## IDBI Executive 2019 Memory Based

Direction (1-5): Study the following information carefully and answer the questions given below:

Nine boxes A, B, C, D, E, F, G, H, K are placed one above other. there are two boxes between E and B. there is only one box placed between A and E . Box F is placed immediately before box G . there are equal number of boxes placed above and below F. there are two boxes placed between G and K. Box D is placed at one of the places above C. There is no box placed above box $D$. There are no boxes placed between $H$ and K which is placed below G .

Q1. Which box is placed just above box H ?
(a) E
(b) B
(c) G
(d) C
(e) None of the above

Q2. Which box is placed at the bottom?
(a) F
(b) K
(c) A
(d) C
(e) None is true

Q3. Which box is kept at the top?
(a) G
(b) B
(c) D
(d) F
(e) None of the above

Q4. How many boxes are kept above E?
(a) one
(b) two
(c) four
(d) three
(e) None of the above

Q5. Which box is kept exactly at the middle between E and G?
(a) F
(b) E
(c) C
(d) A
(e) None of the above

Direction (6-10): Study the following information carefully and answer the questions given below:
There are eight members of three generation in a family. $D$ is daughter of $F$. $F$ has two children. $D$ is the mother of $G$. A is brother of $B$ and son of $S$. B is brother-in-law of $C$. $B$ is not unmarried. $G$ is brother of $H$ who is the child of $B$.

Q6. How is D related to C?
(a) Mother
(b) Father
(c) Brother in law
(d) Sister
(e) None of the above

Q7. How is G related to B?
(a) Mother
(b) Son
(c) Brother in law
(d) Sister in law
(e) None is true

Q8. How is A related to D?
(a) Mother
(b) Father
(c) Brother in law
(d) Cannot be determined
(e) None of the above

Q9. How is S related to D?
(a) Mother
(b) Father
(c) Brother in law
(d) Cannot be determined
(e) None of the above

Q10. How is G related to $S$ ?
(a) Mother
(b) Grand son
(c) Brother in law
(d) Sister in law
(e) None of the above

Q11. How many such pairs of letters are there in between the word 'STADIUM' as according to the English alphabet?
(a) one
(b) two
(c) three
(d) four
(e) None of the above

Direction (12-16): Study the following information carefully and answer the questions given below: Point $M$ is 25 m to the east of point $G$. Point $H$ is 30 m to the north of point $G$. $R$ is 25 m to the west of point H. J is 50 m to the south of point $R$. $X$ is 60 m to the east of point $J . Y$ is 10 m to the west of point X .

Q12. What is the shortest distance between M and Y ?
(a) 10 m
(b) 20 m
(c) 30 m
(d) 40 m
(e) None of the above

Q13. What is the direction of R with respect to G ?
(a) North
(b) North West
(c) South
(d) South West
(e) None of the above

Q14. What is the direction of G with respect to Y ?
(a) North
(b) North West
(c) South
(d) South West
(e) None of the above

Q15. What is the total distance covered from point J to point H ?
(a) 45 m
(b) 55 m
(c) 65 m
(d) 75 m
(e) None of the above

Q16.what is the direction of point J with respect to H ?
(a) North
(b) North West
(c) South
(d) South West
(e) None of the above

Q17. Can a meaningful word be made from the $1^{\text {st }}, 2^{\text {nd }}, 3 \mathrm{rd}$, and $4^{\text {th }}$ letter of the word 'OPERATIONAL'? if not then mark ' $z$ ' as the answer and if yes then what is the second letter of the word formed? If more than one word is formed then mark ' $y$ ' as the answer.
(a) Y
(b) R
(c) P
(d) z
(e) None of the above

Direction (18-22): Study the following information carefully and answer the questions given below:

There are nine persons A, B, C, D, E, F, G, H and K live on nine different floors of a building where ground floor is numbered as floor1, above it is floor2 and so on till the topmost floor is numbered as floor9. Only one person lives on each of the floor. There are three persons living between E and F . E lives on one of the odd floors below H . C lives on one of the even floors below the floor on which E lives. A Lives immediately below C. G lives on the top floor. There are two persons living between B and E. H lives immediately above K . K lives on the $6^{\text {th }}$ floor. D lives just above the floor on which F lives.

Q18. Who lives on floor number 5?
(a) G
(b) B
(c) E
(d) C
(e) None of the above

Q19. Who lives immediately below $C$ ?
(a) A
(b) B
(c) D
(d) C
(e) None is true

Q20. Who lives on the odd number floor?
(a) B
(b) K
(c) E
(d) C
(e) None of the above

Q21. Who lives just above K?
(a) G
(b) H
(c) D
(d) F
(e) None of the above

Q22. Who lives at the bottom floor?
(a) B
(b) F
(c) K
(d) H
(e) None of the above

Direction (23-27): In each of the questions below are given some statements 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.
(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.

Q23. Statement: Only a few train is bus. No bus is car. Some car is plane.
Conclusions: I. All plane can be car.
II. All bus can be train.

Q24. Statement: Some nail is paint. Only a few paint is cream. No cream is face.
Conclusions: I. Some face is nail.
II. All paint can be face.

Q25. Statement: Only drama is movie. Only a few drama is theatre. Some theatre is scene.
Conclusions: I. Some scene can be drama.
II. Some movie can be theatre.

Q26. Statement: All chain is shoulder. All shoulder is elbow. Some elbow is not arm.
Conclusions: I. Some shoulder is not arm.
II. Some elbow is chain.

Q27. Statement: Only a few garden is flower. Some flower is green. All green is tree.
Conclusions: I. Some tree is not green.
II. All flower can be garden.

Direction (28-31): In each of the questions below are given some statements 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.
(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.

Q28. Statements: $J>Z \geq R<Q=P, R>S<J$
Conclusion I: $\mathrm{Z}<\mathrm{R} \quad$ II: J $>\mathrm{P}$

Q29. Statements: $M \leq B=C>D, A \geq B<K$
Conclusion I: $\mathrm{M}<\mathrm{K} \quad$ II: $\mathrm{D}<\mathrm{A}$

Q30. Statements: $\mathrm{E}>\mathrm{F}=\mathrm{G} \geq \mathrm{S}, \mathrm{T} \leq \mathrm{G} \geq \mathrm{H}$
Conclusion I: $\mathrm{E}<\mathrm{S} \quad$ II: $\mathrm{T}<\mathrm{F}$

Q31. Statements: $P>Q \leq R<S \leq T=U>V=W$
Conclusion I: $\mathrm{R}<\mathrm{P}$
II: $\mathrm{Q}<\mathrm{T}$

Q32. Statements: $\mathrm{J}>\mathrm{K} \leq \mathrm{L}<\mathrm{M} \leq \mathrm{N}=\mathrm{O}>\mathrm{P}=\mathrm{Q}$
Conclusion I: J < L
II: $\mathrm{M}>\mathrm{J}$

Direction (33-37): Study the following information carefully and answer the questions given below:

Six people $P, Q, R, K, L, M$ are sitting in a straight line facing north. $Q$ is sitting at one of the ends in the row. $K$ is sitting second to the left of Q . Three people are sitting between M and Q . Only one people is sitting between P and L who is not the immediate neighbor of M .

Q33. Who is the immediate neighbor of $R$ ?
(a) M
(b) P
(c) K
(d) L
(e) None of the above

Q34. Who among the following is sitting third to the right of P?
(a) K
(b) Q
(c) L
(d) M
(e) None of these

Q35. Who among the following is the immediate neighbor of both $M$ and $K$ ?
(a) R
(b) L
(c) $P$
(d) Q
(e) None of the above

Q36. Who among the following is sitting immediate left of $R$ ?
(a) Q
(b) P
(c) K
(d) No one
(e) None of the above

Q37. Four of the following five pair are same in a way and hence form a group, find the one which does not belong to that group?
(a) R-K
(b) $\mathrm{M}-\mathrm{K}$
(c) K-Q
(d) P-L
(e) None of the above

Direction (38-42): Study the following information carefully and answer the questions given below:
In a certain code:
"Summer season is boring" is coded as "mn hn rd hi"
"Winter season are gone" is coded as " $\mathrm{jk} \mathrm{hn} \mathrm{tr} \mathrm{vb"}$
"People feel boring summer" is coded as "mn rd bx az"
"boring feel are gone" is coded as "rd jk vb az"

Q38. What is the code of "gone" as per the given code language?
(a) jk
(b) tr
(c) vb
(d) Either (a) or (c)
(e) hi

Q39. What is the code of "is" as per the given code language?
(a) hn
(b) tr
(c) hi
(d) bx
(e) None of these

Q40. What is the code of "boring feel" as per the given code language?
(a) rd az
(b) $a z b x$
(c) rd mn
(d) rd hi
(e) None of these

Q41. The code of " hn az " is stand for which of the following words?
(a) winter are
(b) gone feel
(c) season is
(d) season feel
(e) None of these

Q42. What is the code of "people" as per the given code language?
(a) hn
(b) tr
(c) az
(d) Either (b) or (e)
(e) bx

Direction (43-47): Study the following information carefully and answer the questions given below:

There are Seven people P, Q, R, S, T, U and V. They are from three different countries Hongkong, Brazil, Argentina. They like different colors like red, purple, grey, blue, green, black and orange. Minimum two people visit to each country. Q likes red but does not visit brazil. Only two people visit Hongkong. T visits Argentina and likes black color. S visits the same city as T but does not like blue color. P and $U$ visits the same city. P likes grey color. R does not visit Argentina and likes purple color. V does not visit brazil. S likes orange color. The one who likes green visit Argentina.

Q43. Which color is liked by P?
(a) Purple
(b) Blue
(c) Grey
(d) Orange
(e) None of the above

Q44. Which color is liked by the one who goes to Brazil?
(a) Orange
(b) Purple
(c) Black
(d) Grey
(e) None is true

Q45. Which color is liked by the one who goes to Argentina?
(a) Orange
(b) Blue
(c) Grey
(d) Purple
(e) None of the above

Q46. Which color is liked by U?
(a) Grey
(b) Blue
(c) Purple
(d) Green
(e) None of the above

Q47. U goes to which country and like which color?
(a) Brazil- Grey
(b) Hong Kong- Red
(c) Brazil-Blue
(d) Argentina- Green
(e) None of the above

Direction (48-50): Study the following information carefully and answer the questions given below:
Five persons A , B, C, D and E are of different heights and they like different colors i.e. Blue, Yellow, Pink, Red and Green. (No two persons are of similar heights and do not like same color).
B does not like Red or Pink. B is shortest. D is taller than C and A. Only three persons are shorter than C. The one who likes yellow is not the tallest. The one who likes Yellow is taller than the one who likes Red. The one who likes green is just shorter than the one who likes Red. One person have a height in between D and the one who likes Pink.

Q48. Who among the following is just shorter than C ?
(a) A
(b) E
(c) B
(d) Either (a) or (b)
(e) None of the above

Q49. Which color is liked by D?
(a) Pink
(b) Yellow
(c) Blue
(d) Red
(e) None of the above

Q50. Who among the following likes green color?
(a) E
(b) C
(c) D
(d) B
(e) None of the above

Directions (51-60): Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

Over the last three centuries the world economy has evolved from a predominantly agriculture-based system to a digital economic system. The earlier economies were mainly agrarian. In this era, capital did play a role as did technological innovations such as the plough, the steamboat or the train. But land and labour were more critical.
With the service economy, the wealth create by services exceeded the wealth created through manufacturing. Here the ability of the service provider to establish a sound business gave him access to additional capital. This evolved into a global economy where goods and services were traded across international borders with little restriction. In this period, capital started flowing across borders on a large scale for the first time.
The last five years have seen the advent of the digital economy where technology is becoming the driving force. With information being the driver of value and wealth creation, information technology is becoming the key to success in a growing number of industries. In the digital economy, the power of innovation and ideas have gained the upper hand over direct access to capital.
The Indian economy is in a unique position in terms of its economic evolution. While manufacturing and service industries in India cannot freely access capital, the new breed of IT based industries have access to venture capital and private equity. The country's potential in this emerging sector has opened the doors to capital inflows that are still not available to traditional industries.
There are two key trends which will boost the democratization of capital, either directly as funding sources or indirectly.
More effective capital market routes especially for information based and software companies.
This is already happening rapidly. A market that was supposed to be stagnating with no public offering from the manufacturing sector in the first quarter of the fiscal year, may see as many as 20-25 new software issues this year. Numerous Internet and e-commerce companies are tapping funds through the capital market. For the financial intermediaries as well as for the investing public, dot com or 'info' initial public offerings are fast becoming attractive investment alternatives to traditional manufacturing or financial sector offers.
With more effective capital markets, for high potential IT stocks, 'critical mass', which in the industrial economy was primary in ensuring as company's ability to raise capital, will cease to matter. This underlines the manner in which a burgeoning digital economy has led to a redeployment of capital from a concentrated segment to the smaller knowledge entrepreneur.
A greater number of venture capitalists are actively seeking to fund budding knowledge entrepreneurs. Along with the rise in Net entrepreneurs one has seen the emergence of a new breed of venture capitalists who recognize the potential that resides in these ideas. The emergence and strengthening of the virtual economy necessitates sources of funds at the 'ideation' stage where business plans may still be at the infancy stage and potential not clearly identified.
This need is being fulfilled by the incubator funds or the angel investors who hand-hold Internet startups and other Info Tech ventures till the stage at which they can attract bigger investors. Instead of looking at high risk but big ventures, this genre of venture capitalists are looking at investments in companies which have the potential of excellent valuations in the future on the strength of their ideas.

Q51. Which of the following has been rated as most crucial in agro
based economy?
(i) Land
(ii) Labour
(iii) Capital
(a) Only (i) and (ii)
(b) Only (iii)
(c) Only (ii)
(d) Only (i)
(e) None of these

Q52. How did service economy evolve into a global economy?
(a) The wealth gained through service exceeded the gain through manufacture.
(b) The services started flowing across borders.
(c) The labour started producing goods for mass market.
(d) The trade for services and goods crossed the international borders.
(e) None of these

Q53. Which of the following best describes the phrase "critical mass" as used in the passage?
(a) Paradigm shift from fund base to knowledge base
(b) The net worth of a small knowledge entrepreneur
(c) The ability of an organization to raise funds
(d) The sum total capital of industrial economy
(e) None of these

Q54. The public offer of which type of companies are preferred by the investors at present?
(a) Service sector companies
(b) Agro based companies
(c) Information based companies
(d) Companies dealing with financial sector
(e) None of these

Q55. What impact on economy has been envisaged owing to rise in net enterprise?
(a) The venture capitalists have started financing the projects even at the planning stage.
(b) The economic planning will no more be realistic now.
(c) The funding of unplanned projects have increased.
(d) Virtual economy has necessitated the source of funds from abroad.
(e) None of these

Q56. Which trend can boost capital growth in the modern era?
(a) Conversion of land and labour to private equity
(b) Converting manufacturing industries into service sector
(c) Generating resources through international trade
(d) Promoting information based and software companies
(e) None of these

Directions (57-58): Choose the word which is most nearly the SAME in meaning to the word printed in bold as used in the passage.

## Q57. Advent

(a) shining
(b) departure
(c) power
(d) force
(e) arrival

Q58. Traditional
(a) religious
(b) excessive
(c) old
(d) customary
(e) sick

Directions (59-60): Choose the word which is most OPPOSITE in meaning to the word printed in bold as used in the passage.

## Q59. Burgeoning

(a) growing
(b) retarding
(c) dipping
(d) unique
(e) common

Q60. Stagnating
(a) developing
(b) redundant
(c) overworking
(d) fixed
(e) stationery

Directions (61-65): Rearrange the following six sentences (A), (B), (C), (D), (E), and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.
A. The group of Egyptians provided answers to all his questions as they were impressed by the visitor's keen observation and intellectual curiosity.
B. From time to time he glanced at the map in his guide book to make sure that he was following them accurately.
C. All these efforts were directed towards his goal to write a book on the various places he saw and the people he met.
D. On one bright day, a famous traveller and writer from the West was listening to a group of Egyptians who described to him the wonders of their country.
E. Back in his room he industriously set down his facts and his impressions in an elaborate file of notes.
F. Repeatedly he interrupted with pertinent questions about Egyptian antiquities or local customs or the latest crisis in the Middle East.

Q61. Which of the following would be the FIRST sentence after rearrangement?
(a) A
(b) F
(c) C
(d) D
(e) E

Q62. Which of the following would be the FOURTH sentence after rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q63. Which of the following would be the LAST (SIXTH) sentence after rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q64. Which of the following would be the SECOND sentence after rearrangement?
(a) A
(b) B
(c) F
(d) D
(e) E

Q65. Which of the following would be the FIFTH sentence after rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Directions (66-70): Which of the phrase (a), (b), (c) and (d) given below should replace the phrase given in bold in the following sentence to make the sentence grammatically meaningful and correct? If the sentence is correct as it is and no correction is required, mark (e) as the answer.

Q66. The military has highly sophisticated simulators on which soldiers train.
(a) which soldier training on
(b) on which soldier have trains
(c) which the soldier do train
(d) on which the soldiers have been trained
(e) No correction required

Q67. Any policy of social welfare will be likely to face resistance from vested interests.
(a) would be like facing
(b) will be likely facing
(c) is likely to face
(d) is likely to be facing with
(e) No correction required

Q68. The key to a competitive economy is its investment regime.
(a) in its invested regime
(b) in its investment regime
(c) investment of its regime
(d) investment in its regime
(e) No correction required

Q69. The honourable court had taken a lenient view because the accused have not previous conviction.
(a) had no previous conviction
(b) had not previously convicted
(c) had not been previous convictions
(d) had no previously convicted
(e) No correction required

Q70. Our foreign exchange reserves have increased substantial.
(a) have been increased substantially
(b) have increased substantially
(c) have substantially increasing
(d) have been substantial increase
(e) No correction required

Directions (71-80); Read each sentence to find out if there is any error in it. The error, if any will be in one part of the sentence. The number of that part is the answer if there is no error, the answer is (e). (ignore errors in punctuation , if any).

Q71. The meeting taken place (a)/ when you were (b)/ at a conference (c)/ in Delhi last month (d)/ No error (e)

Q72. Most companies neglect (a)/ to spend none (b)/ of their resources (c)/ on training older employees (d)/ No error (e)

Q73. Even today there are (a)/ several million people (b)/ who do not have (c)/ access of banking services (d)/ No error (e)

Q74. We are still (a)/ waiting for the (b)/ committee decision about (c)/ the pension plan (d)/ No error (e)

Q75. Ramesh doubts when (a)/ he will be ready (b)/ for the presentation (c)/ in time (d)/No error (e)

Q76. (a) All of the defendants are accused of involved /(b) in the killings of intellectuals, political opponents and secularists /(c) in the brutal war /(d) of independence in 1971. /(e) No error

Q77. (a) The essence of Jhumpa Lahiri's work lies /(b) in the conflicted inner lives of her characters, /(c) their trials and tribulations around difficult lives choices, and their perpetual struggles /(d) to negotiate their emotions vis-à-vis a hostile universe. /(e) No error

Q78. (a) Despite so much global concern and international support, /(b) satisfactory recovery of tiger population $/(\mathrm{c})$ still elude us $/(\mathrm{d})$ in all the tiger-range countries. $/(\mathrm{e})$ No error

Q79. (a) If one wants to use the film medium for social and political causes, /(b) the film-maker has to be adapt in the language of cinema, $/(\mathrm{c})$ like a soldier who has to be a master $/(\mathrm{d}$ ) of his weapons to survive on the battlefront.

Q80. (a) A new compound developed at the Tokyo Institute of Technology /(b) shows highly unusual conducting properties /(c) this could be used /(d) in future electronic components. /(e) No error

Direction (81-85): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

Some places are so beautiful that they (181) the viewer for all eternity. So it was for Emperor Muhammad Zahiruddin Babur, the 16th-century monarch who (82) away his time in the pleasure gardens of Kabul before heading south to India in 1525 to establish the Mughal Empire. Though Babur built a dynasty that was to last for 300 years, he never forgot his beloved Kabul, and exhausted vast riches to recreate the gardens (83) the subcontinent. Those Mughal gardens, as they are now known, grace ancient capitals from Delhi to Srinagar with their (84) vistas and strict architectural symmetry. But, Babur never really enjoyed at home in India and asked that (85) his death his body be returned to Kabul and laid to rest in his favourite garden.

Q81.
(a) attracted
(b) haunt
(c) fascinated
(d) accommodate
(e) implore

## Q82.

(a) cast
(b) fed
(c) gave
(d) whiled
(e) deported

Q83.
(a) into
(b) over
(c) overlooking
(d) throughout
(e) encroaching

Q84.
(a) elegant
(b) notorious
(c) obnoxious
(d) fragrant
(e) infrequent

Q85.
(a) before
(b) upon
(c) till
(d) in
(e) at

Directions (86-90): In the following questions a sentence is given with a blank in it. Following each sentence four words are provided. Choose the appropriate word that can fill the given blank to make the sentence both grammatically and contextually correct.

Q86. The elections assume $\qquad$ with top leaders of the regional parties remaining under detention after the August 5 decision to revoke J\&K's special status.
(a) Abrogation
(b) Calamity
(c) Significance
(d) Retraction
(e) None of these.

Q87. A stock limit of 50 quintals for retail traders and 500 quintals for wholesale traders has been
$\qquad$ —.
(a) Mandatory
(b) Imposed
(c) Inflictive
(d) Subrogation
(e) None of these.

Q88. We have to prepare fresh $\qquad$ rolls before holding polls for the vacant seats
(a) Electoral
(b) Arbitrary
(c) Flatten
(d) Cruise
(e) None of these.

Q89. Mr. Kejriwal claimed that no other city or nation in the $\qquad$ world has constructed primary healthcare centres, dispensaries or clinics in such vast numbers
(a) Impulse
(b) Juvenile
(c) Restrictive
(d) Entire
(e) None of these.

Q90. Three fruit and vegetable markets under the $\qquad$ of the South Delhi Municipal Corporation were declared "plastic free"
(a) Convention
(b) Jurisdiction
(c) Accumulation
(d) Residence
(e) None of these.

Directions (91-95): In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. 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 replace each other. If the sentence is correct as it is then select option (e) as your choice.

Q91. Justice Suresh Kumar Kait approached (A) the submission of Solicitor General Tushar Mehta that two material witnesses (B) had been cited (C) with the plea not to disclose (D) any information.
(a) B-D
(b) A-C
(c) C-D
(d) $A-B$
(e) No replacement required.

Q92. The investigating (A) Directorate is Enforcement (B) the alleged offence (C) of money laundering arising (D) out of the FIR.
(a) B-D
(b) A-C
(c) C-D
(d) A-B
(e) No replacement required.

Q93. The eight core bellwether (A) that form the sectors (B) for the Indian economy slumped (C) in August to their lowest growth (D) in four years and four months.
(a) B-D
(b) A-C
(c) C-D
(d) A-B
(e) No replacement required.

Q94. The NDMC passed a resolution (A) attacking the Delhi government for taking incidence (B) for the work done by the civic (C) body in reducing the credit (D) of dengue.
(a) B-D
(b) A-C
(c) C-D
(d) A-B
(e) No replacement required.

Q95. Kicking out (A) the redevelopment (B) of the (GPRA) colony, Mr. Puri said the project would be carried off (C) "without compromising (D) the green cover".
(a) B-D
(b) A-C
(c) C-D
(d) A-B
(e) No replacement required.

Directions (96-100): Two columns are given in each question and each column has three parts of a sentence. Choose the most suitable pair, which makes a grammatically correct and contextually coherent statement.

## Q96. COLUMN I

(A) Increasing demand will increase wages,
(B) It has been working for the weaker sections of the minority community
(C) The idea behind such debates, they said, was to spread awareness

## COLUMN II

(D) but will go out and mingle amongst us.
(E) thus increasing purchasing power and reviving rural demand.
(F) support sleeper class coaches as against only chair-car class coaches now.
(a) A-E
(b) B-F
(c) C-F
(d) C-D
(e) None of these

## Q97. COLUMN I

(A) If government gives land in a city free of cost or on heavy discount to hospitals,
(B) By giving mediation another chance, the court has opened the doors
(C) The court said mediation should continue to remain confidential

## COLUMN II

(D) it is successful in patching up a settlement.
(E) educational institutions or any such body, this in itself could also be substantial financing.
(F) which have been going on for over 25 days.
(a) A-E
(b) B-F
(c) C-F
(d) C-D
(e) None of these

## Q98. COLUMN I

(A) Substantial financing can be both, direct or indirect,
(B) There have been reports of mob questioning "suspected foreigners" in the
(C) A mob allegedly made four persons undergo a ‘Bangladeshi test’ in Baksa district of Assam,

## COLUMN II

(D) the Navy will seek an increase in its share of the defence budget
(E) it does not necessarily have to mean a major portion or more than $50 \%$.
(F) and handed them over to the police after questioning their citizenship status.
(a) A-E
(b) B-F
(c) C-F
(d) C-D
(e) None of these

## Q99. COLUMN I

(A) The memorandum suggested that mediation could continue
(B) The Aam Aadmi Party (AAP) will launch a Dalit outreach programme under which
(C) The Constitution Bench announced the failure to reach a final settlement

## COLUMN II

(D) pending appeals, which were kept in limbo due to the mediation, commenced from August 6.
(E) care was taken to maintain confidentiality to ensure its success.
(F) senior leaders would travel to Dalit colonies in the city.
(a) A-E
(b) B-F
(c) C-F
(d) C-D
(e) None of these

## Q100. COLUMN I

(A) Upon promulgation of the ordinance, any production and manufacturing
(B) After the government's ambitious plan of redeveloping Parliament,
(C) The Union Cabinet on Wednesday approved a ban on e-cigarettes,

## COLUMN II

(D) e-cigarettes shall be a cognisable offence punishable with imprisonment of up to one year.
(E) some architects raised concerns about the project.
(F) citing the need to take early action to protect public health.
(a) A-E
(b) B-E
(c) C-F
(d) Both (b) and (c)
(e) None of these

Directions (101-105): Given below pie chart show percentage distribution of total animals sold in six different pet shows. Read the data carefully and answer the following questions:

$$
\text { Total animals sold = } 1800
$$



Q101. Total number of animals sold in $C \& E$ together is what percent
less than total number of animals sold in F ?
(a) $16 \%$
(b) $18 \%$
(c) $10 \%$
(d) $12 \%$
(e) $14 \%$

Q102. Find the difference between average number of animals sold in C \& D and average number of animals sold in $B \& E$ ?
(a) 75
(b) 65
(c) 35
(d) 55
(e) 45

Q103. If ratio between total two legs to total four legs animals sold in $A$ is $5: 7$ and that of in $F$ is $4: 5$ respectively, then find difference between total two legs animals sold and total four legs animals in both pet shows?
(a) 122
(b) 112
(c) 92
(d) 102
(e) 128

Q104. Find the ratio of total number of animals sold in $B \& C$ together to total number of animals sold in A \& E together?
(a) $18: 13$
(b) $13: 18$
(c) $13: 21$
(d) $21: 13$
(e) $13: 17$

Q105. Total number of animals sold in B are what percent (approximate) more than the total number of animals sold in D?
(a) $27 \%$
(b) $25 \%$
(c) $23 \%$
(d) $21 \%$
(e) $19 \%$

Directions (106-110) - Line chart given below gives information about no. of article manufactured every year. Total no. of article for selling in a year are sum of article unsold in previous year and no. of articles manufactured in that year. In each year $(2014,2015$ and 2018$) 80 \%$ of article were sold in (2016 and 2017) only $70 \%$ article were sold.


Note - Company starts manufacturing articles from 2014.

Q106. No. of article sold in year 2015 are how much more than no. of article sold in 2014 ?
(a) 80
(b) 70
(c) 90
(d) 84
(e) 64

Q107. In which year no. of article sold are equal to no. of article sold in year 2016 ?
(a) 2014
(b) 2015
(c) 2017
(d) 2018
(e) None of these.

Q108. No. of article manufactured in year 2017 are what percent of no. of article sold in same year?
(a) $50 \%$
(b) $100 \%$
(c) $75 \%$
(d) $150 \%$
(e) $80 \%$

Q109. What is the sum of no. of article manufactured in year 2016 \& 2018 ?
(a) 1250
(b) 1070
(c) 1190
(d) 1110
(e) 1020

Q110. What is the ratio of no. of article sold in 2015 to no. of article available for selling in year 2018?
(a) $11: 12$
(b) $18: 19$
(c) $17: 19$
(d) $17: 21$
(e) None of these.

Directions (111-115): Table given below shows the total number of students of a school in six different years and percentage of girls out of total students in this school in these six years. Study the table carefully and answer the following questions.
Note: Total students in the school in any year $=$ Total number of (boys + girls) in the school in that year

| Years | Total students | Percentage of girls |
| :---: | :---: | :---: |
| 2014 | 4000 | $48 \%$ |
| 2015 | 3200 | $56 \%$ |
| 2016 | 5600 | $40 \%$ |
| 2017 | 6400 | $60 \%$ |
| 2018 | 2000 | $36 \%$ |
| 2019 | 1600 | $60 \%$ |

Q111. Total number of boys in school in 2017 \& 2019 together are what percent of total students in the school in 2014?
(a) $50 \%$
(b) $40 \%$
(c) $80 \%$
(d) $100 \%$
(e) $70 \%$

Q112. Average number of girls in the school in 2015, 2016 \& 2017 are how much more or less than total number of students in the school in 2015 ?
(a) 458
(b) 576
(c) 624
(d) 496
(e) 518

Q113. If in 2020, total number of students in the school are $25 \%$ more than the total number of students in the school in 2017 and number of boys in the school in 2020 are $50 \%$ more than number of boys in the school in 2016, then find number of girls in the school in 2020.
(a) 3360
(b) 2560
(c) 3560
(d) 2460
(e) 2960

Q114. Find the ratio of total number of girls in the school in $2016 \& 2019$ together to total number of boys in the school in $2014 \& 2018$ together respectively.
(a) $20: 21$
(b) $2: 3$
(c) $3: 2$
(d) $21: 20$
(e) None of the above.

Q115. Find total number of boys in the school in these given six years together.
(a) 11864
(b) 11476
(c) 11988
(d) 10846
(e) 11328

Q116. ' $A$ ' is $40 \%$ less efficient than ' $B$ ' who can do the same work in $20 \%$ less time than ' $C$ '. If $A$ and $B$ together can complete $80 \%$ of work in 12 days, then in how many days $60 \%$ of work can be completed by $B$ and $C$ together.
(a) 2 days
(b) 4 days
(c) 6 days
(d) 8 days
(e) 10 days

Q117. If a train running at the speed of $108 \mathrm{~km} / \mathrm{hr}$ crossed a 240 meters long platform in 14 sec . then find time taken by train to cross a 320 meters long goods train, which is running at the speed of 144 km /hr in opposite direction?
(a) $7 \frac{1}{7} \mathrm{sec}$
(b) $5 \frac{1}{7} \mathrm{sec}$
(c) $9 \frac{1}{7} \mathrm{Sec}$
(d) $11 \frac{1}{7} \mathrm{sec}$
(e) $13 \frac{1}{7} \mathrm{sec}$

Q118. The average age of Satish, sandy \& Abhi is 32 years and the ratio of their ages 10 years ago was 2 : $4: 5$ respectively. Find the present age of Satish?
(a) 16 yrs
(b) 12 yrs
(c) 10 yrs
(d) 22 yrs
(e) 18 yrs

Q119. Archit and Sandy enter into a business by investing in ratio $2: 3$ and the ratio of time period for which they invested is $4: 5$ respectively. If profit earned by Sandy is Rs. 420 more than the profit earned by Archit then find the total profit earned by Archit and Sandy both?
(a) Rs. 1320
(b) Rs. 1380
(c) Rs. 1440
(d) Rs. 1280
(e) Rs. 1460

Q120. There is a mixture of milk and water in which the ratio of milk to water is $3: 2$ respectively when, 40 liters of pure milk is added to the mixture, the ratio of water to milk become $1: 2$. If 90 liters of the new mixture is taken out then find the quantity of water in the remaining quantity of new mixture.
(a) 80 lit
(b) 75 lit
(c) 60 lit
(d) 50 lit
(e) 55 lit

Q121. A boat travels in upstream. If the speed of boat in upstream in decreased by $40 \%$ then it is equal to the speed of current and speed of boat in still water is given as $240 \mathrm{~km} / \mathrm{hr}$. Then find upstream speed of boat? (in km/hr).
(a) 120
(b) 180
(c) 150
(d) 210
(e) 125

Q122. The curved surface area of hemisphere $308 \mathrm{~cm}^{2}$. If the radius of hemisphere is equal to the height of cylinder \& ratio of height and radius of cylinder is $7: 3$ then find the total surface area of cylinder?
(in cm ${ }^{2}$ )?
(a) $62 \pi$
(b) $80 \pi$
(c) $60 \pi$
(d) $45 \pi$
(e) $40 \pi$

Q123. If a shopkeeper offers a single discount of $30 \%$ instead of two successive discounts of $25 \%$ and $12 \%$, he loses Rs. 76 on selling an article. If the price of the article is marked up by $52 \%$ then find the cost price of that article.
(a) Rs. 1250
(b) Rs. 1200
(c) Rs. 1320
(d) Rs. 1650
(e) Rs. 1120

Q124. $70 \%$ of a number is equal to $30 \%$ of another number. If average of both numbers is 24 , then find the larger number
(a) 14.4
(b) 32.6
(c) 33.6
(d) 28.6
(e) 24.2

Q125. Difference between CI \& SI for two years on a certain sum is given as Rs 120 \& the ratio of CI for two years on that sum to the value of sum is $24: 25$. Find the SI on the same sum for three years at the same rate of interest?
(a) Rs 940
(b) Rs 720
(c) Rs 900
(d) Rs 850
(e) Rs 800

Directions (126-135): What will come in the place of question mark (?) in the following number series:

Q126. ?, 5, 20, 120, 960, 9600
(a) 2
(b) 2.5
(c) 5
(d) 3
(e) 1

Q127. ?, 6, 4, 6, 22, 174
(a) 16
(b) 10
(c) 12
(d) 15
(e) 9

Q128. 55, 63, 76, 95, 121, ?
(a) 159
(b) 155
(c) 157
(d) 163
(e) 160
(f)

Q129. 6400, ?, 50, 12.5, 6.25, 6.25
(a) 365
(b) 400
(c) 375
(d) 380
(e) 360

Q130. ?, 8, 23, 68, 203, 608
(a) 4
(b) 5
(c) 2
(d) 3
(e) 8

Q131. 59, 64, 74, 91, 117, ?
(a) 160
(b) 154
(c) 150
(d) 170
(e) 190

Q132. 12, ?, 8, 17, 69, 553
(a) 6.5
(b) 7
(c) 6
(d) 5
(e) None of these

Q133. 24, 48, 96, 176, 296, ?
(a) 464
(b) 476
(c) 496
(d) 456
(e) 446

Q134.63, 215, 511, ?, 1727, 2743
(a) None of these
(b) 999
(c) 728
(d) 342
(e) 1330

Q135. 16, 85, 344, ?, 2072, 2073
(a) 1032
(b) 1033
(c) 1037
(d) 1042
(e) 1035

Direction (136-140): What approximate value should come in the place of question mark (?) in the following questions.

Q136. $40.09 \%$ of $749.91+?^{2}=52.03 \times 11.97$
(a) 16
(b) 18
(c) 12
(d) 14
(e) 8

Q137. $32.01 \times 4.99+?=64.03 \%$ of 349.97
(a) 48
(b) 96
(c) 72
(d) 64
(e) 32

Q138. $\frac{312.07}{?}+(12.99)^{2}=20.01 \%$ of 909.99
(a) None of these
(b) 48
(c) 6
(d) 12
(e) 24

Q139. ? + 727.03-92.99 $=799.99$
(a) 136
(b) 206
(c) 176
(d) 166
(e) 156

Q140. ? \% of $1050.03+363.99=(27.97)^{2}$
(a) 60
(b) 35
(c) 50
(d) 40
(e) 30

Q141. Average of 5 numbers is 82 . Average of 2 smallest numbers is 65 and average of 2 greatest numbers is 100 . Find the middle number if all these 5 numbers are arranged in increasing order.
(a) 85
(b) 100
(c) 70
(d) 80
(e) 90

Q142. Ratio of income to expenditure of Veer is 8 : 5. If income of Veer increased by $50 \%$ and saving of Veer remains same, then find the ratio of new/increased expenditure to initial expenditure of Veer.
(a) $11: 8$
(b) $12: 7$
(c) $3: 2$
(d) $4: 3$
(e) $9: 5$

Q143. Vessel - A \& B contains mixture of milk \& water in the ratio $2: 3$ and $3: 1$ respectively. Mixture of vessel - A \& B is mixed in vessel - C. If quantity of vessel - A \& B is same and vessel - C contains 92 liters of milk, then find total quantity of vessel - A.
(a) 80 liters
(b) 120 liters
(c) 50 liters
(d) 100 liters
(e) 60 liters

Q144. Population of a village is decreasing by $20 \%$ every year due to migration. If population of a village in 2018 is 7680, then find population of same village in 2015.
(a) 20000
(b) 15000
(c) 16000
(d) 12000
(e) 18000

Q145. Pipe - A \& B together can fill the tank in 36 hours and pipe - B \& C together can fill the same tank in 40 hours. Pipe - B is $20 \%$ less efficient than pipe - C. Find time taken to fill the same tank, when pipe $\mathrm{A}, \mathrm{B} \& \mathrm{C}$ together started filling the tank.
(a) 24 hours
(b) 20 hours
(c) 25 hours
(d) 16 hours
(e) 18 hours

Directions (146-150): - In each of the following questions, two equations (I) and (II) are given you have to solve both the equations and give answer.
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$.

Q146. I. $4 x^{2}-12 x+5=0$
II. $4 y^{2}+8 y-5=0$

Q147. I. $x^{2}-11 x+28=0$
II. $y^{2}-15 y+56=0$

Q148. I. $3 x^{2}-7 x+2=0$
II. $4 y^{2}-y=0$

Q149. I. $10 x^{2}+11 x+3=0$
II. $5 y^{2}+9 y+4=0$

Q150. I. $x+10=\sqrt[3]{3375}$
II. $\mathrm{y}-1=\sqrt{81}-4$


Solutions (1-5):

| Box |
| :--- |
| D |
| A |
| C |
| E |
| F |
| G |
| $B$ |
| $H$ |
| $K$ |

S1. Ans.(b)
S2. Ans.(b)
S3. Ans. (c)
S4. Ans.(d)
S5. Ans.(a)
Solutions (6-10):


S6. Ans.(d)
S7. Ans.(b)
S8. Ans. (c)
S9. Ans.(d)
S10. Ans.(b)
S11. Ans.(b)
Sol. (S and T) and (S and M)
Solutions (12-16):


S12. Ans.(b)
S13. Ans.(b)
S14. Ans. (b)
S15. Ans.(d)
S16. Ans.(d)
S17. Ans.(a)
Sol. Rope, Repo, Pore
Solutions (18-22):

| Floor | Person |
| :--- | :--- |
| 9 | G |
| 8 | B |
| 7 | H |
| 6 | K |
| 5 | E |
| 4 | $C$ |
| 3 | A |
| 2 | D |
| 1 | F |

S18. Ans.(c)
S19. Ans.(a)
S20. Ans. (c)
S21. Ans.(b)
S22. Ans.(b)
Solutions (23-27):
S23. Ans.(e)
Sol.


S24. Ans.(d)
Sol.


## S25. Ans.(a)

Sol.


S26. Ans.(b)
Sol.


S27. Ans.(b)
Sol.


Solutions (28-32):

S28. Ans. (d)
S29. Ans. (e)
S30. Ans.(d)
S31. Ans.(b)
S32. Ans. (d)

Solutions (33-37):


S33. Ans.(a)
S34. Ans.(b)
S35. Ans. (c)
S36. Ans.(d)
S37. Ans.(a)

Solutions (38-42):

| Words | Codes |
| :--- | :--- |
| summer | mn |
| season | hn |
| is | hi |
| boring | rd |
| winter | tr |
| are/gone | $\mathrm{vb} / \mathrm{jk}$ |
| people | bx |
| feel | az |

S38. Ans.(d)
S39. Ans.(c)
S40. Ans.(a)
S41. Ans.(d)
S42. Ans.(e)
Solutions (43-47):

| Person | Country | Color |
| :--- | :--- | :--- |
| P | Brazil | Grey |
| Q | Hong Kong | Red |
| R | Hong Kong | Purple |
| S | Argentina | Orange |
| T | Argentina | Black |
| U | Brazil | Blue |
| V | Argentina | Green |

S43. Ans.(c)
S44. Ans.(d)
S45. Ans. (a)
S46. Ans.(b)
S47. Ans.(c)

Solutions (48-50):
D $($ Blue $)>C($ yellow $)>A / E($ Pink $)>E / A($ Red $)>B($ Green $)$

S48. Ans.(d)
S49. Ans.(c)
S50. Ans.(d)

S51. Ans.(a)

## S52. Ans.(a)

Sol. The wealth gained through service exceeded the gain through manufacture.

## S53. Ans.(c)

Sol. The ability of an organization to raise funds.

## S54. Ans.(c)

Sol. Information based companies.

## S55. Ans.(a)

Sol. The venture capitalists have started financing the projects even at the planning stage.

## S56. Ans.(d)

Sol. Promoting information based and software companies.

## S57. Ans.(e)

Sol. Advent means the arrival of a notable person or thing. So, arrival is the word which is similar in meaning to it.

## S58. Ans. (d)

Sol. Traditional means existing in or as part of a tradition. So, customary is the word which is similar in meaning to it.

## S59. Ans.(b)

Sol. Burgeoning means begin to grow or increase rapidly; flourish. So, retarding is the word which is opposite in meaning to it.

## S60. Ans.(a)

Sol. Stagnating means cease developing; become inactive or dull. So, developing is the word which is opposite in meaning to it.
For question (61-65); The correct sequence to form meaningful paragraph is DBFACE.

S61. Ans.(d)

S62. Ans.(a)

S63. Ans.(e)

S64. Ans.(b)

S65. Ans.(c)

## S66. Ans.(e)

Sol. No correction required

## S67. Ans.(c)

Sol. Replace 'will be likely to face' with 'is likely to face'.

## S68. Ans.(e)

Sol. No correction required

## S69. Ans.(a)

Sol. Replace 'have not previous conviction' with 'had no previous conviction'

## S70. Ans.(b)

Sol. Replace 'have increased substantial' with 'have increased substantially'

## S71. Ans.(a)

Sol. Use 'took' in place of 'taken.' The sentence is in Simple Past Tense.

S72. Ans.(b)
Sol. Use 'any' in place of 'none'. Double negatives are not used in a sentence.

S73. Ans.(d)
Sol. Use 'to' in place of 'of'. Usually 'access to' is used.

## S74. Ans.(e)

Sol. The sentence is correct.

S75. Ans.(a)
Sol. Use 'if' in place of 'when'.

S76. Ans.(a)
Sol. Replace 'involved' with 'being involved'

S77. Ans.(c)
Sol. Replace 'lives' with 'life’

S78. Ans.(c)
Sol. Replace 'elude' with 'eludes'

S79. Ans.(b)
Sol. Replace 'adapt' with 'adept'

## S80. Ans.(c)

Sol. Replace 'this' with 'that'
S81. Ans.(b)
S82. Ans.(d)
S83. Ans.(d)
S84. Ans. (a)
S85. Ans. (b)

## S86. Ans.(c)

Sol. None of the given options will fit the given blank to make it contextually as well as grammatically correct. Hence, the correct answer choice would be option (c)

## S87. Ans.(b)

Sol. Taking hint from the use of 'stock limit' in the beginning of the sentence, it can be clearly seen that the appropriate filler for the given blank would be 'Impose'. Hence, the correct answer choice would be option (b)

## S88. Ans.(a)

Sol. Taking hint from the use of 'polls for the vacant seats' it can be clearly seen that the appropriate filler for the given blank would be 'electoral'. Hence the correct answer choice would be option (a)

## S89. Ans.(d)

Sol. Appropriate filler for the given blank is 'Entire' as can be seen from the usage of 'no other city or nation' in the given sentence. Hence, the correct answer choice would be option (d)

## S90. Ans.(b)

Sol. None of the given options will fit the given blank to make the given sentence both contextually as well as grammatically correct except 'Jurisdiction'. Hence, the correct answer choice would be option (b)

## S91. Ans.(b)

Sol. In the given statement, we will notice that the positions of (B) WITNESSES and (D) DISCLOSE are correct in context of the sentence. But (A) APPROACHED and (C) CITED have been incorrectly placed and interchanging them will make the sentence grammatically and contextually correct.
The correct statement thus formed will be:
Justice Suresh Kumar Kait cited the submission of Solicitor General Tushar Mehta that two material witnesses had been approached with the plea not to disclose any information.
Hence, option (b) is the correct answer.

## S92. Ans.(d)

Sol. In the given statement, we will notice that the positions of (C) offence and (D) arising are correct in context of the sentence. But (A) investigating and (B) Enforcement have been incorrectly placed and interchanging them will make the sentence grammatically and contextually correct.
Hence, option (d) is the correct answer.

## S93. Ans.(d)

Sol. In the given statement, we will notice that the positions of (C) slumped and (D) growth are correct in context of the sentence. But (A) bellwether and (B) sectors have been incorrectly placed and interchanging them will make the sentence grammatically and contextually correct.
The correct statement thus formed will be:
The eight core sectors that form the bellwether for the Indian economy slumped in August to their lowest growth in four years and four months.
Hence, option (d) is the correct answer.

## S94. Ans.(a)

Sol. In the given statement, we will notice that the positions of (A resolution and (C) civic are correct in context of the sentence. But (B) incidence and (D) credit have been incorrectly placed and interchanging them will make the sentence grammatically and contextually correct.
The correct statement thus formed will be:
The NDMC passed a resolution attacking the Delhi government for taking credit for the work done by the civic body in reducing the incidence of dengue.
Hence, option (a) is the correct answer.

## S95. Ans.(b)

Sol. In the given statement, we will notice that the positions of (B) redevelopment and (D) compromising are correct in context of the sentence. But (A) out and (C) off have been incorrectly placed and interchanging them will make the sentence grammatically and contextually correct.
The correct statement thus formed will be:
Kicking off the redevelopment of the (GPRA) colony, Mr. Puri said the project would be carried out "without compromising the green cover".
Hence, option (b) is the correct answer.

## S96. Ans.(a)

Sol. Only A-E can make a contextually correct and grammatically meaningful sentence. Rest of the phrases are fail to do so because they are part of some other sentences.
Sentence thus formed by combining A-E is :
Increasing demand will increase wages, thus increasing purchasing power and reviving rural demand.

## S97. Ans.(a)

Sol. Only A-E can make a contextually correct and grammatically meaningful sentence. Rest of the phrases are fail to do so because they are part of some other sentences.
Sentence thus formed by combining A-E is :
If government gives land in a city free of cost or on heavy discount to hospitals, educational institutions or any such body, this in itself could also be substantial financing.

## S98. Ans.(c)

Sol. Only C-F can make a contextually correct and grammatically meaningful sentence. Rest of the phrases fail to do so because they are part of some other sentences.
Sentence thus formed by combining C-F is :
A mob allegedly made four persons undergo a 'Bangladeshi test' in Baksa district of Assam, and handed them over to the police after questioning their citizenship status.

## S99. Ans.(b)

Sol. Only B-F can make a contextually correct and grammatically meaningful sentence. Rest of the phrases fail to do so because they are part of some other sentences.
Sentence thus formed by combining B-F is : The Aam Aadmi Party (AAP) will launch a Dalit outreach programme under which senior leaders would travel to Dalit colonies in the city.

## S100. Ans.(d)

Sol. Only B-E and C-F can make a contextually correct and grammatically meaningful sentence. Rest of the phrases fail to do so either because they are in different context or due to some grammatical error .
Sentence thus formed are :
After the government's ambitious plan of redeveloping Parliament, some architects raised concerns about the project.
The Union Cabinet on Wednesday approved a ban on e-cigarettes, citing the need to take early action to protect public health.

## S101. Ans.(d)

Sol. Total number of animals sold in $\mathrm{F}=1800 \times \frac{25}{100}=450$
Total number of animals sold in C \& E together $=1800 \times \frac{(12+10)}{100}=396$
Required percentage $=\frac{450-396}{450} \times 100$
$=\frac{54 \times 100}{450}=12 \%$

## Alternative solution

Required percent $==\frac{25-(12+10)}{25} \times 100=12 \%$

## S102. Ans.(e)

Sol. Average number of animals sold in C \& D $=\frac{1800 \times \frac{(10+13)}{100}}{2}$
$=\frac{414}{2}=207$
Average number of animals sold in $B \& E=\frac{1800 \times \frac{(16+12)}{100}}{2}$
$=\frac{504}{2}=252$
Required difference $=252-207=45$

## S103. Ans.(a)

Sol. Total two legs animals sold in A \& F
$=1800 \times \frac{24}{100} \times \frac{5}{12}+1800 \times \frac{25}{100} \times \frac{4}{9}$
$=180+200=380$
Total four legs animals sold in A \& F
$=1800 \times \frac{24}{100} \times \frac{7}{12}+1800 \times \frac{25}{100} \times \frac{5}{9}$
$=252+250=502$
Required difference $=502-380=122$

## S104. Ans.(b)

Sol.
Required ratio $=\frac{1800 \times \frac{(16+10)}{100}}{1800 \times \frac{(24+12)}{100}}=13: 18$
Or, Alternative -
Required ratio $=\frac{(16+10) \%}{(24+12) \%}=13: 18$

## S105. Ans.(c)

## Sol.

Required percentage $=\frac{1800 \times \frac{16}{100}-1800 \times \frac{13}{100}}{1800 \times 100}$
$=\frac{288-234}{234} \times 100=23.07 \approx 23 \%$
Or alternative
$=\frac{16-13}{13} \times 100$
$=\frac{300}{13} \approx 23 \%$

## Solutions (106-110):

For 2014
No. of article manufactured $=800$
No. of article sold $=800 \times \frac{80}{100}=640$
For 2015
No. of article manufactured $=740$
No. of article available for selling $=740+800 \times \frac{20}{100}=900$
No. of article sold $=900 \times \frac{80}{100}=720$
No. of article unsold $=900 \times \frac{20}{100}=180$
For 2016
No. of article manufactured $=520$
No. of article available for selling $=520+180=700$
No. of article sold $=700 \times \frac{70}{100}=490$
No. of article unsold $=700 \times \frac{30}{100}=210$
For 2017
No. of article manufactured $=490$
No. of article available for selling $=490+210=700$
No. of article sold $=700 \times \frac{70}{100}=490$
No. of article unsold $=700 \times \frac{100}{100}=210$
For 2018
No. of article manufactured $=550$
No. of article available for selling $=550+210=760$
No. of article sold $=760 \times \frac{80}{100}=608$
No. of article unsold $=760-608=152$

## S106. Ans.(a)

Sol. required difference $=720-640=80$

## S107. Ans.(c)

Sol. in year 2017 no. of article sold are equal to no. of article sold in 2016.

## S108. Ans.(b)

Sol. required percentage $=\frac{490}{490} \times 100=100 \%$

## S109. Ans.(b)

Sol. required sum $=520+550=1070$

## S110. Ans.(b)

Sol. required ratio $=720: 760$
= 18: 19

## S111. Ans.(c)

Sol. Total number of boys in school in $2017 \& 2019$ together $=\left(6400 \times \frac{100-60}{100}\right)+\left(1600 \times \frac{100-60}{100}\right)$
$=2560+640$
$=3200$
Required $\%=\frac{3200}{4000} \times 100$
= $80 \%$

## S112. Ans.(b)

Sol. Average number of girls in the school in 2015, 2016 \& 2017
$=\frac{1}{3} \times\left(\left(3200 \times \frac{56}{100}\right)+\left(5600 \times \frac{40}{100}\right)+\left(6400 \times \frac{60}{100}\right)\right)$
$=\frac{1}{3} \times(1792+2240+3840)$
$=2624$
Required difference $=3200-2624$
$=576$

## S113. Ans.(e)

Sol. Total number of students in the school in $2020=\frac{125}{100} \times 6400$ = 8,000
And, number of boys in the school in $2020=\frac{150}{100} \times 5600 \times \frac{100-40}{100}$
$=5040$
Hence, number of girls in the school in $2020=8000-5040$
$=2960$

## S114. Ans.(a)

Sol. Number of girls in the school in 2016 \& 2019 together $=\left(5600 \times \frac{40}{100}\right)+\left(1600 \times \frac{60}{100}\right)$
$=2240+960$
$=3200$
Number of boys in the school in 2014 \& 2018 together $=\left(4000 \times \frac{100-48}{100}\right)+\left(2000 \times \frac{100-36}{100}\right)$
$=2080+1280$
$=3360$
Required ratio $=\frac{3200}{3360}$
$=20: 21$

## S115. Ans.(e)

Sol. Required number of boys $=\left(4000 \times \frac{100-48}{100}\right)+\left(3200 \times \frac{100-56}{100}\right)+\left(5600 \times \frac{100-40}{100}\right)+(6400 \times$ $\left.\frac{100-60}{100}\right)+\left(2000 \times \frac{100-36}{100}\right)+\left(1600 \times \frac{100-60}{100}\right)$
$=2080+1408+3360+2560+1280+640$
$=11328$

## S116. Ans.(d)

Sol. Ratio of efficiency of A and B=3:5
$\Rightarrow$ Time taken be A and B alone to complete the work $=5: 3$
Ratio of time taken by B and C alone to complete the work = 4:5
$\Rightarrow$ Ratio of time taken by A, B and C alone to complete the work $=20: 12: 15$
Let, $A, B$ and $C$ alone can complete the work alone is $20 x, 12 x$ and $15 x$ days respectively.
ATQ,
$\frac{12}{20 \mathrm{x}}+\frac{12}{12 \mathrm{x}}=\frac{80}{100}$
$\Rightarrow \frac{144+240}{240 \mathrm{x}}=\frac{4}{5}$
$\Rightarrow \frac{5 \times 384}{4 \times 240}=\mathrm{x}$
$\Rightarrow \mathrm{x}=2$
Let in ' $a$ ' days ' $B$ ' and ' $C$ ' can complete $60 \%$ of work
ATQ,
$\frac{a}{12 \times 2}+\frac{a}{15 \times 2}=\frac{60}{100}$
$\Rightarrow \frac{5 \mathrm{a}+4 \mathrm{a}}{120}=\frac{3}{5}$
$\Rightarrow \mathrm{a}=\frac{3}{5} \times \frac{120}{9}=8$ days

## S117. Ans.(a)

Sol. Let length of train $=\mathrm{L}$ meters
ATQ-
$108 \times \frac{5}{18}=\frac{\mathrm{L}+240}{14}$
$30 \times 14=\mathrm{L}+240$
$\mathrm{L}=180$ meters
Let time taken by train be T sec to cross goods train
$=(144+108) \times \frac{5}{18}=\frac{180+320}{\mathrm{~T}}$
$252 \times \frac{5}{18}=\frac{500}{\mathrm{~T}}$
$\mathrm{T}=\frac{500}{70}$
$\mathrm{T}=7 \frac{1}{7} \mathrm{sec}$.

## S118. Ans.(d)

## Sol.

Total age of Satish, Sandy \& Abhi
$=32 \times 3=96$ years
Total age 10 years ago $=96-30=66$ years
Present age of Satish $=\frac{66}{11} \times 2+10=22 \mathrm{yrs}$

## S118. Ans.(b)

Sol.
Ratio of profit = Archit : Sandy

$$
\begin{array}{clc}
2 \times 4 & : & 3 \times 5 \\
8 & : & 15
\end{array}
$$

Let profit of Archit be 8 x and Sandy be 15 x .
ATQ,
$15 \mathrm{x}-8 \mathrm{x}=420$
$7 \mathrm{x}=420$
$\mathrm{x}=60$
Required total $=60 \times 23=$ Rs. 1380

## S119. Ans.(d)

Sol.
Let the quantity of milk in the original mixture be 3 x .
And the quantity of water be 2 x .
ATQ,
$\frac{3 x+40}{2 x}=\frac{2}{1}$
$\Rightarrow 4 \mathrm{x}=3 \mathrm{x}+40$
$\Rightarrow x=40$
Quantity of new mixture $=5 \times 40+40=240$ lit.
$\therefore$ Required quantity of water $=(240-90) \times \frac{1}{3}=50$ lit.

## S121. Ans.(c)

## Sol.

Let speed of current be $\mathrm{x} \mathrm{km} / \mathrm{hr}$.
ATQ,
$(240-\mathrm{x}) \times \frac{60}{100}=\mathrm{x}$
144-0.6x=x
$1.6 \mathrm{x}=144$
x=90
speed in upstream $=250-90=150 \mathrm{~km} / \mathrm{hr}$

## S122. Ans.(c)

## Sol.

Curved surface area of hemisphere
$=2 \pi r^{2}=308[r \rightarrow$ radius of hemisphere $]$
$=7 \mathrm{~cm}$
Height of cylinder (h) $=7 \mathrm{~cm}$
Radius of cylinder $(\mathrm{R})=\frac{7}{7} \times 3=3 \mathrm{~cm}$
Total surface area of cylinder
$=2 \pi R(R+h)$
$=2 \times 3 \times 10 \pi=60 \pi \mathrm{~cm}^{2}$

## S123. Ans.(a)

## Sol.

Let cost price of article be Rs 100x
Marked price $=100 \mathrm{x} \times \frac{152}{100}=152 \mathrm{x}$
Selling price after single discount of $30 \%$
$=152 \mathrm{x} \times \frac{70}{100}=$ Rs 106.4 x
Selling price after two successive discounts of $25 \%$ and $12 \%$
$=152 \mathrm{x} \times \frac{75}{100} \times \frac{88}{100}=$ Rs 100.32 x
ATQ,
$106.4 \mathrm{x}-100.32 \mathrm{x}=76$
$\mathrm{x}=12.5$
$\therefore$ Cost price of article $=$ Rs 1250

## S124. Ans.(c)

Sol.
Let two numbers are x and y respectively
According to question.
$\frac{70 \times x}{100}=\frac{30 \times y}{100}$
$\Rightarrow \frac{\mathrm{x}}{\mathrm{y}}=\frac{3}{7}$
$\Rightarrow \mathrm{x}=\frac{3}{7} \mathrm{y} \ldots$ (i)

Now Average of numbers $=\frac{x+y}{2}=24$
$\Rightarrow \mathrm{x}+\mathrm{y}=48 \ldots$ (ii)
Put value of $x$ from (i) into (ii)
$\Rightarrow{ }_{7}^{3} y+y=48$
$\Rightarrow \frac{10 y}{7}=48$
$\Rightarrow y=33.6$
$\Rightarrow \mathrm{x}=48-33.6=14.4$
Larger number $=33.6$

## S125. Ans. (c)

## Sol.

Let sum be Rs $P$
ATQ,
$\frac{\mathrm{CI}}{\mathrm{P}}=\left[\left(1+\frac{\mathrm{R}}{100}\right)^{2}-1\right]$
$\frac{24}{25}+1=\left(1+\frac{\mathrm{R}}{100}\right)^{2}$
$\frac{49}{25}=\left(1+\frac{\mathrm{R}}{100}\right)^{2}$
$\mathrm{R}=40 \%$
For time period of $2 y$ ears
$\frac{\mathrm{PR}^{2}}{100^{2}}=$ difference $\Rightarrow 120=\frac{\mathrm{P} \times(40)^{2}}{(100)^{2}}$
$\mathrm{P}=$ Rs 750
$\mathrm{SI}=\frac{\mathrm{P} \times \mathrm{R} \times \text { Time }}{100}=\frac{750 \times 40 \times 3}{100}=$ Rs 900

## S126. Ans.(b)

Sol.
Pattern of series -


S127. Ans. (a)
Sol.
Pattern of series -


## S128. Ans.(b)

Sol.
Pattern of series -


S129. Ans.(b)
Sol
Pattern of series -


S130. Ans.(d)
Sol.
Pattern of series -


S131. Ans.(b)
Sol.
Pattern of series -


## S132. Ans.(b)

Sol.
Pattern of series -
$\times 0.5+1, \quad \times 1+1, \quad \times 2+1, \quad \times 4+1, \times 8+1$
So, ? $=12 \times 0.5+1=7$

S133. Ans.(a)
Sol.
Pattern of series -
$24+\left(5^{2}-1\right)=48$
$48+\left(7^{2}-1\right)=96$
$96+\left(9^{2}-1\right)=176$
$176+\left(11^{2}-1\right)=296$
$?=296+\left(13^{2}-1\right)=464$

## S134. Ans.(b)

Sol.
Pattern of series -
$63=\left(4^{3}-1\right)$
$215=\left(6^{3}-1\right)$
$511=\left(8^{3}-1\right)$
? = $\left(10^{3}-1\right)=999$
$1727=\left(12^{3}-1\right)$
$2743=\left(14^{3}-1\right)$

## S135. Ans. (e)

Sol.
Pattern of series -
$16 \times 5+5=85$
$85 \times 4+4=344$
$344 \times 3+3=1035$
$1035 \times 2+2=2072$
$2072 \times 1+1=2073$

## S136. Ans.(b)

## Sol.

$\frac{40}{100} \times 750+?^{2}=624$
$?^{2}=624-300$
$?^{2}=324$
? $=18$

S137. Ans.(d)
Sol.
$160+?=\frac{64}{100} \times 350$
? $=224-160$
? $=64$

S138. Ans.(e)
Sol.
$\frac{312}{?}+169=\frac{20}{100} \times 910$
$\frac{312}{?}=182-169$
$\frac{312}{?}=13$
? $=24$

## S139. Ans.(d)

Sol.
$?+727-93=800$
? $=800-634$
$?=166$

## S140. Ans.(d)

Sol.
$\frac{?}{100} \times 1050+364=(28)^{2}$
$\frac{?}{100} \times 1050=784-364$
$\frac{?}{100} \times 1050=420$
$?=\frac{420 \times 100}{1050}$
? $=40$

S141. Ans.(d)
Sol. Required number $=(82 \times 5)-(65 \times 2)-(100 \times 2)$
$=410-130-200$
$=80$

## S142. Ans.(e)

Sol. Let initial income and expenditure of Veer be Rs.8x and Rs.5x respectively.
So, savings of Veer $=8 \mathrm{x}-5 \mathrm{x}$
= Rs. 3 x
New income of Veer $=8 x \times \frac{150}{100}$
$=$ Rs. 12 x
And, new/increased expenditure of Veer $=12 x-3 x$
= Rs. 9 x
Required ratio $=\frac{9 x}{5 x}$
= $9: 5$

## S143. Ans.(a)

Sol. Let total quantity of each of vessel - A \& B be 20x liters.
ATQ,
$\left(20 x \times \frac{2}{5}\right)+\left(20 x \times \frac{3}{4}\right)=92$
$8 x+15 x=92$
$x=4$
So, required quantity $=20 \mathrm{x}$
$=80$ liters

## S144. Ans.(b)

Sol. Let population of village in 2015 be 100x.
ATQ,
$100 \mathrm{x} \times \frac{80}{100} \times \frac{80}{100} \times \frac{80}{100}=7680$
$x=\frac{76800}{512}$
$\mathrm{x}=150$
So, required population $=100 \mathrm{x}$
$=15000$

## S145. Ans.(a)

Sol. Let total capacity of the tank be 360 liters (LCM of 36 \& 40).
And, let efficiency of pipe - C be $5 x$ units/day.
So, efficiency of pipe $-B=4 x$ units/day
ATQ,
$(5 x+4 x)=\frac{360}{40}$
$\mathrm{x}=1$
So, efficiency of pipe $-\mathrm{A}=\frac{360}{36}-4$
$=6$ units/day
Required time $=\frac{360}{5+4+6}=24$ hours

## S146. Ans.(b)

Sol.
I. $4 x^{2}-12 x+5=0$
$4 \mathrm{x}^{2}-10 \mathrm{x}-2 \mathrm{x}+5=0$
$2 x(2 x-5)-1(2 x-5)=0$
$(2 x-5)(2 x-1)=0$
$\mathrm{x}=\frac{5}{2}, \frac{1}{2}$
II. $4 y^{2}+8 y-5=0$
$4 y^{2}+10 y-2 y-5=0$
$2 y(2 y+5)-1(2 y+5)=0$
$(2 y-1)(2 y+5)=0$
$y=\frac{1}{2}, \frac{5}{2}$
So, $x \geq y$

## S147. Ans.(d)

Sol.
I. $x^{2}-11 x+28=0$
$x^{2}-7 x-4 x+28=0$
$x(x-7)-4(x-7)=0$
$(x-7)(x-4)=0$
$x=7,4$
II. $y^{2}-15 y+56=0$
$y^{2}-7 y-8 y+56=0$
$y(y-7)-8(y-7)=0$
$(y-7)(y-8)=0$
$y=8,7$
$x \leq y$

S148. Ans.(a)
Sol.
I. $3 x^{2}-7 x+2=0$
$3 x^{2}-6 x-x+2=0$
$3 x(x-2)-1(x-2)=0$
$(\mathrm{x}-2)(3 \mathrm{x}-1)=0$
$\mathrm{x}=\frac{1}{3}, 2$
II. $4 y^{2}-y=0$
$y(4 y-1)=0$
$y=0, \frac{1}{4}$
So, $x>y$

S149. Ans.(a)
Sol.
I. $10 x^{2}+11 x+3=0$

$$
10 x^{2}+6 x+5 x+3=0
$$

$$
2 x(5 x+3)+1(5 x+3)=0
$$

$(5 x+3)(2 x+1)=0$
$x=\frac{-3}{5}, \frac{-1}{2}$
II. $5 y^{2}+9 y+4=0$
$5 y^{2}+5 y+4 y+4=0$
$5 y(y+1)+4(y+1)=0$
$(y+1)(5 y+4)=0$
$y=-1, \frac{-4}{5}$
$x>y$

## S150. Ans.(c)

Sol.
I. $x+10=\sqrt[3]{3375}$
$\mathrm{x}=15-10$
$\mathrm{x}=5$
II. $\mathrm{y}-1=\sqrt[2]{81}-4$
$y=6$
So, $\mathrm{y}>\mathrm{x}$


