonging to other people' and its usage is correct only in statement (C).

#### S45. Ans.(d)

**Sol.** To disempower means to make (a person or group) less powerful or confident. The usage of the word only makes sense in the context of the second and the third statements. Thus, option (d) is the correct answer.

#### S46. Ans.(b)

**Sol.** The highlighted phrase has an error. We use base form of verb after 'do/does/did'. We don't use 'that....or' and correct structure is 'whether....or'. Whether is used to express a doubt or choice between two possibilities. 'Either.....or' is used to indicate a choice between two options that have been mentioned.





#### S47. Ans.(c)

**Sol.** The highlighted phrase is incorrect. In direct narration, if we have reporting verb in the past tense and reported speech in the simple past tense then for reported speech in indirect narration, we use past perfect tense. Therefore, the correct replacement will be 'that he had auctioned'.

#### S48. Ans.(d)

**Sol.** The highlighted phrase is incorrect. 'Look for' means 'attempt to find someone or something'. 'Look after' is correct here which means 'take care of someone or something.' The subject is singular so verb should also be in singular form.

#### S49. Ans.(c)

**Sol.** The highlighted phrase is incorrect. 'Than' in the sentence shows that the sentence should be in comparative degree hence 'best' should be replaced with 'better'. Therefore, the correct replacement is 'the better way to get'.

#### S50. Ans.(e)

**Sol.** The highlighted phrase is correct and requires no replacement.

#### S51. Ans.(d)

43

# Sol. Final arrangement: Box Colour P Red S Blue Q Pink T Red R Pink U Blue

**Clues:** At most two boxes are kept above box Q. Red colour box is kept above box Q. **Inference:** From the above conditions we have three possible cases:

Cas	se 1	Ca	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
	Red				Red
Q			Red		
		Q		Q	

**Clues:** Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S.

Inference: We have the following arrangement from the above conditions.





Cas	se 1	Cas	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
S	Red				Red
Q	Pink	S	Red	S	
	Red	Q	Pink	Q	Pink
R			Red		Red
		R		R	

**Clues:** Blue colour box is kept two boxes below box T. Box P is kept above box T. **Inference:** Case 1 gets eliminated here.

Case 1		Case 2		Case 3	
Box	Colour	Box	Colour	Box	Colour
<del>8</del>	Red	Р		Р	Red
Ą	Pink	S	Red	S	
Ŧ	Red	Q	Pink	Q	Pink
R		Т	Red	Т	Red
	Blue	R		R	
			Blue		Blue

**Clue:** Only three boxes are kept between box U and blue colour box.

**Inference:** Case 2 gets eliminated here. And box R is of pink colour as it is given only two boxes are of the same colour.

Case 2		Case 3		
Box	Colour	Box	Colour	
<del>P</del>		Р	Red	
8	Red	S	Blue	
Ą	Pink	Q	Pink	
Ŧ	Red	Т	Red	
R		R	Pink	
Ų	Blue	U	Blue	

**Inference:** Thus, the final arrangement is:

Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

Box P is kept at the topmost position in the stack.

#### S52. Ans.(e) Sol. Final arrangement:

Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

Ι





**Clues:** At most two boxes are kept above box Q. Red colour box is kept above box Q. **Inference:** From the above conditions we have three possible cases:

Case 1		Case 2		Case 3	
Box	Colour	Box	Colour	Box	Colour
	Red				Red
Q			Red		
		Q		Q	

**Clues:** Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S.

**Inference:** We have the following arrangement from the above conditions.

Ca	se 1	Ca	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
S	Red				Red
Q	Pink	S	Red	S	
	Red	Q	Pink	Q	Pink
R			Red		Red
		R		R	

**Clues:** Blue colour box is kept two boxes below box T. Box P is kept above box T.

**Inference:** Case 1 gets eliminated here.

Ga	<del>se 1</del>	Cas	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
Ş	Red	Р		Р	Red
ę	Pink	S	Red	S	
Ŧ	Red	Q	Pink	Q	Pink
R		Т	Red	Т	Red
	Blue	R		R	
			Blue		Blue

**Clue:** Only three boxes are kept between box U and blue colour box.

**Inference:** Case 2 gets eliminated here. And box R is of pink colour as it is given only two boxes are of the same colour.

Case 2		Case 3		
Box	Colour	Box	Colour	
P		Р	Red	
8	Red	S	Blue	
ę	Pink	Q	Pink	
Ŧ	Red	Т	Red	
R		R	Pink	
Ĥ	Blue	U	Blue	

**Inference:** Thus, the final arrangement is:





Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

All I, II and III statements are true.

#### S53. Ans.(c) Sol. Final arrangement:

Box	Colour	
Р	Red	
S	Blue	
Q	Pink	
Т	Red	
R	Pink	
U	Blue	

**Clues:** At most two boxes are kept above box Q. Red colour box is kept above box Q. **Inference:** From the above conditions we have three possible cases:

Ca	Case 1		Case 2		se 3
Box	Colour	Box	Colour	Box	Colour
	Red				Red
Q			Red		
		Q		Q	

**Clues:** Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S.

<b>Inference:</b> We have the following arrangement from the above conditions	5.
---	----

Cas	Case 1		se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
S	Red				Red
Q	Pink	S	Red	S	
	Red	Q	Pink	Q	Pink
R			Red		Red
		R		R	

**Clues:** Blue colour box is kept two boxes below box T. Box P is kept above box T. **Inference:** Case 1 gets eliminated here.

Case 1		Case 2		Case 3	
Box	<del>Colour</del>	Box	Colour	Box	Colour
<del>2</del>	Red	Р		Р	Red
ę	Pink	S	Red	S	
Ŧ	Red	Q	Pink	Q	Pink
R		Т	Red	Т	Red
	Blue	R		R	
			Blue		Blue

L

Adda247 UPSC Telegram





**Clue:** Only three boxes are kept between box U and blue colour box.

**Inference:** Case 2 gets eliminated here. And box R is of pink colour as it is given only two boxes are of the same colour.

G	<del>ise 2</del>	Ca	se 3
Box	Colour	Box	Colour
P		Р	Red
8	Red	S	Blue
ę	Pink	Q	Pink
Ŧ	Red	Т	Red
R		R	Pink
Ĥ	Blue	U	Blue

Inference: Thus, the final arrangement is:

Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

"Box U- Blue" is the correct combination.

#### S54. Ans.(d)

#### Sol. Final arrangement:

Box	Colour		
P Red			
S	Blue		
Q	Pink		
Т	Red		
R	Pink		
U	Blue		

**Clues:** At most two boxes are kept above box Q. Red colour box is kept above box Q.

**Inference:** From the above conditions we have three possible cases:

Case 1		Case 2		Case 3	
Box	Colour	Box	Colour	Box	Colour
	Red				Red
Q			Red		
		Q		Q	

**Clues:** Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S.

Inference: We have the following arrangement from the above conditions.





Case 1		Case 2		Case 3	
Box	Colour	Box	Colour	Box	Colour
S	Red				Red
Q	Pink	S	Red	S	
	Red	Q	Pink	Q	Pink
R			Red		Red
		R		R	

**Clues:** Blue colour box is kept two boxes below box T. Box P is kept above box T. **Inference:** Case 1 gets eliminated here.

Case 1		Case 2		Case 3	
Box	<del>Colour</del>	Box	Colour	Box	Colour
<del>S</del>	Red	Р		Р	Red
ę	Pink	S	Red	S	
Ŧ	Red	Q	Pink	Q	Pink
R		Т	Red	Т	Red
	Blue	R		R	
			Blue		Blue

**Clue:** Only three boxes are kept between box U and blue colour box.

**Inference:** Case 2 gets eliminated here. And box R is of pink colour as it is given only two boxes are of the same colour.

Ca	<del>ise 2</del>	Ca	se 3
Box	<del>Colour</del>	Box	Colour
<del>P</del>		Р	Red
8	Red	S	Blue
ę	Pink	Q	Pink
Ŧ	Red	Т	Red
R		R	Pink
Ц	Blue	U	Blue

**Inference:** Thus, the final arrangement is:

Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

Either one or three boxes are kept between box P and the pink colour box.

#### S55. Ans.(a) Sol. Final arrangement:

Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

L





**Clues:** At most two boxes are kept above box Q. Red colour box is kept above box Q. **Inference:** From the above conditions we have three possible cases:

Ca	se 1	Ca	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
	Red				Red
Q			Red		
		Q		Q	

**Clues:** Only one box is kept between the red colour box and box S which is kept above box Q. Box Q is of pink colour. Only two boxes are kept between box R and box S.

**Inference:** We have the following arrangement from the above conditions.

Cas	se 1	Cas	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
S	Red				Red
Q	Pink	S	Red	S	
	Red	Q	Pink	Q	Pink
R			Red		Red
		R		R	

**Clues:** Blue colour box is kept two boxes below box T. Box P is kept above box T.

**Inference:** Case 1 gets eliminated here.

Ga	<del>se 1</del>	Ca	se 2	Cas	se 3
Box	Colour	Box	Colour	Box	Colour
<del>3</del>	Red	Р		Р	Red
ę	Pink	S	Red	S	
Ŧ	Red	Q	Pink	Q	Pink
R		Т	Red	Т	Red
	Blue	R		R	
			Blue		Blue

**Clue:** Only three boxes are kept between box U and blue colour box.

**Inference:** Case 2 gets eliminated here. And box R is of pink colour as it is given only two boxes are of the same colour.

Case 2		Case 3		
Box	<del>Colour</del>	Box	Colour	
P		Р	Red	
8	Red	S	Blue	
ę	Pink	Q	Pink	
Ŧ	Red	Т	Red	
R		R	Pink	
Ĥ	Blue	U	Blue	

**Inference:** Thus, the final arrangement is:





Box	Colour
Р	Red
S	Blue
Q	Pink
Т	Red
R	Pink
U	Blue

Box R has pink colour.

#### S56. Ans.(b)

**Sol. I.** Doesn't follow – Because there is no direct relation between Neons and Colours so any definite relation between them will not follow.

**II.** Follow – Because any direct relation between Crayons and Paint is not given so their relation (either positive or negative) in the possibility will follow.



#### S57. Ans.(e)

**Sol. I.** Follow - Because Legs are only related to the Shoulder, its relation with any other elements is not possible.



#### S58. Ans.(a)

**Sol. I.** Follow- Because all Clouds are part of Lotion and no Lotion is Motion, so no Cloud is Motion as well. **II.** Not follow – Because all May are Lotion and no Lotion is Motion, some May being Motions is not possible even in possibility.







# S59. Ans.(d)

**Sol. I.** Not Follow – Because it is given that only a few Brush is Knife.

**II**. Not Follow – Because there is no direct relation between knife and Book, any definite relation either negative or positive will not follow.



#### S60. Ans.(c)

**Sol. I.** Not follow – Because there is no direct relation between PL and ZQ, any definite relation will not follow.

**II.** Not follow – Because there is no direct relation between PL and ZQ, any definite relation will not follow. But they are following the "either-or" conditions.



**Clues:** Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R.

Inference: From the above conditions we have two possible cases:



**Clues:** S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P.





Inference: Case 2 gets eliminated here.





**Clues:** The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.

**Inference:** Thus, the final arrangement is:



18 persons sit in the row.

S63. Ans.(a) Sol. Final arrangement:



**Clues:** Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R.

**Inference**: From the above conditions we have two possible cases:



**Clues:** S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P.

**Inference:** Case 2 gets eliminated here.





**Clues:** The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.

**Inference:** Thus, the final arrangement is:



S sits fifth to the right of O.







**Clues:** Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R.

Ν

Inference: From the above conditions we have two possible cases:



**Clues:** S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P.

Inference: Case 2 gets eliminated here.





R

**Clues:** The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.

Inference: Thus, the final arrangement is:



13 persons sit between M and V.

# S65. Ans.(c)



**Clues:** Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R.

**Inference**: From the above conditions we have two possible cases:



**Clues:** S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P.

Inference: Case 2 gets eliminated here.





**Clues:** The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.





**Inference:** Thus, the final arrangement is: ΜQ OV P N S R Statement given in option (c) is true.

S66. Ans.(b) Sol. Final arrangement:



Clues: Three persons sit between N and M. M is the only neighbour of Q. As many persons sit between M and N as between N and R.

Inference: From the above conditions we have two possible cases:



**Clues:** S sits second to the left of R. More than one person sits between N and S. P sits exactly between S and V. Three persons sit between R and P.

Inference: Case 2 gets eliminated here.

Case 1



**Clues:** The number of persons sit to the right of M is one less than the number of persons sit to the left of V. O sits second from one of the ends.

Inference: Thus, the final arrangement is:



Number of persons sit to the right of A will be 2 Number of persons sit to the left of S is 6 Difference = 6-2 = 4

#### S67. Ans.(e)

Sol. Individual statements are not sufficient even after combining both statements we cannot get the answer.

#### S68. Ans.(b)

Sol. After combining, both statements we get the answer i.e., U attends music class on Thursday.

Days	Person
Tuesday	X
Wednesday	v
Thursday	U
Friday	A
Saturday	М
Sunday	В
Monday	R

54	Adda247 UPSC YouTube		Adda247 UPSC Telegram		<u>Adda247 App</u>
----	----------------------	--	-----------------------	--	--------------------



R





#### S69. Ans.(e)

**Sol.** Individual statements are not sufficient even after combining both statements we cannot get the answer.

#### S70. Ans.(b)

**Sol.** After combining, both statements we get the answer i.e., X sits opposite to Q.



#### S71. Ans.(e)

**Sol.** Individual statements are not sufficient even after combining both statements we cannot get the answer.

S72. Ans.(b) Sol.













S76. Ans.(d) Sol. Final arrangement:



#### **Clues:**

B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman.

#### **Inference:**

From these clues, we have two possible cases for the gender of A and B.



#### **Clues:**

A man sits 2<sup>nd</sup> to the right of R. Q sits opposite to B and both are of same gender. **Inference:** 

Case 2 will get cancelled here as it is not satisfying the conditions.



#### **Clues:**

C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men.





#### Inference:

So, S will sit opposite to C as C will be the men because it is given that not more than two same gender persons sit adjacent to each other. Also, some of them are men and some of them are women.



#### Clue:

None of the immediate neighbours of D are of opposite gender.

#### Inference:

It means D will sit immediate left of Q and we know P is one of the persons so the final arrangement is: -



S77. Ans.(a) Sol. Final arrangement:







#### **Clues:**

B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman.

#### **Inference:**

From these clues, we have two possible cases for the gender of A and B.



#### **Clues:**

A man sits 2<sup>nd</sup> to the right of R. Q sits opposite to B and both are of same gender.

#### **Inference:**

Case 2 will get cancelled here as it is not satisfying the conditions.



#### **Clues:**

C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men.

#### **Inference:**

So, S will sit opposite to C as C will be the men because it is given that not more than two same gender persons sit adjacent to each other. Also, some of them are men and some of them are women.







## Clue:

None of the immediate neighbours of D are of opposite gender.

## **Inference:**

It means D will sit immediate left of Q and we know P is one of the persons so the final arrangement is: -



B sits immediate left of S.



#### **Clues:**

B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman.

#### **Inference:**

From these clues, we have two possible cases for the gender of A and B.







#### **Clues:**

A man sits 2<sup>nd</sup> to the right of R. Q sits opposite to B and both are of same gender.

#### **Inference:**

Case 2 will get cancelled here as it is not satisfying the conditions.



#### **Clues:**

C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men.

#### **Inference:**

So, S will sit opposite to C as C will be the men because it is given that not more than two same gender persons sit adjacent to each other. Also, some of them are men and some of them are women.



#### Clue:

None of the immediate neighbours of D are of opposite gender.

# **Inference:**

It means D will sit immediate left of Q and we know P is one of the persons so the final arrangement is: -







S79. Ans.(a) Sol. Final arrangement:



#### **Clues:**

B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman.

#### **Inference:**

From these clues, we have two possible cases for the gender of A and B.



#### **Clues:**

A man sits 2<sup>nd</sup> to the right of R. Q sits opposite to B and both are of same gender. **Inference:** 

Case 2 will get cancelled here as it is not satisfying the conditions.



#### **Clues:**

C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men.





#### Inference:

So, S will sit opposite to C as C will be the men because it is given that not more than two same gender persons sit adjacent to each other. Also, some of them are men and some of them are women.



#### Clue:

None of the immediate neighbours of D are of opposite gender.

#### Inference:

It means D will sit immediate left of Q and we know P is one of the persons so the final arrangement is: -



#### **Clues:**

B sits 2<sup>nd</sup> to the right of A and both of them are of different gender. One person sits between B and R who is not a woman.





#### Inference:

From these clues, we have two possible cases for the gender of A and B.



#### **Clues**:

A man sits  $2^{nd}$  to the right of R. Q sits opposite to B and both are of same gender.

#### Inference:

Case 2 will get cancelled here as it is not satisfying the conditions.



#### **Clues**:

C is an immediate neighbour of both Q and A. Immediate neighbours of B are of same gender. S sits opposite to one of the men.

#### Inference:

So, S will sit opposite to C as C will be the men because it is given that not more than two same gender persons sit adjacent to each other. Also, some of them are men and some of them are women.



#### Clue:

None of the immediate neighbours of D are of opposite gender.

#### Inference:

It means D will sit immediate left of Q and we know P is one of the persons so the final arrangement is: -







Except D, all are men.

**S81. Ans.(d) Sol.** I. H > B (False) II. G < A (False)

**S82. Ans.(a) Sol.** I. 72 > 18 (True) II. 100 < 63 (False)

**S83. Ans.(a) Sol.** I. \$ > \* (True) II. % < # (False)

# S84. Ans.(b)

Sol.

Words	Codes
Holiday	Bf
Home	Iu
Is	Ik
Dream	Au
Big	Zk /el
Decision	El/zk
Makes	Cz
Money	Al
Rent/Earn	Mo/Nz

Τ

# S85. Ans.(b)

Sol.

Words	Codes
Holiday	Bf
Home	Iu
Is	Ik
Dream	Au
Big	Zk /el
Decision	El/zk
Makes	Cz
Money	Al
Rent/Earn	Mo/Nz

I





# S86. Ans.(c)

Sol.

Words	Codes
Holiday	Bf
Home	Iu
Is	Ik
Dream	Au
Big	Zk /el
Decision	El/zk
Makes	Cz
Money	Al
Rent/Earn	Mo/Nz

# S87. Ans.(d)

**Sol.** Numbers formed after digits are arranged in descending order within the number: 952 764 953 742 873 921

Third smallest number is 873 so 783 is the answer.

## S88. Ans.(b)

**Sol.** Third digit of second smallest number in the series is 9 third digit of largest number is 1 Multiplication of both digits = 9\*1=9

#### S89. Ans.(a)

**Sol.** Numbers after interchanging first and last digit of the number **952 476** 953 **724** 387 129 There are three such numbers which are divisible by 2.

#### S90. Ans.(c)

#### Sol. Final arrangement:

Designations	Persons
Compliance Officer	А
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	Е

#### **Explanation**:

**Clues:** There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B. **Inference:** From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.





	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			Н
Risk Manager		Н	
Financial Analyst			
Relationship Manager			В
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C.

**Inference:** From the above conditions case 3 is cancelled here as there is no place for C.

	Case 1	L	Ca	ase 2	Case 3
Designations	Person	IS	Pe	rsons	Persons
Compliance Officer					H
Risk Manager				Н	
Financial Analyst	D			D	₽
Relationship Manager	С			С	₽
Branch Manager	Н			В	
Loan Officer	G			G	¢
Bank Teller					
Customer Service Representative	В				

**Clues:** As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.

**Inference:** From the above conditions case 1 is cancelled here as there is no place for F.

	Case 1	Case 2	
Designations	Persons	Persons	
Compliance Officer		A	
Risk Manager		Н	
Financial Analyst	<b>D</b>	D	
Relationship Manager	Ģ	С	
Branch Manager	Ħ	В	
Loan Officer	Ģ	G	
Bank Teller	A	F	
<b>Customer Service Representative</b>	₿		

L

Inference: Only one person remains i.e., E. So, Final arrangement:

Designations	Persons
Compliance Officer	А
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	E

E is designated as Customer Service Representative.

67

Adda247 UPSC YouTube

Adda247 UPSC Telegram

Т





#### S91. Ans.(b)

#### Sol. Final arrangement:

Designations	Persons
Compliance Officer	A
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	Е

#### **Explanation**:

**Clues:** There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B.

**Inference:** From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			Н
Risk Manager		Н	
Financial Analyst			
Relationship Manager			В
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C.

Inference: From the above conditions case 3 is cancelled here as there is no place for C.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			H
Risk Manager		Н	
Financial Analyst	D	D	Ð
Relationship Manager	С	С	₿
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.

Inference: From the above conditions case 1 is cancelled here as there is no place for F.

# Adda 247



Case 1	Case 2
Persons	Persons
	А
	Н
₽	D
e	С
H	В
G	G
A	F
₿	
	Case 1 Persons D G H G A B

Inference: Only one person remains i.e., E. So, Final arrangement:

Designations	Persons
Compliance Officer	A
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	E

There are three designations between A and B.

# S92. Ans.(d)

#### Sol. Final arrangement:

0		_
Designations	Persons	
Compliance Officer	А	
Risk Manager	Н	
Financial An <mark>al</mark> yst	D	
Relationship Manager	С	
Branch Manager	В	
Loan Officer	G	
Bank Teller	F	
Customer Service Representative	Е	

#### **Explanation:**

**Clues:** There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B. **Inference:** From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			Н
Risk Manager		Н	
Financial Analyst			
Relationship Manager			В
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

L





**Clues:** D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C.

**Inference:** From the above conditions case 3 is cancelled here as there is no place for C.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			H
Risk Manager		Н	
Financial Analyst	D	D	Ð
Relationship Manager	С	С	₿
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.

Inference: From the above conditions case 1 is cancelled here as there is no place for F.

	Case 1	Case 2
Designations	Persons	Persons
Compliance Officer		A
Risk Manager		Н
Financial Analyst	₽	D
Relationship Manager	ç	С
Branch Manager	Ħ	В
Loan Officer	Ģ	G
Bank Teller	A	F
Customer Service Representative	₿	

**Inference:** Only one person remains i.e., E. So, Final arrangement:

Designations	Persons
Compliance Officer	Α
Risk Manag <mark>er</mark>	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	E

All the statements are true.

#### S93. Ans.(b) Sol. Final arrangement:

Persons
А
Н
D
С
В
G
F
Е





#### **Explanation:**

**Clues:** There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B.

Inference: From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			Н
Risk Manager		Н	
Financial Analyst			
Relationship Manager			В
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

Clues: D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C.

Inference: From the above conditions case 3 is cancelled here as there is no place for C.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			H
Risk Manager		Н	
Financial Analyst	D	D	Ð
Relationship Manager	С	C	₽
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.

**Inference:** From the above conditions case 1 is cancelled here as there is no place for F.

	Case 1	Case 2
Designations	Persons	Persons
Compliance Officer		A
Risk Manager		Н
Financial Analyst	₽	D
Relationship Manager	e	С
Branch Manager	H	В
Loan Officer	G	G
Bank Teller	A	F
Customer Service Representative	₽	

Т

Inference: Only one person remains i.e., E. So, Final arrangement:

Designations	Persons
Compliance Officer	А
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
<b>Customer Service Representative</b>	Е

G is designated as Loan Officer.

71




# S94. Ans.(d) Sol. Final arrangement:

Designations	Persons
Compliance Officer	A
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	Е

#### **Explanation**:

**Clues:** There are two designations between H and B. There is at most one designation between B and G. H is senior to B. As many persons between H and G as Junior to B. G is not just senior to B.

**Inference:** From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			Н
Risk Manager		Н	
Financial Analyst			
Relationship Manager			В
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** D is three designations senior to G. Number of persons junior to G is one less than number of persons senior to C.

Inference: From the above conditions case 3 is cancelled here as there is no place for C.

	Case 1	Case 2	Case 3
Designations	Persons	Persons	Persons
Compliance Officer			H
Risk Manager		Н	
Financial Analyst	D	D	Ð
Relationship Manager	С	С	₿
Branch Manager	Н	В	
Loan Officer	G	G	G
Bank Teller			
Customer Service Representative	В		

**Clues:** As many persons between H and D as between H and A. There are two designations between C and F. F is junior to B.

Inference: From the above conditions case 1 is cancelled here as there is no place for F.





	Case 1	Case 2
Designations	Persons	Persons
Compliance Officer		А
Risk Manager		Н
Financial Analyst	₽	D
Relationship Manager	£	С
Branch Manager	H	В
Loan Officer	G	G
Bank Teller	A	F
Customer Service Representative	₿	

Inference: Only one person remains i.e., E. So, Final arrangement:

Designations	Persons
Compliance Officer	A
Risk Manager	Н
Financial Analyst	D
Relationship Manager	С
Branch Manager	В
Loan Officer	G
Bank Teller	F
Customer Service Representative	E

No one remain at their same designation.

## S95. Ans.(d)

**Sol.** Logic – Sum of the place value of 1<sup>st</sup> and 2<sup>nd</sup> letter from left end as per the alphabetical order is equal to the place value of 3<sup>rd</sup> digit.

# S96. Ans.(d)

**Sol.** 2nd, 5th, 6th, and 7th letter–O, F, U and L One meaningful word is formed - FOUL 2<sup>nd</sup> letter from right end – U

# S97. Ans.(c)

Sol. Logic: Number- Total number of consonants in the word multiply by 2
Symbol- If the word ends with consonants use @
If the word ends with vowel use \$
Letter- Third succeeding letter of the second letter from the left end of the given word.
Related – 8H@

# S98. Ans.(b)

Sol. Logic: Number- Total number of consonants in the word multiply by 2
Symbol- If the word ends with consonants use @
If the word ends with vowel use \$
Letter- Third succeeding letter of the second letter from the left end of the given word.
Profile- 8U\$

Т

73

Adda247 UPSC YouTube





# S99. Ans.(c)

Sol. Logic: Number- Total number of consonants in the word multiply by 2
Symbol- If the word ends with consonants use @
If the word ends with vowel use \$
Letter- Third succeeding letter of the second letter from the left end of the given word. Source-6R\$

# S100. Ans.(d)

**Sol.** Given element -@9#2\$5%7\*6&8 Element after 2 is subtracted from all digits - @7#0\$3%5\*4&6 After operation - 372063557446 2nd and 7th digits from the left end – 7 and 5 respectively So, the required sum –7+5=12.

# S101. Ans.(b)

#### Sol.

Total wooden chairs sold by A and E together = 440 + 760 = 1200Total plastic chairs sold by B and C together = 320 + 880 = 1200Required percentage =  $\frac{1200-1200}{1200} \times 100 = 0\%$ 

## S102. Ans.(b)

Sol.

Total plastic chairs sold by  $X = \frac{4}{5} \times 900 = 720$ Total wooden chairs sold by  $X = 390 \times 3 - (440 + 420) = 310$ Required sum = 720 + 310 = 1030

# S103. Ans.(c)

**Sol.** Required revenue = 120×680+200×880=81600+176000 = Rs 257600

# S104. Ans.(c)

**Sol.** Required difference = (420+320)-500=240

#### S105. Ans.(e)

Sol. Required ratio =  $\frac{60}{100} \times 900 + \frac{55}{100} \times 700 : (420 + 680)$ = 540 + 385 : 110 = 925 : 1100 = 37:44

S106. Ans.	.(c)									
Sol. Patter	n of the se	eries								
68,	77,		88,		102,		120,		143	
+9		+11		+14		+18		+23		
	+2		+3		+4		+5			
74	A	dda247 U	JPSC You	uTube	1	Adda24'	7 UPSC Te	legram	1	Adda247 App





<b>S107</b> <b>Sol.</b> I	<b>'. Ans.(</b> Pattern	e) of the se	eries							
44,		69,		109,		164,		234,		319
	+25	+15	+40	+15	+55	+15	+70	+15	+85	
S108 Sol. I	<b>8. Ans.(</b> Pattern	a) of the se	eries	100		162		225		245
75,	+20	95,	+27	122,	+41	163,	+62	225,	+90	315
		+7		+14		+21		+28		
S109 Sol. I	<b>). Ans.(</b> Pattern	<b>e)</b> of the se	eries							
4.2,		733.2,		1517.2,		2358.	2,	3258.2,		4219.2
	+729		+784		+841		+900		+961	
S110 Sol. I	<b>). Ans.(</b> Pattern	<b>c)</b> of the se	eries							
45,	÷5	9,	~4	36,	÷2	12,	×2	24,	÷1	24
S111 Sol. ATQ $\frac{p-40}{4}$ $\frac{5p-2}{4}$ 11P 11P P = 3	Ans.( $\frac{0}{400 \times 10^{-1}} + \frac{3P-1}{1}$ $\frac{000+6P-1}{20}$ = 8800 = 1320 1200  Rs	(b) $(\frac{7.5 \times 4}{100} + (\frac{1200}{0} = 44)$ $(\frac{-2400}{0} = 44)$ (1) + 4400 (1) + 4400 (2) + 4400 (3)	P-400) 0 40	$\times \frac{5}{8} \times \frac{10}{10}$	$\frac{\times 4}{00} + (P -$	- 400) ×	$\frac{3}{8} \times \frac{20 \times 4}{100} =$	= 560		
Sol. Let th	ne quan	tity of mi	lk be 13	a and wat	ter be 17	a				
ATQ, 30a - 30a - 3X = X =	(13a + · (13a - - 30α + · 36 12	17a)- (1 78 + X + 180 - 3	13a — 18 17a - 10 X = 144	$30 \times \frac{13}{30} + 02 + 2X) = 0$	X + 17a 144	— 180 ×	$\frac{17}{30} + 2X$	= 144		
S113 Sol. Let le Leng And	B. Ans.( ength o th of th length o peed of	<b>c)</b> f the plat te train = of the brid f the train	form be 'X+120' dge = 'X· ı be 'S' n	'X' meter meter •40' mete 1/sec	r					
7	75	<u>A</u>	dda247	UPSC You	<u>Tube</u>	<u>  A</u>	dda247 UP	SC Telegra	<u>ım</u>	Adda247

75

Adda247 UPSC YouTube





ATQ,  $\frac{X + X + 120}{S} = 11$   $\frac{2X + 120}{11} = S \dots (i)$ And  $\frac{X - 40 + X + 120}{10} = S$   $\frac{2X + 80}{10} = S \dots (ii)$ From (i) & (ii)  $\frac{2X + 120}{11} = \frac{2X + 80}{10}$  20X + 1200 = 22X + 880 320 = 2X 160 = XLength of the train = X+120 =160+120 = 280 meters

## S114. Ans.(c)

#### Sol.

Let present age of P be x years. So, the present age of Q = (44 - x) years ATQ  $\frac{x+3}{44-x-5} = \frac{5}{2}$ x = 27Required difference= $(27\pm10) = (44 - 27)$ 

Required difference=(27+10) - (44 - 27 - 3) = 37 - 14 = 23 years

#### S115. Ans.(a)

Sol. Let smallest even number be x Then the smallest odd number be (x+9)Then the other two even number will be (x+2) and (x+4)And the other two odd number will be (x+11) and (x+13)ATQ  $\{x + (x + 2) + (x + 4) + (x + 9) + (x + 11) + (x + 13)\} = 231$ x = 32So, largest odd number = 45

# S116. Ans.(c)

#### Sol.

Let the time of investment is T years Let the investment in A be Rs. P and the investment in B be Rs. 2P

Т

ATQ,  $\left(X \times \frac{R}{100} \times T\right)$ 

 $\frac{X \times \frac{1}{100} \times T}{Y \times \frac{R+4}{100} \times T} = \frac{1}{3}$ 

76

Adda247 UPSC YouTube





$$\frac{\left(P \times \frac{R}{100} \times T\right)}{2P \times \frac{R+4}{100} \times T} = \frac{1}{3}$$
$$\frac{R}{2R+8} = \frac{1}{3}$$
$$3R = 2R + 8$$
$$R = 8$$

## S117. Ans.(c)

#### Sol.

Let the cost price and the selling price of article A be Rs.5x and Rs.8x respectively. Cost price of article  $B = \frac{125}{100} \times 8x = Rs. 10x$ Selling price of article  $B = 10x \times \frac{70}{100} = Rs.7x$ ATQ,  $8x + 7x = 112.5 \times 2$  x = 15Cost price of article  $B = 15 \times 10 = Rs.150$ 

#### S118. Ans.(a)

#### Sol.

Let distance between point P to point Q be 'D' km ATQ,  $\frac{D - (7 \times 2)}{7 + 4} = 5$ 

```
\frac{(D-14)}{D} = 5
```

# S119. Ans.(e)

# Sol.

```
a + b = 21 \dots (i)
And
a \times b = 108
a = \frac{108}{b}
'a' value put in (i)
\frac{108}{b} + b = 21
108 + b^2 = 21b
b^2 - 21b + 108 = 0
b^2 - 12b - 9b + 108 = 0
b = 12,9
a>b so, a is 12 & b is 9
c = (12 - 9) + 4 = 7
Required product = 7 × 9 = 63
```

Т





## S120. Ans.(a) Sol.

Time taken by R to empty the tank =  $2 \times 20 = 40$ Total work = LCM (10, 20, 40) = 40 units Efficiency of P to fill the tank =  $\frac{40}{10} = 4$  units/hour Efficiency of Q to fill the tank =  $\frac{40}{20} = 2$  units/hour Efficiency of R to empty the tank =  $\frac{40}{40} = 1$  units/hour Work done in 5 hours by P and Q =  $5 \times (6) = 30$  units Required time =  $\frac{30}{1} = 30$  hours

# S121. Ans.(e)

# Sol.

Total solo songs downloaded by A =  $300 \times \frac{2}{5} = 120$ Total duet songs downloaded by A =  $300 \times \frac{3}{5} = 180$ 

Similarly, to the other

Persons	Total songs	Solo songs	Duet songs
	downloaded	downloaded	downloaded
A	300	120	180
В	500	300	200
С	420	300	120
D	180	80	100
Е	360	150	210

Required ratio = 200+210 : 120+300 = 410 : 420 = 41:42

# S122. Ans.(a)

78

# Sol.

Total solo songs downloaded by A =  $300 \times \frac{2}{5} = 120$ 

Total duet songs downloaded by A =  $300 \times \frac{3}{5} = 180$ 

Similarly, to the other

Persons	Total songs	Solo songs	Duet songs
	downloaded	downloaded	downloaded
A	300	120	180
В	500	300	200
С	420	300	120
D	180	80	100
Е	360	150	210

The total duet song downloaded by D and A together = 100+180 = 280Required percentage =  $\frac{500-280}{500} \times 100 = 44\%$ 

L





#### S123. Ans.(e) Sol.

Total solo songs downloaded by A =  $300 \times \frac{2}{5} = 120$ Total duet songs downloaded by A =  $300 \times \frac{3}{5} = 180$ 

Similarly, to the other

Persons	Total songs	Solo songs	Duet songs
	downloaded	downloaded	downloaded
Α	300	120	180
В	500	300	200
С	420	300	120
D	180	80	100
Е	360	150	210

The total songs downloaded by  $F = \frac{5}{4} \times 360 = 450$ 

Total duet songs downloaded by  $F = \frac{13}{25} \times 200 = 104$ Total solo songs downloaded by F = 450 - 104 = 346Required difference = 346 - 300 = 46

# S124. Ans.(a)

#### Sol.

Total solo songs downloaded by A =  $300 \times \frac{2}{5} = 120$ Total duet songs downloaded by A =  $300 \times \frac{3}{5} = 180$ 

Similarly, to the other

Persons	Total songs	Solo songs	Duet songs
	downloaded	downloaded	downloaded
Α	300	120	180
В	500	300	200
С	420	300	120
D	180	80	100
Е	360	150	210

The total classic songs downloaded by  $A = \frac{1}{3} \times 150 = 50$ 

Required average =  $\frac{50+100}{2}$  = 75

# S125. Ans.(b)

#### Sol.

Total solo songs downloaded by A =  $300 \times \frac{2}{5} = 120$ Total duet songs downloaded by A =  $300 \times \frac{3}{5} = 180$ 

Similarly, to the other

Persons	Total songs downloaded	Solo songs downloaded	Duet songs downloaded
Ά	300	120	180
В	500	300	200
С	420	300	120
D	180	80	100
Е	360	150	210

Т





The difference between the total duet songs downloaded by E and total solo songs downloaded by C = 300 - 210 = 90 Required percentage =  $\frac{90}{300} \times 100 = 30\%$ 

#### S126. Ans.(e) Sol.

```
I. 2x^2 - 4x - 13x + 26 = 0

2x (x - 2) - 13(x - 2) = 0

(x - 2) (2x - 13) = 0

x = \frac{13}{2}, 2

II. 2y^2 - 6y + 4 = 0

2y^2 - 2y - 4y + 4 = 0

2y (y - 1) - 4 (y - 1) = 0

(y - 1) (2y - 4) = 0

y = 1, 2

x \ge y
```

```
S127. Ans.(b)
```

```
Sol.

I. 12x^2 - 3x - 4x + 1 = 0

(3x - 1)(4x - 1) = 0

x = \frac{1}{3}, \frac{1}{4}

II. 6y^2 - 2y - 3y + 1 = 0

(2y - 1)(3y - 1) = 0

y = \frac{1}{2}, \frac{1}{3}

y \ge x
```

```
S128. Ans.(d)
```

```
Sol.

I. x^2 + 11x + 24 = 0

\Rightarrow x^2 + 8x + 3x + 24 = 0

\Rightarrow (x + 8) (x + 3) = 0

\Rightarrow x = -8, -3

II. 4y^2 + 13y + 10 = 0

\Rightarrow 4y^2 + 8y + 5y + 10 = 0

\Rightarrow (y + 2) (4y + 5) = 0

\Rightarrow y = -2, -\frac{5}{4}

x < y
```

# S129. Ans.(e)

Sol. I.  $2x^2 - 19x + 17 = 0$   $2x^2 - 2x - 17x + 17 = 0$  x = 8.5, 1II.  $3y^2 - y - 14 = 0$   $3y^2 - 7y + 6y - 14 = 0$   $y = -2, \frac{7}{3}$ So, no relation.

Т

Τ





# S130. Ans.(c) Sol. I. $6x^2 + 17x + 5 = 0$ $6x^2 + 2x + 15x + 5 = 0$ 2x (3x + 1) + 5 (3x + 1) = 0 $x = -\frac{5}{2}, -\frac{1}{3}$ II. $2y^2 + 21y + 49 = 0$ $2y^2 + 14y + 7y + 49 = 0$ 2y (y + 7) + 7(y + 7) = 0 $y = -7, -\frac{7}{2}$ x > y

# S131. Ans.(d)

#### Sol.

For company A:

Number of employees having salary more than Rs. X = 20Let the number of employees having salary equal to Rs. X be a Let the number of employees having salary less than Rs. X be b ATQ,

20 + a = 25 a = 5 5 + b = 20 b = 15

For company B: Number of employees in  $B = \frac{3}{2} \times (20 + 15 + 5) = \frac{3}{2} \times 40 = 60$ 

The number of employees having salary equal to Rs.  $X = 5 \times 2 = 10$ The number of employees having salary more than Rs. X = 30

The number of employees having salary less than Rs. X = 60 – 10 – 30 = 20				
Company	Salary > X	Salary < X	Salary = X	Total employees
Α	20	15	5	40
В	30	20	10	60

Required ratio =  $\frac{15}{20} = 3:4$ 

# S132. Ans.(a)

#### Sol.

For company A:

Number of employees having salary more than Rs. X = 20 Let the number of employees having salary equal to Rs. X be a Let the number of employees having salary less than Rs. X be b ATQ, 20 + a = 25 a = 5 5 + b = 20 b = 15 For company B: Number of employees in B =  $\frac{3}{2} \times (20 + 15 + 5) = \frac{3}{2} \times 40 = 60$ 

81 <u>Adda247 UPSC YouTube</u> <u>Adda247 UPSC Telegram</u> <u>Adda247 App</u>





The number of employees having salary equal to Rs.  $X = 5 \times 2 = 10$ The number of employees having salary more than Rs. X = 30The number of employees having salary less than Rs. X = 60 - 10 - 30 = 20

Company	Salary > X	Salary < X	Salary = X	Total employees
Α	20	15	5	40
В	30	20	10	60

Number of females in company A =  $\frac{3}{5} \times 40 = 24$ 

Number of females having salary more than Rs. X = 10

Number of females having salary equal to Rs.  $X = \frac{1}{2} \times 24 = 3$ 

Number of females having salary less than Rs. X = 24 - 10 - 3 = 11

## S133. Ans.(c)

#### Sol.

For company A:

Number of employees having salary more than Rs. X = 20Let the number of employees having salary equal to Rs. X be a Let the number of employees having salary less than Rs. X be b ATQ, 20 + a = 25a = 5

5 + b = 20

b = 15

For company B: Number of employees in B =  $\frac{3}{2} \times (20 + 15 + 5) = \frac{3}{2} \times 40 = 60$ 

The number of employees having salary equal to Rs.  $X = 5 \times 2 = 10$ 

The number of employees having salary more than Rs. X = 30

The number of employees having salary less than  $R_s$ . X = 60 – 10 – 30 = 20

Company	Salary > X	Salary < X	Salary = X	Total employees
Α	20	15	5	40
В	30	20	10	60
	20120		-	

Required average =  $\frac{20+30}{2}$  = 25

# \$134. Ans.(e)

#### Sol.

For company A:

Number of employees having salary more than Rs. X = 20 Let the number of employees having salary equal to Rs. X be a Let the number of employees having salary less than Rs. X be b

ATQ,

20 + a = 25a = 55 + b = 20b = 45

b = 15

For company B: Number of employees in  $B = \frac{3}{2} \times (20 + 15 + 5) = \frac{3}{2} \times 40 = 60$ The number of employees having salary equal to Rs.  $X = 5 \times 2 = 10$ 

The number of employees having salary more than Rs. X = 30

The number of employees having salary less than Rs. X = 60 - 10 - 30 = 20Salary > X Salary < X Salary = X Total employees Company 20 15 5 40 А в 30 20 10 60

Required percentage =  $\frac{50-35}{35} \times 100 = 42.85\% \approx 43\%$ 

I





## S135. Ans.(d)

Sol.

For company A:

Number of employees having salary more than Rs. X = 20 Let the number of employees having salary equal to Rs. X be a Let the number of employees having salary less than Rs. X be b ATQ, 20 + a = 25

a = 5 5 + b = 20

b = 15

For company B: Number of employees in B =  $\frac{3}{2} \times (20 + 15 + 5) = \frac{3}{2} \times 40 = 60$ The number of employees having salary equal to Rs.  $X = 5 \times 2 = 10$ The number of employees having salary more than Rs. X = 30

The number of employees having salary less than Rs. X = 60 - 10 - 30 = 20

Company	Salary > X	Salary < X	Salary = X	Total employees
Α	20	15	5	40
В	30	20	10	60
	· · · · · · · · · · · · · · · · · · ·	•		

Required percentage =  $\frac{(5+10)}{60} \times 100 = 25\%$ 

## S136. Ans.(e)

#### Sol.

Let the speed of current be x km/hr.

The speed of boat in = 6x km/hr.

# ATQ,

 $\frac{D}{1} = 2T$  .....(i)  $\frac{6x+x}{D-400} = \frac{2T}{2}$ 6*x* D-400 = T .....(ii) 6*x* Dividing (i) and (ii) D  $\frac{6x+x}{D-400} =$ 6*x*  $\frac{D}{7} \times \frac{6}{(D-400)} = \frac{2}{1}$ 6D = 14D - 5600 8D = 5600

D = 700

#### S137. Ans.(a) Sol.

Let R alone takes x days to complete the work alone So, P takes (x - 16) days to complete the work alone ATQ -

 $\frac{1}{(x-16)} + \frac{1}{30} + \frac{1}{x} = \frac{1}{10}$ 1  $=\frac{1}{2}$ 15 x (x-16)

L





 $x^{2}-46x + 240 = 0$   $x^{2}-40x - 6x + 240 = 0$  (x-40) (x - 6) x = 40 & 6here value of x can't be 6 So, Required days =  $40 \times \frac{50}{100} = 20 \ days$ 

#### S138. Ans.(b)

Sol. ATQ,  $P + Q + R + S = 20 \times 4$ P + Q + R + S = 80... (i) And, P + R+ S = 20 × 3 P + R + S = 60... (ii) On solving (i) & (ii), we get Q = 20Now, R =  $20 \times \frac{100}{125} = 16$ And P =  $16 \times \frac{75}{100} = 12$ Put value of P and R in (ii): 12 + 16 + S = 60S = 32 Required difference = 32 - 12 = 20

# S139. Ans.(d)

Sol. ATQ,  $\frac{x \times 12}{8 \times (x + 900)} = \frac{600}{850}$   $17x - 18x = 8 \times 900$ x = Rs.800

# S140. Ans.(d)

# Sol.

Let speed of train P be p km/hr And speed of train Q = (p +22) km/hr ATQ  $\frac{510}{5\frac{40}{60}} = (p + p + 22)$   $\frac{510}{17} \times 3 = 2p + 22$  2p = 68 p = 34Speed of train P = 34 km/hr Speed of train Q = 34 + 22 = 56 km/hr

Т





#### S141. Ans.(c) Sol.

Total vehicles manufactured in all five months  $=\frac{96}{10} \times 100 = 960$ Total vehicles manufactured in January  $=\frac{25}{100} \times 960 = 240$ Total vehicles manufactured in February  $=\frac{30}{100} \times 960 = 288$ Total vehicles manufactured in March  $=\frac{15}{100} \times 960 = 144$ Total vehicles manufactured in May  $=\frac{20}{100} \times 960 = 192$ Required difference = 288 - 144 = 144

#### S142. Ans.(c) Sol.

Total vehicles manufactured in all five months  $=\frac{96}{10} \times 100 = 960$ Total vehicles manufactured in January  $=\frac{25}{100} \times 960 = 240$ Total vehicles manufactured in February  $=\frac{30}{100} \times 960 = 288$ Total vehicles manufactured in March  $=\frac{15}{100} \times 960 = 144$ Total vehicles manufactured in May  $=\frac{20}{100} \times 960 = 192$ Total vehicles manufactured in June  $=\frac{62.5}{100} \times 144 = 90$ Required average  $=\frac{90+240}{2} = \frac{330}{2} = 165$ 

#### S143. Ans.(d) Sol.

Total vehicles manufactured in all five months =  $\frac{96}{10} \times 100 = 960$ Total vehicles manufactured in January =  $\frac{25}{100} \times 960 = 240$ Total vehicles manufactured in February =  $\frac{30}{100} \times 960 = 288$ Total vehicles manufactured in March =  $\frac{15}{100} \times 960 = 144$ Total vehicles manufactured in May =  $\frac{20}{100} \times 960 = 192$ Total four-wheeler vehicles manufactured in January =  $240 \times \frac{40}{100} = 96$ Total three-wheeler vehicles manufactured in January =  $(240 - 96) \times \frac{3}{8} = 54$ Required ratio = 54 : 96 = 9:16

#### S144. Ans.(a) Sol.

Solution:Total vehicles manufactured in all five months =  $\frac{96}{10} \times 100 = 960$ Total vehicles manufactured in January =  $\frac{25}{100} \times 960 = 240$ Total vehicles manufactured in February =  $\frac{30}{100} \times 960 = 288$ Total vehicles manufactured in March =  $\frac{15}{100} \times 960 = 144$ Total vehicles manufactured in May =  $\frac{20}{100} \times 960 = 192$ Required angle =  $\frac{30+20}{2} \times \frac{360}{100} = 90$  degreeAdda247 UPSC YouTubeAdda247 UPSC Telegram





#### S145. Ans.(b) Sol.

Total vehicles manufactured in all five months =  $\frac{96}{10} \times 100 = 960$ Total vehicles manufactured in January =  $\frac{25}{100} \times 960 = 240$ Total vehicles manufactured in February =  $\frac{30}{100} \times 960 = 288$ Total vehicles manufactured in March =  $\frac{15}{100} \times 960 = 144$ Total vehicles manufactured in May =  $\frac{20}{100} \times 960 = 192$ Total vehicles unsold in April =  $\frac{1}{3} \times 96 = 32$ Total vehicles unsold in February =  $\frac{1}{2} \times 288 = 144$ Required percentage =  $\frac{32}{144} \times 100 = 22.22\%$ 

# S146. Ans.(a)

Sol.

Let monthly income of X = Rs. 100x Amount spend on children education & on household =  $100x \times \frac{10+20}{100} = 30x$ Amount spend on shopping =  $(100x - 30x) \times \frac{25}{100} = 17.5x$ Amount spend on entertainment =  $(100x - 30x - 17.5x) \times \frac{1}{7} = 7.5x$ ATQ, 100x-30x-17.5x-7.5x=3600 45x=3600 x=80Monthly income =  $100 \times 80=$ Rs.8000 S147. Ans.(b)

#### Sol.

Let cost price of mixture be Rs. x per kg

80 120

х

120-x x-80

#### ATQ,

 $\frac{(120-x)}{(x-80)} = \frac{1}{3}$ 360 - 3x = x - 80 x = 110 Profit percentage =  $\frac{143 - 110}{110} \times 100$ =  $\frac{33}{110} \times 100 = 30\%$ 86 Adda247 UPSC YouTube

Т

Т





# S148. Ans.(b) Sol. Required probability $=\frac{6c_2+5c_2}{14}$ $11c_{2}$ $=\frac{15+10}{55}$ $=\frac{25}{55}=\frac{5}{11}$

# S149. Ans.(b)

```
Sol.
```

```
\pi r^2 + lb = 2136 (where r- radius of circle, l- length of rectangle & b- breadth of rectangle)
\frac{22}{7} \times 21 \times 21 + l \times 30 = 2136
l = \frac{750}{30} = 25cm
So, circumference of circle = 2\pi r
= 2 \times \frac{22}{7} \times 21
= 132 cm
Perimeter of rectangle = 2 \times (l + b) = 2 (25 + 30)
= 110 cm
Required difference = 132 - 110 = 22 cm
S150. Ans.(b)
Sol.
21M × 15 = 35W × 11
9M=11W
ATQ,
18M \times (Y - 4) = 20W \times Y
18 \times \frac{11}{9} W \times (Y - 4) = 20W \times Y
22Y - 88 = 20Y
2Y = 88
```

Y = 44.