1. Direction: What value should come at the place of question mark (?) in the given number series?
4.7, 5.3, 6.5, 8.3, ?
A. 10.2
B. 12.5
C. 16.6
D. 10.7
E. 9.8
2. Direction: What will come in place of the question mark (?) in the following number series?
7, 6, 10, 27, ?, 515
A. 100
B. 104
C. 110
D. 116
E. 124
3. Direction: What should come in place? in the following number series?
$11,6,7,16,68$, ?
A. 356
B. 552
C. 458
D. 659
E. 125
4. Direction : What should come in the place of question mark(?) in the following series
$6,13,38, ?, 764,4585$
A. 153
B. 123
C. 172
D. 164
E. None of these
5. Direction: What should come in place of question mark (?) in the following number series?
792167273 ?
A. 1352
B. 1517
C. 1157
D. 1276
E. 1371
6. Direction: Find the missing number in the given series.
1200, 2240, ?, 112, 28, 5.6
A. 640
B. 580
C. 860
D. 450
E. 560
7. Direction: In each question two equations numbered I and II are given. You have to solve both the equations and mark the answer:
I. $x^{2}-9 x+18=0$
II. $y^{2}-11 y+18=0$
A. If $x>y$
B. If $x<y$
C. If $x=y$ or no relation is obtained
D. If $x \geq y$
E. If $x \leq y$
8. Direction: In each of these questions two equations numbered (I) and (II) are given. You have to solve both the equations and give answer:
I. $x^{2}-16 x+63=0$
II. $y^{2}-2 y-35=0$
A. $x>y$
B. $x>=y$
C. $x<y$
D. $x=<y$
E. $x=y$ or no relationship can't be established between $x$ and $y$.
9. Direction: In the following question, there are two equations. Solve the equations and answer accordingly:
$x^{2}+x-42=0$
$y^{2}-13 y+42=0$
A. $x>y$
B. $x<y$
C. $x \geq y$
D. $x \leq y$
E. $x=y$ OR No relation can be established(CND)
10. Direction: In the following question, two equations are given. You have to solve these equations and give the answer:
I. $x^{2}-7 x+6=0$
II. $11 y^{2}-13 y+2=0$
A. $x>y$
B. $x<y$
C. $x \geq y$
D. $x \leq y$
E. $x=y$ or no relation can be established
11. Direction: In the following question, two equations are given. Solve the equations and answer accordingly
I. $2 X+5 Y=31$
II. $7 X+3 Y=36$
A. $X>Y$
B. $X<Y$
C. $X \geq Y$
D. $X \leq Y$
E. $X=Y$ OR No relation can be established(CND)
12. Direction: In the following question two equations are given in variables $X$ and $Y$. You have to solve these equations and determine relation between X and Y .
$20 x^{2}-81 x+63=0$
$20 y^{2}-y-21=0$
A. $x>y$
B. $y>x$
C. $x \geq y$
D. $y \leq x$
E. $x=y$ or relation cannot be determined
Direction (13-17): Study the table carefully to answer the following questions:

| Number (in crores) of pens <br> manufactured by six companies <br> over the years |
| :--- |


| Year $\rightarrow$ <br> Company $\downarrow$ | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{P}$ | 48.2 | 28.3 | 29.4 | 36.6 | 21.8 | 53.0 |
| $\mathbf{Q}$ | 51.6 | 36.5 | 43.5 | 18.1 | 23.5 | 35.7 |
| $\mathbf{R}$ | 32.3 | 47.9 | 25.6 | 38.7 | 50.9 | 42.6 |
| $\mathbf{S}$ | 27.9 | 51.5 | 33.5 | 43.6 | 44.7 | 26.5 |
| $\mathbf{T}$ | 28.3 | 41.5 | 50.8 | 24.1 | 30.4 | 36.2 |
| $\mathbf{U}$ | 45.5 | 26.2 | 44.9 | 40.5 | 38.7 | 41.5 |

13. What is the ratio of the number of pens manufactured by Company $R$ in the year 2009 to that of those manufactured by Company T in the year 2008?
A. $152: 213$
B. $213: 152$
C. $71: 76$
D. $76: 71$
E. None of these
14. What is the approximate per cent increase in the number of pens manufactured by Company $P$ in the year 2009, from the previous year?
A. 143
B. 157
C. 59
D. 122
E. 94
15. What is the average number of pens manufactured by all companies together in the year 2007?
A. 3360000
B. 336000000
C. 3360000000
D. 33600000
E. None of these
16. The number of pens manufactured by Company Q in the year 2005 is approximately what per cent of the total number of pens manufactured by it in all the years together?
A. 24
B. 32
C. 11
D. 29
E. 17
17. How many more pens need to be manufactured by Company S in the year 2009 to make the ratio of the number of pens manufactured by Company S to that of those manufactured by Company $U$ in the year 2009 as $54: 83$ ?
A. 80000000
B. 2500000
C. 34000000
D. 5000000
E. None of these
18. In a class 80 students and 5 teachers, each student got sweets that are 15\% of the total number of students and each teacher got sweets, that are $25 \%$ of the total number of students. How many sweets were there?
A. 1050
B. 1040
C. Other than those given as option
D. 1060
E. 1030
19. Two pipes can fill a tank in 18 minutes and 15 minutes. An outlet pipe can empty the tank in 45 minutes. If all the pipes are opened when the tank is empty, then how many minutes will it take to fill the tank?
A. 12
B. 11
C. 13
D. 10
E. 14
20. A shopkeeper marks up the price of his product by $40 \%$. If he increases the discount from $5 \%$ to $10 \%$, the profit will be decreased by Rs. 35. How much profit/loss percentage would he earn if he gives a discount of $30 \%$ on the marked price?
A. Profit of $5 \%$
B. Profit of $2 \%$
C. Loss of 2\%
D. Neither loss nor profit
E. None of these
21. At a movie theatre, stall tickets are available at Rs. 100 and balcony tickets are available at Rs.150.If the total capacity of the theatre is 3000 seats, including only stall and balcony. The total revenue generated at the theatre when it was housefull is Rs. 400000 . Find the capacity of the stall?
A. 2000
B. 1000
C. 1500
D. 1800
E. 2200
22. The incomes of $A$ and $B$ are in the ratio $5: 9$; their savings are in the ratio $3: 5$. What is the ratio of their expenditures, if $B$ saves two-thirds of his income?
A. 7:1
B. $8: 15$
C. 7:20
D. $7: 18$
E. 7:15

Direction (23-27): Study the graph and answer the given questions: Number of Refrigerators and Washing machines sold by wholesaler over the years

23. What is the ratio of total sale in 2001 and 2005?
A. $23: 37$
B. 43 : 57
C. $49: 52$
D. $33: 58$
E. None of these
24. In which year, was the total sale the second highest?
A. 2002
B. 2006
C. 2005
D. 2001
E. None of these
25. In how many years, was the total sale less than 1000?
A. 1
B. 2
C. 3
D. 4
E. None of these
26. Find the difference between the number of washing machines sold in 2003 and the average number of washing machines sold for the given years.
A. 25
B. 33
C. 17
D. 35
E. None of these
27. The average number of refrigerators sold per year is what percent of the number of refrigerators sold in 2001?
A. $85 \%$
B. $70 \%$
C. $75 \%$
D. $90 \%$
E. None of these
28. 6 rats and 10 mice together take five days to eat up a stock of 50 kg rice. How many days will 10 mice will take to eat 50 kg rice stock if six rats together can eat up a stock of 100 kg rice in 15 days?
A. 17
B. 16
C. 15
D. 14
E. None of these
29. A defective handbag costing Rs. 800 is being sold at a loss of $8 \%$. If the price is further reduced by $5 \%$, find its approximate selling price.
A. 725
B. 600
C. 650
D. 700
E. None of these
30. The ratio of the age of a man and his wife is $4: 3$. After 4 years this ratio will be 9:7. If the time of the marriage, the ratio was $5: 3$, then how many years ago they were married?
A. 11
B. 18
C. 10
D. 12
E. 14

Direction (31-35): Refer to the piechart and answer the given questions:
The percentage of items produced by six companies
The number of items produced by company A $=3960$

31. What is the total number of items produced by company A, C, and F?
A. 15480
B. 12280
C. 14520
D. 16420
E. None of these
32. What is the difference between the number of items produced by company $B$ and $E$ ?
A. 3680
B. 2840
C. 3240
D. 4250
E. None of these
33. $17 \%$ and $25 \%$ items are defective for the company $C$ and $D$ respectively. What is the ratio of the number of defective items for company $C$ and $D$ ?
A. $31: 72$
B. 17 : 90
C. 7:29
D. $23: 76$
E. None of these
34. The number of items produced by company E is what percent of the average number of items produced by all given companies?
A. $65 \%$
B. $125 \%$
C. $70 \%$
D. $144 \%$
E. None of these
35. What is the central angle corresponding to the number of items produced by company F?
A. $79{ }^{\circ} 30^{\prime}$
B. $97^{\circ} 12^{\prime}$
C. $68^{\circ} 6^{\prime}$
D. $84^{\circ} 24^{\prime}$
E. None of these
36. In a business $A, B$ and $C$ invested capital in the ratio $2: 3: 4$ and they received profit in the ratio $4: 3: 2$. What is the ratio of time for which the capital has been invested?
A. $5: 3: 1$
B. $1: 2: 4$
C. $3: 2: 3$
D. $4: 2: 1$
E. None of these
37. Nikhil sold three buffalos for Rs 12000, 13000 and Rs 31000. On first buffalo he made a profit of $20 \%$ and on second he made $30 \%$ profit. If he made $40 \%$ profit on over all transaction. Find the cost price of third buffalo?
A. Rs 30000
B. Rs 10000
C. Rs 20000
D. Rs 15000
E. Rs 18000
38. Nikhil invested $13 \%$ of his salary in shopping. $9 / 29^{\text {th }}$ of remaining he saves and difference between shopping savings and shopping expenses is Rs 9800. Out of remaining amount some part is spent on loans and house rent .If
house rent and loan expenses is 4000 less than all other expenses, then what is the loan amount?
A. Rs 12500
B. Rs 12000
C. Rs 18500
D. Rs 8000
E. Rs 16000
39. The ratio of two numbers is $1 \frac{1}{2}: 2 \frac{2}{3}$. If each of the number is increased by 10 the ratio becomes $1 \frac{2}{3}: 2 \frac{1}{2}$. The bigger number is
A. 46
B. 48
C. 40
D. 32
E. 50
40. A boat moving upstream covers 60 Km in 4 Hours and the speed of the boat is $20 \mathrm{Km} / \mathrm{hr}$ then what is the distance covered by the boat in 4 hours rowing downstream.
A. 120 KM
B. 125 Km
C. 100 Km
D. 140 Km
E. 80 Km

Direction (41-45): Study the information carefully and answer the following questions.
A total of 1650 employees are working in a mechanical company in florida, US. The ratio of male employees to female employees is 86: 79. There are total 5 departments in the company i.e. Designing, Quality, Production, Maintenance and HR. Total 198 males work in "Designing department". 18\% employee's works in quality department, in which male to female ratio is $5: 4$. In Maintenance department, 77 males are working and the number of females in this department is $5 / 7$ of the number of males. The number of males in quality department is equal to number of females in designing department. The number of males of Maintenance department is half of the number of males in HR department. Male to female ratio in production department is 14: 19.
41. No. of males in production department is how much more than females in designing department?
A. 99
B. 91
C. 109
D. 105
E. None of these
42. Females in production department is what percent of total number of females in the company (approximate)?
A. $44.7 \%$
B. $45.7 \%$
C. $48.9 \%$
D. $49.2 \%$
E. $38.9 \%$
43. No. of Females in Maintenance department is what percent less than the no. of females in designing department?
A. $33 \frac{1}{3} \%$
B. $66 \frac{2}{3} \%$
C. $61 \frac{1}{3} \%$
D. 70
E. None of these
44. What is the difference between no. of male employees of Designing, Quality and HR department together and no. of females of Designing, Maintenance and production department together.
A. 54
B. 64
C. 35
D. 96
E. None of these (B)
45. If the $5 / 12$ of the females of the quality department are shifted to HR department. Then males in HR department is what times of no. of females in the same department. (round off to 2 decimal places).
A. 1.07
B. 1.17
C. 1.27
D. 1.37
E. 1.32
46. The distance between two stations $A$ and $B$ is 200 km . A train leaves A towards B at an average speed of $60 \mathrm{~km} / \mathrm{hr}$. After an hour, another train leaves B towards A at an average speed of $80 \mathrm{~km} / \mathrm{hr}$. The distance of the point where the two trains meet, from A is
A. 100 km
B. 140 km
C. 120 km
D. 180 km
E. None
47. If $P$ can complete a work in 30 days, $Q$ can do the same work in 36 days, If they work together and after 5 days, P leaves the work. Find in how many days Q will do the remaining work ?
A. 22days
B. 28days
C. 25days
D. 36days
E. 34days
48. The price of sugar is increased by $25 \%$ due to which a family buys 1 kg less sugar for Rs. 160 so as to not increase his total expenditure. Find the original price of sugar.
A. $32 \mathrm{Rs} / \mathrm{kg}$
B. $40 \mathrm{Rs} / \mathrm{kg}$
C. $36 \mathrm{Rs} / \mathrm{kg}$
D. $35 \mathrm{Rs} / \mathrm{kg}$
49. Two mixtures a and $b$ have alcohol and water in the ratio of $2: 3$ and $3: 4$ respectively. If 20 litre of mixture a was mixed with 28 litre of mixture $b$ then find the ratio of alcohol to water in resultant mixture.
A. $5: 7$
B. $7: 5$
C. $4: 5$
D. $16: 11$
E. None of these
50. In how many different ways can the letters of the word 'HAPPY' be arranged?
A. 110
B. 130
C. 60
D. 70
E. 80

Direction (51-55): Study the information given below and answer the questions based on it.
Eight friends G, H, I, J, K, L, M and N are sitting in a straight line facing north. All of them like different colours, viz Orange, Red, Pink, Green, Brown, Blue, Black and Yellow, but not necessarily in the same order. The one who likes Yellow sits third to the right of M. I is on the immediate left of $M$. The person who likes Pink sits second to the left of I. H sits second to the right of $N$, who likes neither Yellow nor Pink. Only two persons sit between $K$ and the one who likes Red. $G$ and $L$ are immediate neighbours and both of them do not like Yellow. The person who likes Orange sits second to the right of G. There are two persons between J and the one who likes

Red. J does not like Yellow. The one who likes Blue is an immediate neighbour of the one who likes Yellow. The one who likes Brown sits second to the left of G. One of the immediate neighbours of $M$ likes Black. J sits on an extreme end of the line.
51. Who among the following sits at the end of the line?
A. G
B. The one who likes Red
C. The one who likes Yellow
D. M
E. L
52. Which pair is sitting exactly in the middle of the line?
A. $N$ and $G$
B. I and G
C. $M$ and $N$
D. I and M
E. None of these
53. Who sits third to the right of G ?
A. N
B. K
C. H
D. $M$
E. None of these
54. Which of the following colour does M like?
A. Red
B. Orange
C. Blue
D. Yellow
E. None of these
55. Which of the following combination is true?
A. M-Black
B. N-Red
C. G-Green
D. H-Blue
E. None of these

Direction (56-60): In the question there are given four statements followed by two conclusions numbered 1, 2. 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.
56. Statement:

Some pins are cloths.
No cloths are shoes.
Some shoes are tie.
All ties are broach.

## Conclusion:

1) Some ties are not cloths.
2) Some pins are not shoes.
A. None is true
B. Only 1 is true
C. Only 2 is true
D. Both 1st and 2 nd are true
E. None of these
57. Statement:

Some whatsapp are not hike.
Some hike is not wechat.
All wechat are amazon.
Some amazon are flipkart.

## Conclusion:

1) Some hike is not amazon.
2) All hike can be amazon.
A. None is true
B. Only 1 is true
C. Only 2 is true
D. Both 1st and 2nd are true
E. None of these
58. Statement:

All forts are palaces.
All palaces are house.
Some houses are bungalow.
Some palaces are not cottage.
Conclusion:

1) Some cottage can be house.
2) All bungalow can be cottage.
A. None of the conclusion is true
B. Only conclusion 1 is true
C. Only conclusion 2 is true
D. Both conclusions 1 and 2 are true
E. None of these
59. Statement:

No $P$ is $Q$.
Some Q are S.
All $P$ are $T$.
Some T are Z.

## Conclusion:

1) Some $Z$ are $Q$.
2) All $Z$ are not $Q$ can be a possibility.
A. None is true
B. Only 1 is true
C. Only 2 is true
D. Both 1st and 2nd are true
E. None of these

## 60. Statements:

No field is sugar.
Some sugar is maize.
Some maize is wheat.
Some wheat are fields.

## Conclusions:

1) Some sugar is not wheat.
2) No field is maze.
A. None of the conclusion is true
B. Only conclusion 1 is true
C. Only conclusion 2 is true
D. Both conclusions 1 and 2 are true
E. None of these

Direction (61-65): Study the information given below and answer the questions based on it.
Eight persons are sitting around a circular table named - Ram, Rama, Ramu, Raju, Raja, Ramesh, Rupesh, and Rohit (not necessarily in the same order). They all are facing to the centre and all of them are going to different places Jaipur, Delhi, Gurugram, Noida, Bangalore, Kota, Mumbai, Mathura.
Ram is facing towards the southwest direction and he goes to Delhi. Ram is sitting in front of the one who is going to Jaipur. Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south. Ramu is facing north west direction and likes to go Noida. Rohit is going to Bangalore. Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu. Rupesh is going to Mumbai and is sitting opposite to one who is facing west. Raju is facing north - east direction. The person who sits between the one who likes to go kota and Delhi, is going to Mathura.
61. Who is sitting to the immediate right of Rama?
A. Ramesh
B. Rupesh
C. Rama
D. Raju
E. Raja
62. Which of the following pair is correct?
A. Ramesh is going to Bangalore
B. Rohit is going to Mathura
C. Rama is going to Mathura
D. Ramesh is not going to Gurugram
E. Raja is going to Jaipur
63. Who is sitting between Rupesh and Ramesh and in which direction that person is facing?
A. Ramu, North - West
B. Ram, East
C. Rohit, West
D. Rama, South
E. Raju, North -East
64. Who is sitting in the South - West direction?
A. Ramu
B. Ram
C. Rohit
D. Rama
E. Raju
65. Who is sitting opposite to the person who is going to the Gurugram?
A. Ramu
B. Ram
C. Rohit
D. Rama
E. Raju

Direction (66-68): Read the given information carefully and answer the questions given below.
Eight members A, B, C, D, E, F, H and K of a family consisting of three generations. The spouse of $F$ is not the brother of $D$, who is the son of $B$. F and $D$ are not married to each other. $H$ is the only grandson of $A$ and both $A$ and $H$ don't have any sibling. Only a married couple can have a child and every married couple has a child. $E$ and $A$ doesn't belong to the same generation. C, who is married, is not the mother of K. A is married to $B$, who is the father-in-law of $F$. $E$, has a nephew, who is not the son of $K$. $E$ and $K$ are not in the same generation. $D$ and $E$ are not married to each other. $K$ is not the sibling of $B$.
66. How is $H$ related with respect to $B$ ?
A. Grandson
B. Granddaughter
C. Son
D. Son-in-law
E. Daughter-in-law
67. What is the relationship between $F$ and A?
A. A is the father of $F$
B. $F$ is the son of $A$
C. $F$ is a grandson of $A$
D. $F$ is the son-in-law of $A$
$E$. $A$ is the father-in-law of $F$
68. How is $C$ related with respect to $F$ ?
A. $C$ is sister of $F$
B. $C$ is wife of $F$
C. $C$ is the sister-in-law of $F$
D. $C$ is a daughter of $F$
$E$. $C$ is mother of $F$
Direction (69-73): Study the information given below and answer the questions based on it.

## In a certain code language,

'facing problems with environmental health' is written as 'mlp hlt ngi snt tgt ', 'health problems on rise standard' is written as 'hlt sa rtv mlp rts' 'rise with every environmental challenge' is written as 'snt rtv Ine riy tgt'
'facing challenge each day life' is written as 'ngi riy nop hus pzy' 'environmental is each long life' is written as 'tgt pzy wxy hus uqp'.
69. Which may be the possible code for 'problems facing each challenge'?
A. mlp ngi hus riy
B. hlt ngi pzy riy
C. Either option (a) or (b)
D. pzy tgt riy uqp
E. pzy tgt riy snt
70. 'rts uqp nop' can be the code for which of the following sentences in the given language?
A. on day is
B. facing problems with
C. health on rise
D. facing challenge each
E. environmental life long
71. If the code for 'health problems rise standard' is 'hlt mlp rtv rts' then what is the code for 'standard'?
A. mlp
B. uqp
C. rtv
D. snt
E. rts
72. What is the code for 'problems' in the given language?
A. mlp
B. rtv
C. hlt
D. Either (A) or (C)
E. rts
73. What is the code for 'environmental challenge' in the given language?
A. tgt uqp
B. rtv tgt
C. tgt riy
D. Either option (A) or (C)
E. None of these

Direction (74-78): Study the information given below and answer the questions based on it.
There are eight employees A, B, C, D, E, $F, G$ and $H$ working in a company visiting an offshore site on the dates 10th or 18th of the following months- February, April, July, and August in a single year. One person visits the site only once a year.
Only three persons visit the site between A and C. B visits the site in the month with more than 30 days. Only 2 persons visit the site between $G$ and $E$. $E$ visits the site before $G$. $E$ does not visit the site on 18th of any month. There are two persons who visit the site between $F$ and H. F visits the site before H and does not visit in the month with 31 days. A does not visit in a month with 30 days and $B$ does not visit the site before or after H . $C$ visits immediately before $G$ and $B$ visits immediately after $A$. One person visits between B and D.
74. D visits the site in which of the following months?
A. February
B. April
C. July
D. August
E. None of these
75. Who among the following visits the site on the 10th of August?
A. D
B. H
C. A
D. $B$
E. E
76. How many persons visit between $C$ and A?
A. Four
B. Three
C. Two
D. One
E. None
77. If we arrange all the persons alphabetically from the first date to the last date then the position of how many employees' remains the same?
A. Four
B. Three
C. Two
D. One
E. None
78. If we replace the visiting date of $D$ to that of G and visiting date of $A$ to that of $C$ then how many persons visit between $A$ and $G$ ?
A. Two
B. Three
C. One
D. Four
E. None

Direction (79-81): Study the information given below carefully and answer the questions that follow.
Six athletes Bolt, Gatlin, Blake, Powell, Carter and Greene are running in a 100 m race. Each of them completed the race in different positions. Blake and Bolt took 9.98 seconds and 9.68 seconds respectively to complete the race. Powell finished the race after only two athletes. Carter is the only person who finished the race before Gatlin and after Blake. Bolt didn't win the race.
79. What is the expected speed of Greene while running in the race?
A. $11 \mathrm{~m} / \mathrm{sec}$
B. $8 \mathrm{~m} / \mathrm{sec}$
C. $6 \mathrm{~m} / \mathrm{sec}$
D. $2 \mathrm{~m} / \mathrm{sec}$
E. $10 \mathrm{~m} / \mathrm{sec}$
80. Which athlete took expected time of 9.72 sec to complete the race?
A. Bolt
B. Powell
C. Gatlin
D. Carter
E. Greene
81. Which of the following athletes has a speed of $9 \mathrm{~m} / \mathrm{sec}$ ?
A. Powell
B. Bolt
C. Carter
D. Gatlin
E. Either Carter or Gatlin

Direction (82-86): Read the following information carefully and answer the question given below it:
There are certain number of boxes kept one above the other. There are 5 boxes between box $P$ and box $R$. Box $T$ is kept immediately above R. Box $Z$ is kept somewhere above R. 3 boxes are kept between box T and box S . Number of boxes between $P$ and $S$ is same as the number of boxes between T and Q .

There are as many boxes kept between $V$ and $S$ as there are between $Q$ and $Y$. Box $U$ is kept below box $Q$ but above $P$. Box $W$ is kept somewhere above $X$. There is only one box kept between $U$ and V. There are less than 12 boxes kept in the stack. Either Box R or $P$ is kept at the bottom of the stack. Box Y is kept below Q.
82. What is the position of box $W$ in the given arrangement?
A. Third from the bottom
B. Fourth from the top
C. Fifth from top
D. Six from the bottom
E. Fourth from the bottom
83. Which of the following pairs of boxes is kept immediately above and below box S?
A. U and V
B. P and V
C. $S$ and $R$
D. T and W
E. R and $X$
84. How many boxes are kept between $X$ and $P$ ?
A. 3
B. 5
C. Zero
D. 4
E. 2
85. How many boxes are kept in the stack?
A. 8
B. 12
C. 11
D. 10
E. 9
86. Which of the following statement is/are true?
I. Two boxes between $T$ and Q .
II. S is kept below W .
III. $U$ is kept immediately above $P$.
A. Only I
B. Only II
C. Only III
D. Both I and II
E. Both II and III

Directions (87-89): Study the following information carefully and answer the questions given below:
A person is standing at point $P$. He starts waking towards his west and walks for 5 m then he take a left turn and walks for 6 m then he takes a left turn and walks for 3 m then he takes a right and walks for $2 m$ and reached at point $R$ then he takes a left turn and walks for 6 m then he takes a right turn and walks for 5 m and stopped at point Q .
87. If point $T$ is $4 m$ to the west of point $Q$ then how far is point $T$ with respect to point $P$ ?
A. 12 m
B. 10 m
C. 13 m
D. 11 m
E. 9m
88. In which of the following direction is point $R$ with respect to point $P$ ?
A. North-west
B. South-east
C. South-west
D. South
E. North-east
89. If Point $S$ is $8 m$ to the north of point $R$ then in which of the following direction is point $S$ with respect to point $P$ ?
A. West
B. North-west
C. South-west
D. South
E. East
90. A report by PayScale a research firm, tries to measure the returns on higher education in America. They vary enormously. A graduate in computer science from Stanford can expect to make $\$ 1.7 \mathrm{million}$ more over 20 years than someone who never went to college, after the cost of that education is taken into account. A degree in humanities and English at Florida International University leaves you $\$ 132,000$ worse off. Arts degree at $12 \%$ of the colleges in the study offered negative returns, $30 \%$ offered worse financial rewards than putting the cash in 20-year Treasury bills.
Which of the following is a conclusion made in the passage?
A. Many American universities offer lousy value formoney.
B. Students study fine arts to enhance theirappreciation of the family Rembrandts.
C. Most 18-year-olds in America go to college to geta good job.
D. College is a wise investment
E. Everyone is entitled to their own opinion
91. Direction: In the question given below, a statement is given followed by three courses of action. A course of action is taken for improvement, follow up, etc. Read the statement carefully and give your answer.

## Statement:

There is one doctor for every 17,685 persons in Bihar, Health Minister Mangal Pandey said in the Assembly.

## Courses of Actions:

I. The government of Bihar should take immediate steps to ensure that more doctors are recruited in the state.
II. The government of Bihar should roll out incentives so that more students study medicine and graduate as doctors. III. The Health Ministry should increase the number of clinics in all villages.
A. If only course of action I follows
B. If only course of action II follows
C. If both I and II follow
D. If both II and III follow
$E$. If none of them follow
92. Direction: A statement is given followed by three inferences numbered I, II, and III. Consider the statement to be true even if it is at variance with commonly known facts. You have to decide which of the inferences, if any, follow from the given statement.

## Statement:

The Reuters Institute digital news report found that the use of social media - such as Facebook - for news has started to fall for the first time since records began seven years ago.

## Inferences:

I. Fake news, lies, and falsehood spread faster on social media than truth does.
II. All this while, most of the people in developed countries such as America and Canada were getting their news from social media.
III. The Reuters Institute digital reports reveal new insights about digital news consumption based on a representative survey of online news consumers.
A. Only I can be inferred
B. Both I and II can be inferred
C. Only III can be inferred
D. Both I and III can be inferred
E. Both II and III can be inferred
93. Direction: In given question below, a statement is followed by some assumptions. An assumption is something supposed or taken in for granted. You have to consider the statement and the following assumptions and then decide which of the assumptions is implicit in the statement.

## Statement:

Wars must be discouraged vehemently even though majority of the victims might have been a nuisance to peace loving people.

## Assumptions:

I. Wars kill majority of wicked people. II. Innocent people are also killed in wars.
III. Vehement opposition to wars may have some desirable impact.
A. Only assumption II and III are implicit
B. Only assumption III is implicit
C. Only assumption III and either I or

II are implicit
D. All assumptions are implicit
E. None of these
94. Firms have long known that only about half of all desks are in use at any moment, as employees work off hours or disappear to meetings, but it was difficult to fill the spares. Better IT systems now mean that people need not be tied to a particular desk. They need not even be in the office at all, further reducing the need for desks.

## The conclusion above is properly drawn if which of the following is assumed?

A. Nowadays it's almost frowned on to have your own office
B. Offices are collaborative spaces where people bump into each other and chat usefully
C. Offices are not just places to work but also a way of expressing corporate identity.
D. More people are working from home and from other places
E. Productivity at home is more than working in a corporate environment.

Direction (95-99): In the following question, some statements are followed by some conclusions. Assuming the given statements to be true, find which of the two conclusions follow the given statements and choose appropriate answer choice.
95. Statement:
$M \geq G, T \geq B, P<R=S, Q=P, G=T, Q>B$
Conclusion:
I. $M \geq B$
II. $\mathrm{T}<\mathrm{P}$
A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I or II is true
E. Both conclusions I and II are true

Direction (96-105): Read the given passage carefully and answer the questions that follow. Certain words are printed in bold to help you locate them while answering some of these.
Gender neutrality, also known as gender-neutralism or the gender neutrality movement, describes the idea that policies, language, and other social institutions should avoid distinguishing roles according to people's sex or gender, in order to avoid discrimination arising from the impression that there are social roles for which one gender is more suited than another. Proponents of gender neutrality may support public policies designed to eliminate gender distinctions, such as gender-neutral bathrooms, with public restrooms being available without distinguishing the gender of the person using them. It has been observed that gender neutrality in the law has changed the nature of custody disputes, making it more likely that men will be awarded custody of their children in the event of a divorce.
The legal definition of gender has been a controversial topic particularly to transgender people; in some countries in order to be legally defined as a new sex people must first undergo
sterilization. An issue related to gender neutrality is the gray areas that exist in gender. Trying to legally define the boundaries of gender has proven a difficult issue with the existence of people who identify or who are identified by others as intersex, third gender, transgender and more generally gender queer or non-binary.
Someone who identifies as gender blind takes the perspective of gender neutrality in everyday life. Similar to this is pan sexuality, where the person is not necessarily totally gender blind, but in their sexual preference they make no distinction between the genders of their sexual partners.
Gender-neutral language, genderinclusive language, inclusive language or gender neutrality is a form of linguistic prescriptivism that aims to eliminate (or neutralize) reference to gender in terms that describe people. This can involve discouragement of the use of gender-specific job titles, such as policeman/policewoman, fireman, stewardess, and, arguably, chairman, in favour of corresponding gender-neutral terms such as police officer, firefighter, flight attendant and chairperson (or chair). Other gender-specific terms, such as actor and actress, may be replaced by the originally male term (actor used for either gender).
The pronouns 'he' or 'she' may be replaced with 'they' when the gender of the person referred to is unknown. Some also advocate for a gender-neutral pronoun to be used even when the sex of a person is known, in an effort to remove the alleged subconscious effects of language in reinforcing gender and gender stereotypes. In addition, those who do not identify as either female or male may use a gender-neutral pronoun to refer to themselves or have others refer to them.
"Gender-neutral language" should not be confused with "genderlesslanguage",
which refers to a language that does not have grammatical gender.Gender neutrality emphasizes the equal treatment of men and women legally with no discrimination whatsoever. This goal is in principle shared with both feminists and masculists. However, in gender neutralism, the emphasis is on transcending the perspective of gender altogether rather than focusing on the rights of specific genders.
Gender neutrality or "gender transcendence" is part of the trans humanist concept of post genderism. Advocates of post genderism argue that the presence of gender roles, social stratification, and cogno-physical disparities and differences are generally to the detriment of individuals and society. Given the radical potential for advanced assistive reproductive options, postgenderists believe that sex for reproductive purposes will either become obsolete, or that all postgendered humans will have the ability, if they so choose, to both carry a pregnancy to term and father a child, which, postgenderists believe, would have the effect of eliminating the need for definite genders in such a society. Source:
https://en.wikipedia.org/wiki/Gender_n eutrality
96. Which of the following best describes the term 'gender neutrality'?
A. The idea that advocates for more power to women
B. The idea that advocates separation of social roles and gender
C. The idea that backs the policy separation for men and women on the basis of gender
D. The idea that stands for the rights of both men and women
$E$. None of the above
97. Which of the following defines the cause of concern of the post-genderists?
A. Gender roles must be reversed.
B. The presence of gender creates an imbalance in the society
C. Gender discrepancies are inimical to the society.
D. Gender segmentation stratifies the society, already struggling with multiple stigmas, into yet another division.
$E$. None of the above
98. Which of the following defines the perks of lingual prescriptivism?
A. It aims to neutralize reference to gender in terms that describe people B. It involves the encouragement of gender-specific speech to give everyone equal importance.
C. It helps create a language that doesn't have grammatical gender
D. Both $A$ and $B$
E. None of the above
99. Which of the following justifies that defining gender is a controversial issue?
A. It has never been talked about overtly.
B. It creates an outlandish situation for the people who don't belong to the two conventional genders.
C. The government doesn't back overt discussions on gender-related issues. D. There is a lack of research data on the non-conventional genders.
E. None of the above
100. 'The advancement in technology helps bridge gaps between the desired and the impossible.' Which of the following justifies the statement in the context of the passage?
A. Advanced researches have shown that the options to switch genders will soon be available free of cost in government hospitals
B. Advanced researches have shown that reproduction will soon become obsolete
C. Advanced researches on reproductive options have identified that soon the post-gendered would be able to bear a child.
D. Advanced researches have shown that the conventional genders will soon stop desiring for a new generation $E$. None of the above
101. Which of the following is the MOST SIMILAR in meaning to 'dispute'?
A. Squabble
B. Apostle
C. Concordance
D. Causatum
E. Imprint
102. Which of the following is the MOST SIMILAR in meaning to 'perspective'?
A. Dissension
B. Condemnation
C. Prospect
D. Exponent
E. Sympathy
103. Which of the following is the MOST SIMILAR in meaning to 'transcend'?
A. Consonance
B. Initiate
C. Bolster
D. Outstrip
E. Urge
104. Which of the following is the MOST OPPOSITE in meaning to 'reinforce'?
A. Reciprocity
B. Concord
C. Culmination
D. Tout
E. Undermine
105. Which of the following is the MOST OPPOSITE in meaning to 'stratification'?
A. Denouement
B. Outset
C. Unison
D. Cessation
E. Repercussion
106. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
Brain scans can detect autism long before any $\qquad$ start to emerge, say scientists. The earliest that children tend to be diagnosed at present is at the age of two, although it is often later. The findings could lead to an early test and even therapies that work while the brain is more $\qquad$ .
A. manifestation, menacing
B. symptoms, malleable
C. expositions, perilous
D. arrays, vulnerable
E. None of the above
107. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.

The first $\qquad$ of gravitational waves at the US LIGO laboratories in late 2015 has been described as one of the most important physics breakthroughs in decades. Being able to sense the $\qquad$ warping of spacetime that occurs as a result of cataclysmic events offers a completely new way to study the Universe, one that does not depend on traditional telescope technology.
A. apprehension, moderate
B. cognition, protracted
C. detection, subtle
D. erudition, protracted
E. None of the above
108. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
The central bank's monetary policy committee has $\qquad$ to sit pat on rates and choose to give $\qquad$ time to "assess how the transitory effects of demonetization on inflation and the output gap play out."
A. chosen, out
B. picked, themselves
C. opted, itself
D. opt, themselves
E. select, it
109. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
Excise and customs collections are also projected to grow at a sluggish -, which means the government is that the impact of demonetization on consumer spending will last longer than expected.
A. rate, answering
B. celerity, renouncing
C. pace, acknowledging
D. hobble, abjuring
E. shuffle, condoning
110. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
We are always $\qquad$ by the fact that the finance ministry will have limited resources, and won't be able to us more investment. So, for the first time, we have looked at extrabudget resources.
A. driven, gives
B. repressed, gives
C. limited, gave
D. persuaded, give
E. constrained, give
111. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
The company's economic advisor has rightly identified procurement as a major $\qquad$ to ensure that production cost does not crash ___ the end of 2016, leading to a contraction in acreage in 2017-18.
A. threat, approaching
B. problems, near
C. key, of
D. point, at
E. challenge, towards
112. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
Many big businesses realize that by simply listening to and understanding the needs of their disabled customers, a rich new $\qquad$ stream can be opened up. It is not about charity, though. It makes hard business sense to address the needs of this $\qquad$ .
A. revenue, demographic
B. swift, fraternity
C. remolded, confraternity
D. transfigured, assemble
E. None of the above
113. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
Amazon, $\qquad$ more than any other company, has the ability to create a onestop, one-click shipping portal that would vastly $\qquad$ the process for manufacturers while making it easier for them to track shipments.
A. possibly, obscure
B. maybe, mystify
C. frankly, decipher
D. perhaps, simplify
E. Unlikely, elucidate
114. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
Navigating the $\qquad$ of social media without upsetting an individual takes serious concentration but the internet provides people with a degree of $\qquad$ which goes a long way in facilitating them to speak their minds out.
A. folio, consciousness
B. epoch, apprehension
C. convictions, rapidness
D. nuances, anonymity
E. None of the above
115. Directions: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the pair of words that best fits in the blanks.
An unquestionable ___ can be seen in video games where women are sometimes portrayed in games ludicrously and inappropriately dressed for the situation they are in- as if cleavage was a more effective defense than body armor.
A. felony, enticing
B. transgression, tantalizing
C. absurdity, exhibiting
D. malfeasance, enthralling
E. None of the above

Directions (116-120): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in a proper sequence to form a meaningful paragraph, then answer the questions that follow.
A. The city's bowl shape and the fact that its lock gates cannot be opened when the rising water level coincides with high tide causes waterlogging.
B. More worrying is the disappearance of the city's green cover, recent satellite pictures show it has dipped to less than five percent.
C. The civil body over the past few years has taken a series of steps including the construction of new pumping stations, increasing the number of portable pumps and dredging of canals to improve the system.
D. The East Kolkata Wetlands are considered as the city's natural kidneys because they treat the city's sewage naturally.
E. "But there is a limit. There won't be any water logging if it rains at the rate of less than 10 mm per hour. If the rain is more, there would be waterlogging," said Tarak Singh member-mayor-incouncil of Kolkata Municipal Corporation. F. According to a report from climate central a US-based research organization, Kolkata along with Mumbai are among the top 10 megacities across the world that face a serious threat due to rising sea levels owing to climate change.
116. Which of the following will be the Last sentence after rearrangement?
A. A
B. B
C. C
D. D
E. E
117. Which of the following will be the Fourth sentence after rearrangement?
A. A
B. B
C. C
D. D
E. F
118. Which of the following will be the second sentence after rearrangement?
A. E
B. D
C. C
D. $F$
E. A
119. Which of the following will be the First sentence after rearrangement?
A. A
B. $F$
C. B
D. C
E. D
120. Which of the following will the Third sentence after rearrangement?
A. A
B. $F$
C. C
D. $B$
E. E
121. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
The Christians and Marxists, (1)/ who once critiqued (2)/ capitalism, have found out that (3)/ their ideologies are no less regressive. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
122. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
This three philosophers share (1)/ a methodical, deliberate and an (2)/ almost plodding approach (3)/ on philosophical puzzles. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
123. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.

In the present era of ubiquitous technology, (1)/ philosophers are beginning to (2)/ ask whether the biological anatomy (3)/ really captures the entirety of whom we are. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
124. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Besides the headline-making cases of mass shooters, (1)/ their are thousands of instances each year (2)/ in which police authorities try (3)/ to get access to encrypted devices. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
125. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Without a pen or a pencil, (1)/a great deal of complex reflection (2)/ and analysis would (3)/ never has been possible. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
126. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Instead, they were (1)/ unwilling to accept (2)/ which social theory is actually (3)/ valid knowledge in the first place. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
127. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Liza demonstrated the point (1)/ for great elegance using a (2)/ battered and stuffed robin, (3)/ bought for a shilling from a junk shop. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
128. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
128. Stromatolites would have appeared somewhat like (1)/ ancient fossilised coral reefs, (2)/ if those reefs have been (3)/ built by microbes rather than coral. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
129. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Although, the provenance of this particular (1)/ paper had nothing to do with the (2)/ archives, despite a copy of it (3)/ being held in the collection. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
130. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
This aesthetic purism was in (1)/ part determined with the association (2)/ of flash photography with (3)/ newsmen and commercial agencies. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
131. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark the answer as "No error". Ignore the errors of punctuation if any.
Its brevity and literary passion (1)/ has seen it join that small club (2)/ of philosophical texts that the (3)/ general reading public are capable of enjoying. (4)
A. 1
B. 2
C. 3
D. 4
E. No error
132. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
Mark and I managed to straighten down the house before our parents got home.
A. Straighten up
B. Straighten along
C. Straighten across
D. Straighten at
E. No correction required
133. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
The car was blocked by other vehicles and would required considerably manoeuvring before she could leave.
A. Require considerably
B. Required considerable
C. Require considerable
D. Required considerate
E. No correction required
134. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
To gain this, an extensive propaganda was carried on by secret agents, many of whom were officers.
A. Extensively propaganda
B. Extensible propaganda
C. Extension propaganda
D. Extensively propagandas
E. No correction required
135. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
If she have seen the ice on the road, she would have slowed down, and she wouldn't have gotten in an accident.
A. Has seen
B. Had seen
C. Would have seen
D. Would had seen
E. No correction required
136. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
His plans to trek through South America fell upon when he got sick.
A. Fell across
B. Fell down
C. Fell along
D. Fell Through
E. No correction required
137. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
John Taylor Gatto criticizes public schools because they are compulsory,
funded by the government, and normalizing.
A. Government-funded
B. Funding by the government
C. Have been funded by the government
D. Government-funding
E. No correction required
138. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
We were not able to stay overnight at the hotel since we did not reserve a room in advance.
A. Did not reserved
B. Have not reserved
C. Had not reserved
D. Has not reserved
E. No correction required
139. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
I am not paying attention while I was writing the letter, so I made several mistakes.
A. Was not paying attention
B. Am not attentive
C. Were not paying attention
D. Have not been attentive
E. No correction required
140. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E), i.e., 'No correction required'.
He failed to recognize the pressing need of reform within the church and the tremendous dangers which threatened the papal monarchy; and he unpardonably neglectedthe spiritual needs of the time.
A. Unpardonably neglected a spiritual
B. Unpardonable neglecting the spiritual
C. Unpardonable neglecting a spiritual
D. Unpardonably neglecting the spiritual

## E. No correction required

Direction (141-145): Read the given passage carefully and answer the questions that follow.
A recent report released by the Housing and Land Rights Network (HRLN) on the

Smart Cities Mission poses the question: "Smart for whom?" It also states that in 2017, forced evictions and demolitions of homes were documented in 32 of the cities participating in the Smart Cities Mission. While many of those evictions were related to the mission, demolishing slums so that cities conform to the aesthetic norms of a "world-class" city, without taking into account the paucity of formal housing that cities offer, has been a long-standing practice. At least six homes are destroyed and 30 people forcibly evicted each hour in India as authorities modernise cities and build highways.
The "smart city" idea is extremely attractive, especially to the middle and upper classes who experience Indian cities as being anything but smart. It is a concept frequently thrown about but lacking a clear definition, though at heart it has emerged mainly as an instrument to make cities more competitive in economic terms. The Smart Cities Mission focuses on smart grids and devices to generate economic growth, create wealth and sizeable demand for rural and agricultural products, thereby enabling the shift from subsistence to commercial agriculture.
The future is becoming dangerous because increasingly, government policies and investors are driving the grand concept of a country awaiting the Big Bang take-off by turning the existing multinodal urban sector into centralised industrial corridors punctuated with lumps of smart macro cities and satellites. This is assumed to be one way of beating a modern identity into shape. By investing the international currency of debt in new urban infrastructure, the government hopes that national income will rise and a smart, supranational identity will emerge to show off to the developed world. It seems difficult for the planners to realise that since the
beginning of the last century, despite the spectacular growth of urban populations, the poorest half of the world has received just $1 \%$ of the total increase in global wealth. Simply complying with investor directives and accelerating urbanisation to zoom ahead seems to be illusory and dangerous because that is the way to debt slavery. Over the last two decades, the state-led production of space, as part of worlding cities, has introduced new structural violence into the lives of poor groups.
The three main mechanisms have been adopted to produce spaceinfrastructure and mega-projects, redevelopment, and creating exception regimes for "slums" are applicable to the implementation of the Mission. The state that enacts structural violence through worlding processes is strong in its bid to open up new spaces for capital accumulation that integrate specific economic circuits, classes and groups "globally," while weak in its responsibility to protect and strengthen the life chances and claims of poor groups/spaces, is also one that can be used as a framework to understand how Smart Cities might not translate into inclusion. In fact, it does exactly the opposite. The urban local bodies (ULBs) seem to have been severely compromised by the Smart City Mission. Source:
https://www.epw.in/engage/article/if-smart-cities-exclude-the-vulnerable-who-are-they-smart-for
141. According to the passage, what's so smart about the Smart Cities?
A. It emerged as an instrument to make cities more competitive in economic terms.
B. It uses information and communication technologies to increase operational efficiency, share
information with the public and improve both the quality of government services and citizen welfare.
C. It is extremely attractive, especially
to the middle and upper classes.
D. It directly addresses the opportunities provided by renewable off-grid production to increase employment and diversification in the rural economy, with a particular focus on India's rural youth.
E. None of these.
142. Which of the following statement is true with reference to the report released by the Housing and Land Rights Network (HRLN)?
A. It states that the goal of several cities to become 'slum-free' without including concomitant indicators to assess the realisation of this target could promote evictions and the destruction of low-income settlements under the guise of creating 'cities without slums.'
B. It retorted a question, who are these smart cities meant to benefit?
C. It states that the Smart Cities Mission seeks to cover nearly 10 crore population in 100 cities; but it suffers from a lack of consultation, which has resulted in eviction, displacement of the poor and farmers.
D. It pointed to the lack of an integrated approach and focus on marginalised communities in the Smart Cities Mission and called for a more inclusive approach.
$E$. It states that at least six homes are destroyed and 30 people forcibly evicted each day in India as authorities modernise cities and build highways.
143. Which of the following statement cannot be deciphered from the third paragraph of the passage?
A. The new Indian urban landscape is being designed around grand concepts such as smart cities and exportoriented industrial corridors.
B. Despite the spectacular growth of urban populations, global wealth inequality has certainly been high and rising.
C. In our desire to be global, we are emulating outdated models of urbanisation and economic progress borrowed from nations that have grown rich through questionable means. D. Simply complying with outdated models of urbanisation and creditism is a way to debt slavery.
$E$. The government hopes that foreign debt in new urban infrastructure will help in the rise of national income and an emergence of a smart, supranational identity.
144. How does the smart city proposal actually do little to streamline any policies towards inclusion?
I. By often perpetuating the very issue that they aim to solve.
II. The nature of the state that enacts structural violence through worlding processes is simultaneously "strong" and "weak."
III. By being weak in its responsibility to protect and strengthen the life chances and claims of poor groups/spaces.
IV. The urban local bodies (ULBs) have been severely compromised.
A. Both II and III
B. Both III and IV
C. I, III, IV
D. II, III, IV
E. All of these
145. Which of the following statements cannot be inferred from the passage?
I. Infrastructure and mega-projects and revitalisation are the main mechanisms that the Smart Cities Mission claim for its implementation.
II. The state-led production of space bids to open up new spaces for capital accumulation.
III. Urbanisation has introduced new structural violence into the lives of poor groups.
A. Only I
B. Only II
C. Only III
D. Both I and III
E. Both I and II

## Solutions

1. Ans. D.
$4.7+0.6=5.3$
$5.3+1.2=6.5$
$6.5+1.8=8.3$
$8.3+2.4=10.7$
2. Ans. B.
$7 * 1-1=6$,
$6 * 2-2=10$,
$10 * 3-3=27$
$27 * 4-4=104$,
$104 * 5-5=515$
3. Ans. B.
$11 * 0.5+0.5=6$
6*1+1 = 7
$7 * 2+2=16$
$16 * 4+4=68$
So, next number will be
$68 * 8+8=552$
4. Ans. A.

The given series shows the pattern
$13=6 * 2+1$
$38=13 * 3-1$
? $=38 * 4+1=153$
$764=153 * 5-1$
$4585=764 * 6+1$
5. Ans. E.

This series following this pattern,
$\times 1+2, \times 2+3, \times 3+4, \times 4+5, \times 5+6$
$=273 \times 5+6=1371$
6. Ans. E.
$11200 \div 5=2240$
$2240 \div 4=560$
$560 \div 5=112$
$112 \div 4=28$
$28 \div 5=5.6$
7. Ans. C.

According to the given equations:
I. $x^{2}-9 x+18=0$
$x^{2}-3 x-6 x+18=0=0$
$x(x-3)-6(x-3)=0$
$(x-3)(x-6)=0$
$x=3,6$
II. $y^{2}-11 y+18=0$
$y^{2}-9 y-2 y+18=0$
$y(y-9)-2(y-9)=0$
$(y-2)(y-9)=0$
$y=2,9$
After comparison of both equations, the conclusion is $x=y$ or no relation is obtained So option (c) is the correct answer.
8. Ans. B.
I. $x^{2}-16 x+63=0$
or, $x^{2}-9 x-7 x+63=0$
or, $x(x-9)-7(x-9)=0$
or, $(x-7)(x-9)=0$
$\therefore \mathrm{x}=7,9$
II. $\mathrm{y}^{2}-2 \mathrm{y}-35=0$
or, $\mathrm{y}^{2}-7 \mathrm{y}+5 \mathrm{y}-35=0$
or, $\mathrm{y}(\mathrm{y}-7)+5(\mathrm{y}-7)=0$
or, $(y-7)(y+5)=0$
$\therefore \mathrm{y}=7,-5$
Hence, $x \geq y$
9. Ans. D.
$x^{2}+x-42=0$
$x^{2}+7 x-6 x-42=0$
$x(x+7)-6(x+7)=0$
$(x+7)(x-6)=0$
$(x+7)=0$ or $(x-6)=0$
$x=-7$ or $x=6$
$y^{2}-13 y+42=0$
$y^{2}-7 y-6 y+42=0$
$y(y-7)-6(y-7)=0$
$(y-7)(y-6)=0$
$(y-7)=0$ or $(y-6)=0$
$y=7$ or $y=6$
$x \leq y$
10. Ans. C.

From I : $x^{2}-7 x+6=0$
$(x-6)(x-1)=0$
Thus, $x=1$ or 6
17. Ans. D.

Let the number of more pens need to be manufactured by Company $S$ in the year 2009 to make the ratio of the number of pens manufactured by Company $S$ to that of those manufactured by Company U in the year 2009 as 54:83 be 'a'.
Number of pen made by Company $S$ in the year $2009=26.5$ crores
Number of pen made by Company $U$ in the
year $2009=41.5$ crores
$\therefore\left(\frac{26.5+a}{41.5}\right)=\frac{54}{83}$
$\Rightarrow 2199.5+83 a=2241$
$\Rightarrow 83 \mathrm{a}=41.5$
$\Rightarrow a=0.5$ crores $=5000000$
18. Ans. D.
total sweets
$=80 \times \frac{15}{100} \times 80+5 \times \frac{25}{100} \times 80=1,060$
19. Ans. D.

On opening the three pipes simultaneously,
Part of tank filled in 1 hour $=\frac{1}{18}+\frac{1}{15}-\frac{1}{45}$
$=\frac{5+6-2}{90}=\frac{9}{90}=\frac{1}{10}$
Required Time $=10$ minutes
20. Ans. C.

Let the $\mathrm{CP}=100 \mathrm{X}$
$M P=140 X$
Difference between Discount \% is $10-5=5 \%$ Difference between the discount given=
$(140 X) *(5 / 100)=7 X$
This means, $7 X \equiv 35$
$\rightarrow 100 \mathrm{X} \equiv 500$
Hence the $C P=500$
Then, original MP=500× $\frac{140}{100}=700$
After giving 30\%, the selling price $=700$
$\times \frac{70}{100}=490$
$\therefore$ there is a loss of $500-490=$ Rs. 10
Loss $\%=\frac{10}{500} \times 100=2 \%$
21. Ans. B.

Let the capacity of the stall be $x$ and the capacity of the balcony be $y$.
Now, $x+y=3000$
Also, $100 x+150 y=400000$
i.e., $x+1.5 y=4000$ $\qquad$
(ii)-(i) gives
$0.5 y=1000$, i.e., $y=2000$
$\therefore \mathrm{x}=1000$.
Hence, option is b.
22. Ans. E.

The ratio of incomes of $A$ and $B$ are 5:9
Let their incomes be $5 x: 9 x$ and their savings be 3 y : 5 y
B saving $=9 x * 2 / 3$
=6x
So $6 x=5 y$
$x=5 y / 6$
The ratio of their expenditures
( $5 x-3 y$ ): ( $9 x-5 y$ )
Substituting the value of $x$ in the above equation we get
=7y:15y
=7:15
23. Ans. C.

From the graph,
The no. of refrigerators sold in $2001=600$
The no. of washing machines sold in $2001=$ 380
So, the total sale in $2001=600+380=980$ And,
The no. of refrigerators sold in $2005=540$
The no. of washing machines sold in $2005=$ 500
So, the total sale in $2005=540+500=$ 1040
$\therefore$ The required ratio $=980: 1040=49: 52$.
24. Ans. B.

From the graph,

| Year | No. of refrigerators <br> sold $(A)$ | No. of washing <br> machines sold $(B)$ | Total sale <br> $=A+B$ |
| :--- | :--- | :--- | :--- |
| 2001 | 600 | 380 | $600+380=980$ |
| 2002 | 580 | 420 | $580+420=1000$ |
| 2003 | 460 | 475 | $460+475=935$ |
| 2004 | 525 | 445 | $525+445=970$ |
| 2005 | 540 | 500 | $540+500=1040$ |
| 2006 | 535 | 480 | $535+480=1015$ |

$\therefore$ We can clearly observe that the total sale was the second highest in 2006.
25. Ans. C.

From the graph,

| Year | No. of refrigerators <br> sold $(A)$ | No. of washing <br> machines sold (B) | Total sale <br> $=A+B$ |
| :--- | :--- | :--- | :--- |
| 2001 | 600 | 380 | $600+380=980$ |
| 2002 | 580 | 420 | $580+420=1000$ |
| 2003 | 460 | 475 | $460+475=935$ |
| 2004 | 525 | 445 | $525+445=970$ |
| 2005 | 540 | 500 | $540+500=1040$ |
| 2006 | 535 | 480 | $535+480=1015$ |

$\therefore$ We can clearly say that for 3 years, the total sale was less than 1000.
26. Ans. A.

From the graph,
The no. of washing machines sold in $2003=$ 475
The total no. of washing machines sold in the given years
$=380+420+475+445+500+480=$ 2700
So, the average no. of washing machines sold in the given years $=2700 / 6=450$.
$\therefore$ The required difference $=475-450=25$.
27. Ans. D.

From the graph,
The no. of refrigerators sold in $2001=600$
The total no. of refrigerators sold in the given years
$=600+580+460+525+540+535=$ 3240
Then, the average no. of refrigerators sold in the given years
= 3240/6 = 540
$\therefore$ The required percentage $=[(540 / 600) \times$ $100] \%=90 \%$.
28. Ans. C.

Let a Rat takes W days \& a Mouse takes C days to eat up 50 kg rice alone.
6 rats together can eat up a stock of 100 kg rice in = 15 days
So, 6 rats together can eat up a stock of 50 kg rice in $=7.5$ days
Now, Let 10 mice takes ' $x$ ' days to eat up the stock
ATQ
$(6 \mathrm{~W}+10 \mathrm{C}) \times 5=6 \mathrm{~W} \times 7.5 \Rightarrow 10 \mathrm{C}=3 \mathrm{~W}$
So, $6 \mathrm{~W} \times 7.5=10 \mathrm{C} \times \mathrm{x} \Rightarrow 20 \mathrm{C} \times 7.5=10 \mathrm{C}$ $x x \Rightarrow x=15$ days
29. Ans. D.

Cost price $=$ Rs. 800
Loss = 8\%
Selling price $=800-(800 * 8 / 100)$
=Rs. 800-64
= Rs. 736
Reduction 5\% = 736 * 5/100
= Rs. 36.80
Reduced Selling Price $=736-36.80$
= Rs. 699.20
Selling price $=$ Rs. $699.20 \approx 700$
30. Ans. D.

Let present ages of man and wife are $4 x$ and $3 x$ years respectively.
$\therefore \frac{4 x+4}{3 x+4}=\frac{9}{7}$
$\Rightarrow X=8$ years
Present age of man $=32$ years
Present age of wife $=24$ years
Now, let 'y' years ago they were married
$\therefore \frac{32-y}{24-y}=\frac{5}{3}$
$\Rightarrow 96-3 y=120-5 y$
$\Rightarrow Y=12$ years
31. Ans. A.

From the pie-chart,
The number of items produced by company A = 3960
Percentage of items produced by company A $=11$
So, the total no. of items produced by six companies together
$=3960 \times(100 / 11)=36000$
Percentage of items produced by company C = 5
Percentage of items produced by company F $=27$
So, the total no. of items produced by company C and F
$=36000 \times(5+27) \%=36000 \times(32 / 100)$
$=11520$
$\therefore$ The total no. of items produced by
company A, C, and F
$=11520+3960=15480$
32. Ans. C.

From the pie-chart,
The no. of items produced by company $\mathrm{A}=$ 3960
Percentage of items produced by company A = 11
So, the total no. of items produced by six companies together
$=3960 \times(100 / 11)=36000$
Percentage of items produced by company B = 15
Percentage of items produced by company E $=24$
$\therefore$ The required difference $=36000 \times(24-$
$15) \%=36000 \times(9 / 100)=3240$
33. Ans. B.

From the pie-chart,
The no. of items produced by company $\mathrm{A}=$ 3960
Percentage of items produced by company A $=11$
So, the total no. of items produced by six companies together
$=3960 \times(100 / 11)=36000$
Percentage of items produced by company C $=5$
So, the no. of items produced by company C $=36000 \times(5 / 100)=1800$
Percentage of items produced by company D = 18
So, the no. of items produced by company D $=36000 \times(18 / 100)=6480$
$17 \%$ and $25 \%$ items are defective for the company C and D respectively.
Then, the no. of defective items produced by company C $=1800 \times(17 / 100)=306$
And, the no. of defective items produced by company $D=6480 \times(25 / 100)=1620$
$\therefore$ The required ratio $=306: 1620=17: 90$. 34. Ans. D.

From the pie-chart,
The no. of items produced by company $\mathrm{A}=$ 3960
Percentage of items produced by company A $=11$
So, the total no. of items produced by six companies together
$=3960 \times(100 / 11)=36000$
Then, the average no. of items produced by all companies $=36000 / 6=6000$
The no. of items produced by company $\mathrm{E}=$ 24
So, the no. of items produced by company E $=36000 \times(24 / 100)=8640$
$\therefore$ The required percentage $=[(8640 / 6000) \times$ $100] \%=144 \%$.
35. Ans. B.

From the pie-chart,
Total pie-chart = 100\%
Total central angle of the pie-chart $=360^{\circ}$
Percentage of items produced by company $F$
$=27$
$\therefore$ The central angle corresponds to the no. of items produced by company F
$=\left(360{ }^{\circ} / 100\right) \times 27=97.2^{\circ}$

1 Degree $=60 \mathrm{~min}$
0.1 degree $=6 \mathrm{~min}$
0.2 degree $=12 \mathrm{~min}$
therefore,
$97.2^{\circ}=97^{\circ} 12^{\prime}$.
36. Ans. D.

Let, A's investment $=2 x$
B's investment $=3 x$
C's investment $=4 \mathrm{x}$
Let, $A^{\prime}$ s profit $=4 \mathrm{y}$
B's profit $=3 y$
C's profit $=2 y$
Let, Time of investment of $A=a$
Time of investment of $B=b$
Time of investment of $C=c$
According to problem,
$\Rightarrow 2 x \times a=4 y$
$\Rightarrow a=2 y / x$
According to problem,
$\Rightarrow 3 x \times b=3 y$
$\Rightarrow \mathrm{b}=\mathrm{y} / \mathrm{x}$
According to problem,
$\Rightarrow 4 \mathrm{x} \times \mathrm{c}=2 \mathrm{y}$
$\Rightarrow c=y / 2 x$
$\therefore$ ratio of time for which the capital has been invested,
$\Rightarrow a: b: c$
$\Rightarrow(2 y / x):(y / x):(y / 2 x)$
$\Rightarrow 2: 1: 1 / 2$
$\Rightarrow 4: 2: 1$
37. Ans. C.
S.P of Ist buffalo = Rs 12000

Profit = 20\%
C.P = S.P/(100+P\%) * 100
=> 12000/120 * 100
=> Rs 10000
S.P of 2nd buffalo = Rs 13000

Profit = 30\%
C. $P=13000 / 130 * 100$
=> Rs 10000
S.P of 3rd buffalo = Rs 31000
overall profit $=40 \%$
Total S.P $=12000+13000+31000$
=> Rs56000
Total C.P = 56000/140 * 100
=> Rs 40000
C.P of 3rd buffalo $=$ total C.P - [C.P of 1st
buffalo + C.P of 2nd buffalo]
$=>40000-[10000+10000]$
$=>$ Rs 20000
38. Ans. B.

Let the total salary $=100 x$
Investment on shopping $=13 \%$ of $100 x=$ 13x
Remaining amount $=(100 x-13 x)=87 x$
Investment on savings $=(9 / 29) * 87 x=27 x$
Difference of savings and shopping $=9800$
[Given]
$27 x-13 x=9800$
$14 x=9800$
$x=700$
$\therefore$ salary $=100 x=100 * 700=$ RS 70000
Remaining amount $=100 x$ - (Investment on
shopping + Investment on savings)
$=100 x-(13 x+27 x)=60 x$
Let the amount spent on house rent and
loans $=y$
$\therefore 40 \mathrm{x}-2 \mathrm{y}=4000$
$x=700$
$28000-2 y=4000$
$28000-4000=2 y$
So,
$y=24000 / 2=$ Rs 12000
39. Ans. D.
$\frac{x}{y}=\frac{9}{16}$
$\frac{x+10}{y+10}=\frac{2}{3}$
After solving $\mathrm{y}=32, \mathrm{x}=18$
40. Ans. C.

Let the speed of the boat is Sb and the speed of water is Sw
So, $\rightarrow$ Upstream Speed $=$ Sb-Sw
$15 \mathrm{Km} / \mathrm{hr}=20-\mathrm{Sw}$
$\mathrm{Sw}=5 \mathrm{Km} / \mathrm{hr}$
Downstream Speed $=25$
So, distance is $4 \times(20+5)=100 \mathrm{Km}$.
41. Ans. E.

Required difference $=266-165=101$
Males in company $=\frac{86}{19+86} \times 1650=860$
Females in company $=1650-860=790$
Males in designing department $=198$
Employees in quality department $=$
$\frac{18}{100} \times 1650=297$

Males in quality department $=$
$\frac{5}{9} \times 297=165$
Females in quality department $=132$
Males in maintenance department $=77$
Females in maintenance department $=$
$\frac{5}{7} \times 77=55$
Females in designing department $=165$
Males in HR department $=77 \times 2=154$
Males in production department $=860-$
$(198+165+77+154)=266$
Females in production department $=$
$\frac{19}{14} \times 266=361$
Females in HR department $=790-(132+$
$55+165+361)=77$
42. Ans. B.

Required percentage $=\frac{361}{790} \times 100 \approx 45.7 \%$
Males in company $=\frac{86}{19+86} \times 1650=860$
Females in company $=1650-860=790$
Males in designing department $=198$
Employees in quality department $=$
$\frac{18}{100} \times 1650=297$
Males in quality department $=$
$\frac{5}{9} \times 297=165$
Females in quality department $=132$
Males in maintenance department $=77$
Females in maintenance department $=$ $\frac{5}{7} \times 77=55$
Females in designing department $=165$
Males in HR department $=77 \times 2=154$
Males in production department $=860-$
$(198+165+77+154)=266$
Females in production department $=$
$\frac{19}{14} \times 266=361$
Females in HR department $=790-(132+$
$55+165+361)=77$
43. Ans. B.

Required percentage $=$
$\frac{165-55}{165} \times 100=66 \frac{2}{3} \%$
Males in company $=\frac{86}{19+86} \times 1650=860$

Females in company $=1650-860=790$
Males in designing department $=198$
Employees in quality department =
$\frac{18}{100} \times 1650=297$
Males in quality department $=$
$\frac{5}{9} \times 297=165$
Females in quality department $=132$
Males in maintenance department $=77$
Females in maintenance department =
$\frac{5}{7} \times 77=55$
Females in designing department $=165$
Males in HR department $=77^{\times} 2=154$
Males in production department $=860-$
$(198+165+77+154)=266$
Females in production department =
$\frac{19}{14} \times 266=361$
Females in HR department $=790-(132+$
$55+165+361)=77$
44. Ans. B.

No. of males in designing, quality and HR departments
$=198+165+154=517$
No. of females in Designing, maintenance
and production department
$=361+55+165=581$
Difference $=64$
Males in company $=\frac{86}{19+86} \times 1650=860$
Females in company $=1650-860=790$
Males in designing department $=198$
Employees in quality department $=$
$\frac{18}{100} \times 1650=297$
Males in quality department $=$
$\frac{5}{9} \times 297=165$
Females in quality department $=132$
Males in maintenance department $=77$ Females in maintenance department =
$\frac{5}{7} \times 77=55$
Females in designing department $=165$
Males in HR department $=77 \times 2=154$
Males in production department $=860-$
$(198+165+77+154)=266$

Females in production department $=$
$\frac{19}{14} \times 266=361$
Females in HR department $=790-(132+$
$55+165+361)=77$
45. Ans. B.

Females shifted from quality
Department $\frac{5}{12} \times 132=55$
Females in HR department $=77+55=132$
Makes in HR department $=154$
$\frac{154}{132}=1.17$
Males in company $=\frac{86}{19+86} \times 1650=860$
Females in company $=1650-860=790$
Males in designing department $=198$
Employees in quality department =
$\frac{18}{100} \times 1650=297$
Males in quality department $=$
$\frac{5}{9} \times 297=165$
Females in quality department $=132$
Males in maintenance department $=77$
Females in maintenance department $=$
$\frac{5}{7} \times 77=55$
Females in designing department $=165$
Males in HR department $=77^{\times} 2=154$
Males in production department $=860-$
$(198+165+77+154)=266$
Females in production department $=$
$\frac{19}{14} \times 266=361$
Females in HR department $=790-(132+$
$55+165+361)=77$
46. Ans. C.

Let the distance be $\times \mathrm{km}$.
$x / 60-(200-x) / 80=1$
$(4 x-600+3 x) / 240=1$
$7 x-600=240$
$X=120 \mathrm{~km}$.
47. Ans. C.

Acc to LCM method
P $30 \mathrm{Eff}(\mathrm{P})=6$
LCM $=180$
Q $36 \mathrm{Eff}(\mathrm{Q})=5$

Therefore,
$(5+6) * 5+5 *$ No of days Q works Alone $=$ 180
No of days Q works Alone $=25$
48. Ans. A.
$25 \%=1 / 4$

|  | Original | New |
| :--- | :--- | :--- |
| Price | 4 | 5 |
| cons. | $\underbrace{5}_{\text {diff. } 1 \text { unit }}$ |  |

So, original price $=\frac{160}{5}=32 \mathrm{Rs} . / \mathrm{kg}$.
49. Ans. A.

Required ratio $=\frac{\frac{2}{5} \times 20+\frac{3}{7} \times 28}{\frac{3}{5} \times 20+\frac{4}{7} \times 28}=\frac{20}{28}=\frac{5}{7}$
50. Ans. C.

Happy
Then, are 5 letters.
And number of words formed $=\frac{5!}{2!}$
$=\frac{5 \times 4 X 3 \times 2 \times 1}{2 X 1}=\frac{120}{2}=60$
51. Ans. C.

From the given question,

1. J sits on an extreme end of the line.
2. There are two persons between J and the one who likes Red.
3. The one who likes Yellow sits third to the right of M . I is on the immediate left of M .
The person who likes Pink sits second to the left of I.
4. The one who likes Blue is an immediate neighbour of the one who likes Yellow.
5. H sits second to the right of N , who likes neither Yellow nor Pink.
6. Only two persons sit between $K$ and the one who likes Red.
7. G and L are immediate neighbours and both of them do not like Yellow.
8. The one who likes Brown sits second to the left of G.
9. One of the immediate neighbours of $M$ likes Black.
10. The person who likes Orange sits second to the right of G .

| J | L | G | I | M | N | K | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | Pink | Green | Red | Orange | Black | Blue | Yellow |

52. Ans. D.

From the given question,

1. J sits on an extreme end of the line.
2. There are two persons between J and the one who likes Red.
3. The one who likes Yellow sits third to the right of $M$. I is on the immediate left of $M$.
The person who likes Pink sits second to the left of I .
4. The one who likes Blue is an immediate neighbour of the one who likes Yellow.
5. H sits second to the right of N , who likes neither Yellow nor Pink.
6. Only two persons sit between K and the one who likes Red.
7. $G$ and $L$ are immediate neighbours and both of them do not like Yellow.
8. The one who likes Brown sits second to the left of G.
9. One of the immediate neighbours of $M$ likes Black.
10. The person who likes Orange sits second to the right of G .

| J | L | G | I | M | N | K | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | Pink | Green | Red | Orange | Black | Blue | Yellow |

53. Ans. A.

From the given question,

1. J sits on an extreme end of the line.
2. There are two persons between J and the one who likes Red.
3. The one who likes Yellow sits third to the right of $M$. $I$ is on the immediate left of $M$. The person who likes Pink sits second to the left of $I$.
4. The one who likes Blue is an immediate neighbour of the one who likes Yellow.
5. H sits second to the right of N , who likes neither Yellow nor Pink.
6. Only two persons sit between K and the one who likes Red.
7. G and L are immediate neighbours and both of them do not like Yellow.
8. The one who likes Brown sits second to the left of G.
9. One of the immediate neighbours of $M$ likes Black.
10. The person who likes Orange sits second to the right of G .

| J | L | G | I | M | N | K | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | Pink | Green | Red | Orange | Black | Blue | Yellow |

54. Ans. B.

From the given question,

1. J sits on an extreme end of the line.
2. There are two persons between J and the one who likes Red.
3. The one who likes Yellow sits third to the right of $M$. I is on the immediate left of $M$. The person who likes Pink sits second to the left of $I$.
4. The one who likes Blue is an immediate neighbour of the one who likes Yellow.
5 . H sits second to the right of N , who likes neither Yellow nor Pink.
5. Only two persons sit between $K$ and the one who likes Red.
6. $G$ and $L$ are immediate neighbours and both of them do not like Yellow.
7. The one who likes Brown sits second to the left of G.
8. One of the immediate neighbours of $M$ likes Black.
9. The person who likes Orange sits second to the right of G .

| J | L | G | I | M | N | K | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | Pink | Green | Red | Orange | Black | Blue | Yellow |

55. Ans. C.

From the given question,

1. J sits on an extreme end of the line.
2. There are two persons between J and the one who likes Red.
3. The one who likes Yellow sits third to the right of $M$. I is on the immediate left of $M$. The person who likes Pink sits second to the left of $I$.
4. The one who likes Blue is an immediate neighbour of the one who likes Yellow.
5. H sits second to the right of N , who likes neither Yellow nor Pink.
6. Only two persons sit between K and the one who likes Red.
7. $G$ and $L$ are immediate neighbours and both of them do not like Yellow.
8. The one who likes Brown sits second to the left of $G$.
9. One of the immediate neighbours of $M$ likes Black.
10. The person who likes Orange sits second to the right of G .

| J | L | G | I | M | N | K | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | Pink | Green | Red | Orange | Black | Blue | Yellow |

56. Ans. D.

The least possible Venn diagram for the given statements is as follows:-


## Conclusions:

1) Some ties are not cloths. (It is sure, hence true)
2) Some pins are not shoes. (It is sure, hence true)
Hence, only conclusion both is true.
57. Ans. C.

The least possible Venn diagram for the given statements is as follows:-


Conclusions:

1) Some hike is not amazon. (False)
2) All hike can be amazon (It is a positive possibility, hence true)
Hence, only conclusion 2 is true.
58. Ans. D.

The least possible Venn diagram for the given statements is as follows:-


Conclusions:

1) Some cottage can be house. (It is a positive possibility, hence true)
2) All bungalow can be cottage (It is a positive possibility, hence true)
Hence, only conclusion 1 and 2 are true.
59. Ans. C.

The least possible Venn diagram for the given statements is as follows:-


## Conclusions:

1) Some $Z$ are $Q$. (it is not sure, hence false)
2) All $Z$ are not $Q$ can be a possibility. (it can be possible hence true)
Hence, only conclusion 2 is true. 60. Ans. A.

The least possible Venn diagram for the given statements is as follows:-


Conclusions:

1) Some sugar is not wheat. (It is not sure, hence false)
2) No field is maze. (It is not sure, hence false)
Hence, No conclusion is true.
61. Ans. E.

In the given question we can see that direction sense is also necessary so first of all we have to make a direction sense diagram:


1) Ram is facing to the southwest direction and he goes to Delhi.
2) Ram is sitting in front of the one who is going to Jaipur.
3) Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south.
4) Ramu is facing north - west direction and likes to go Noida. Rohit is going to Bangalore.

5) Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu.
6) Rupesh is going to Mumbai and is sitting opposite to one who is facing west.
7) Raju is facing north - east direction.
8) The person who sits between the one who likes to go kota and Delhi, is going to Mathura.

62. Ans. C.

In the given question we can see that direction sense is also necessary so first of all we have to make a direction sense diagram:


1) Ram is facing to the southwest direction and he goes to Delhi.
2) Ram is sitting in front of the one who is going to Jaipur.
3) Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south.
4) Ramu is facing north - west direction and likes to go Noida. Rohit is going to Bangalore.

5) Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu.
6) Rupesh is going to Mumbai and is sitting opposite to one who is facing west.
7) Raju is facing north - east direction.
8) The person who sits between the one who likes to go kota and Delhi, is going to Mathura.

63. Ans. E.

In the given question we can see that direction sense is also necessary so first of all we have to make a direction sense diagram:


1) Ram is facing to the southwest direction and he goes to Delhi.
2) Ram is sitting in front of the one who is going to Jaipur.
3) Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south.
4) Ramu is facing north - west direction and likes to go Noida. Rohit is going to

Bangalore.

5) Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu.
6) Rupesh is going to Mumbai and is sitting opposite to one who is facing west.
7) Raju is facing north - east direction.
8) The person who sits between the one who likes to go kota and Delhi, is going to Mathura.

64. Ans. E.

In the given question we can see that direction sense is also necessary so first of all we have to make a direction sense diagram:


1) Ram is facing to the southwest direction and he goes to Delhi.
2) Ram is sitting in front of the one who is going to Jaipur.
3) Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south.
4) Ramu is facing north - west direction and likes to go Noida. Rohit is going to Bangalore.

5) Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu.
6) Rupesh is going to Mumbai and is sitting opposite to one who is facing west.
7) Raju is facing north - east direction.
8) The person who sits between the one who likes to go kota and Delhi, is going to Mathura.

65. Ans. D.

In the given question we can see that direction sense is also necessary so first of all we have to make a direction sense diagram:


1) Ram is facing to the southwest direction and he goes to Delhi.
2) Ram is sitting in front of the one who is going to Jaipur.
3) Ramesh is sitting opposite to Rama, who does not go to Gurugram and facing south.
4) Ramu is facing north - west direction and likes to go Noida. Rohit is going to Bangalore.

5) Raja, who is going to kota is not facing east direction and he is not sitting between Ram and Ramu.
6) Rupesh is going to Mumbai and is sitting opposite to one who is facing west.
7) Raju is facing north - east direction.
8) The person who sits between the one who likes to go kota and Delhi, is going to
Mathura.

66. Ans. A.


As per the given diagram, it is clear that $\mathbf{H}$ is a grandson of $B$.


As per the diagram, it is clear that $\mathbf{F}$ is the son-in-law of $\mathbf{A}$.
68. Ans. C.


As per the given diagram, $C$ is the sister-inlaw of $F$ 69. Ans. C.


Code for 'each' is either 'hus' or 'pzy' Code for 'problems' is either 'hlt' or 'mlp' Code for 'facing' is 'ngi'
Code for 'challenge' is 'riy'
Hence possible code for 'problems facing each challenge' is either 'mlp ngi hus riy' or 'hlt ngi pzy riy'.
70. Ans. A.

Code for 'rts' is either 'on' or 'standard' Code for 'uqp' is either 'is' or 'long' Code for 'nop' is 'day'
Hence possible code for 'rts uqp nop' is either 'on day is' or 'standard long day' but here only one option is available 'on day is' so it is the answer.
71. Ans. E.

Code for 'health' is either 'mlp' or 'hlt'
Code for 'problems' is either 'mlp' or 'hlt'
Code for 'rise' is 'rtv'
Code for standard is either 'sa' or 'rts' But code for 'health problems rise standard' is 'hlt mlp rtv rts' above given so we can assure that 'standard' code is for 'rts' Hence possible code for 'standard' is 'rts'.
72. Ans. D.

Code for 'problems' is either 'mlp' or 'hlt'.
73. Ans. C.

Code for 'environmental challenge' is 'tgt riy'.
74. Ans. C.

## Order of clues to be used:

1) Only three persons visit the site between A and C.
2) $C$ visits immediately before $G$ and $B$ visits immediately after A.
2 cases:
Case 1: A B _ _ C G or
Case 2: $\mathrm{CB}_{-}^{--}$A B
But case 1 will be eliminated: 3) B visits the site in the month with more than 30 days. Next, we have:
3) Only 2 persons visit the site between $G$ and E .
4) E visits the site before G .

Case 2: E_C G _ A B
Next, we have:
6) E does not visit the site on 18th of any month.
7) There are two persons who visit the site between $F$ and $H$.
8) F visits the site before H and does not visit in the month with 31 days.
9) A does not visit in a month with 30 days and $B$ does not visit the site before or after H.
10) One person visits between $B$ and $D$. This is our final case which follows all the conditions.
10 FEB--E
18 FEB--F
10 APR--C
18 APR--G
10 JUL--H
18 JUL--D
10 AUG--A
18 AUG-B
75. Ans. C.

## Order of clues to be used:

1) Only three persons visit the site between $A$ and $C$.
2) $C$ visits immediately before $G$ and $B$ visits immediately after A.
2 cases:
Case 1: A B _ _ C G or
Case 2: C G _ _ A B

But case 1 will be eliminated: 3) B visits the site in the month with more than 30 days. Next, we have:
4) Only 2 persons visit the site between G and E .
5) E visits the site before G .

Case 2: E_C G _ A B
Next, we have:
6) E does not visit the site on 18th of any month.
7) There are two persons who visit the site between $F$ and $H$.
8) F visits the site before H and does not visit in the month with 31 days.
9) A does not visit in a month with 30 days and $B$ does not visit the site before or after H.
10) One person visits between $B$ and $D$.

This is our final case which follows all the conditions.
10 FEB--E
18 FEB--F
10 APR--C
18 APR--G
10 JUL--H
18 JUL--D
10 AUG--A
18 AUG-B
76. Ans. B.

Order of clues to be used:

1) Only three persons visit the site between A and C.
2) $C$ visits immediately before $G$ and $B$ visits immediately after A.
2 cases:
Case 1: A B __ C G or
Case 2: C G __ A B
But case 1 will be eliminated: 3) B visits the site in the month with more than 30 days. Next, we have:
3) Only 2 persons visit the site between G and E .
4) E visits the site before $G$.

Case 2: E_C G _ A B
Next, we have:
6) E does not visit the site on 18th of any month.
7) There are two persons who visit the site between F and H .
8) F visits the site before $H$ and does not visit in the month with 31 days.
9) A does not visit in a month with 30 days and $B$ does not visit the site before or after H.
10) One person visits between $B$ and $D$.

This is our final case which follows all the conditions.
10 FEB--E
18 FEB--F
10 APR--C
18 APR--G
10 JUL--H
18 JUL--D
10 AUG--A
18 AUG-B
77. Ans. D.

## Order of clues to be used:

1) Only three persons visit the site between A and C.
2) $C$ visits immediately before $G$ and $B$ visits immediately after $A$.
2 cases:
Case 1: A B __ C G or
Case 2: C G__AB
But case 1 will be eliminated: 3) $B$ visits the site in the month with more than 30 days. Next, we have:
3) Only 2 persons visit the site between G and E .
4) $E$ visits the site before $G$.

Case 2: E_C G _ _ AB
Next, we have:
6) E does not visit the site on 18th of any month.
7) There are two persons who visit the site between F and H .
8) F visits the site before H and does not visit in the month with 31 days.
9) A does not visit in a month with 30 days and $B$ does not visit the site before or after H.
10) One person visits between $B$ and $D$.

This is our final case which follows all the conditions.
10 FEB--E
18 FEB--F
10 APR--C

18 APR--G
10 JUL--H
18 JUL--D
10 AUG--A
18 AUG-B
78. Ans. A.

Order of clues to be used:

1) Only three persons visit the site between $A$ and $C$.
2) $C$ visits immediately before $G$ and $B$ visits immediately after A.
2 cases:
Case 1: $\mathrm{A} \mathrm{B}_{-} \mathrm{C}$ G or
Case 2: $\mathrm{C}_{1}$ _ $\mathrm{A} B$
But case 1 will be eliminated: 3) B visits the site in the month with more than 30 days.
Next, we have:
3) Only 2 persons visit the site between G and $E$.
4) $E$ visits the site before $G$.

Case 2: E_C G _ _ A B
Next, we have:
6) E does not visit the site on 18 th of any month.
7) There are two persons who visit the site between $F$ and $H$.
8) F visits the site before H and does not visit in the month with 31 days.
9) A does not visit in a month with 30 days and $B$ does not visit the site before or after H.
10) One person visits between $B$ and $D$.

This is our final case which follows all the conditions.
10 FEB--E
18 FEB--F
10 APR--C
18 APR--G
10 JUL--H
18 JUL--D
10 AUG--A
79. Ans. A.

As per the question,
Greene > Bolt ( 9.68 sec ) > Powell > Blake (9.98 sec) > Carter > Gatlin

Speed of Greene is greater than Bolt so 100/9.68 i.e $10.33 \mathrm{~m} / \mathrm{sec}$
Hence, $11 \mathrm{~m} / \mathrm{sec}$ is the answer.
80. Ans. B.

As per the question,
Greene > Bolt (9.68 sec) > Powell > Blake
(9.98 sec) > Carter > Gatlin
81. Ans. E.

As per the question,
Greene > Bolt ( 9.68 sec ) > Powell > Blake
( 9.98 sec ) > Carter > Gatlin
Speed of Blake $=100 / 9.98=10.02 \mathrm{~m} / \mathrm{sec}$
So Either Carter or Gatlin has the speed of 9 $\mathrm{m} / \mathrm{sec}$.
82. Ans. D.

Boxes: P, Q, R, S, T, U, V, W and X

1) There are 5 boxes between box $P$ and box R.
2) Box T is kept immediately above R.

| Case-1 | Case-2 |
| :--- | :--- |
|  | $T$ |
| $P$ | $R$ |
|  |  |
|  |  |
|  |  |
|  |  |
| $T$ |  |
| $R$ | $P$ |

3) 3 boxes are kept between box $T$ and box S.

| Case-1.1 | Case-1.2 | Case-2.1 | Case-2.2 |
| :--- | :--- | :--- | :--- |
|  |  | T | S |
| P | P | R |  |
| S |  |  |  |
|  |  |  |  |
|  |  | S | T |
|  |  |  | R |
| T | T |  |  |
| R | R | P |  |
|  |  |  |  |
|  |  |  |  |
|  | S |  |  |
|  |  |  | $P$ |

4) The number of boxes between $P$ and $S$ is same as the number of boxes between $T$ and Q.
5) There are less than 13 boxes kept in the stack.

| Case-1.1 | Case-2.1 (A) | Case-2.1 (B) |
| :--- | :--- | :--- |
|  | Q |  |
|  |  |  |
|  |  |  |
|  | T | T |
| P | R | R |
| S |  |  |
|  |  | Q |
|  | S | S |
| Q |  |  |
| T |  | P |
| R | P |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(Here case - 2.2 gets eliminated as here we get more than 13 boxes)
(Similarly, case 1.2 gets eliminated as here we get 13 boxes, but we want less than 13 boxes)
6) Box $U$ is kept below box $Q$ but above $P$. (here case - 1.1 will gets eliminated)
7) There is only one box kept between $U$ and V.
(Here case 2.1 (B) will gets eliminated)

| Case-2.1 (A) |
| :--- |
| Q |
|  |
|  |
| $T$ |
| $R$ |
|  |
| $\mathrm{U} / \mathrm{V}$ |
| S |
| $\mathrm{V} / \mathrm{U}$ |
|  |
| P |

8) Box $W$ is kept somewhere above $X$.
9) There are as many boxes kept between $V$ and $S$ as there are between $Q$ and $Y$
(as there is no box kept between V and S therefore there will not be any box between $Q$ and $Y$ )
10) Box $Z$ is kept somewhere above $R$.
11) Box $Y$ is kept below $Q$.

| $\mathbf{Q}$ |
| :--- |
| $\mathbf{Y}$ |
| $\mathbf{Z}$ |
| T |
| R |
| W |
| $\mathrm{U} / \mathrm{V}$ |
| S |
| $\mathrm{V} / \mathrm{U}$ |
| X |
| P |

Hence, box W is sixth from the bottom in the given arrangement.
83. Ans. A.

Boxes: P, Q, R, S, T, U, V, W and X

1) There are 5 boxes between box $P$ and box
R.
2) Box $T$ is kept immediately above $R$.

| Case-1 | Case-2 |
| :--- | :--- |
|  | T |
| P | R |
|  |  |
|  |  |
|  |  |
|  |  |
| T |  |
| R | P |

3) 3 boxes are kept between box $T$ and box S.

| Case-1.1 | Case-1.2 | Case-2.1 | Case-2.2 |
| :--- | :--- | :--- | :--- |
|  |  | T | S |
| P | P | R |  |
| S |  |  |  |
|  |  |  |  |
|  |  | S | T |
|  |  |  | R |
| T | T | P |  |
| R | R |  |  |
|  |  |  |  |
|  |  |  |  |
|  | S |  | P |
|  |  |  |  |

4) The number of boxes between $P$ and $S$ is same as the number of boxes between $T$ and Q.
5) There are less than 13 boxes kept in the stack.

| Case-1.1 | Case-2.1 (A) | Case-2.1 (B) |
| :--- | :--- | :--- |
|  | Q |  |
|  |  |  |
|  |  |  |
|  | T | T |
| P | R | R |
| S |  |  |
|  |  | Q |
|  | S | S |
| Q |  |  |
| T |  | P |
| R | P |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(Here case -2.2 gets eliminated as here we get more than 13 boxes)
(Similarly, case 1.2 gets eliminated as here we get 13 boxes, but we want less than 13 boxes)
6) Box $U$ is kept below box $Q$ but above $P$. (here case -1.1 will gets eliminated)
7) There is only one box kept between $U$ and V .
(Here case 2.1 ( $B$ ) will gets eliminated)

8) Box W is kept somewhere above $X$.
9) There are as many boxes kept between $V$ and $S$ as there are between $Q$ and $Y$ (as there is no box kept between V and S
therefore there will not be any box between $Q$ and $Y$ )
10) Box $Z$ is kept somewhere above $R$.
11) Box $Y$ is kept below $Q$.


Hence, U and V are kept immediately above and below box Q.
84. Ans. C.

Boxes: P, Q, R, S, T, U, V, W and X

1) There are 5 boxes between box $P$ and box
R.
2) Box $T$ is kept immediately above R.

| Case - 1 | Case - 2 |
| :--- | :--- |
|  | $T$ |
| $P$ | $R$ |
|  |  |
|  |  |
|  |  |
|  |  |
| $T$ |  |
| $R$ | $P$ |

3) 3 boxes are kept between box $T$ and box
S.

| Case-1.1 | Case-1.2 | Case-2.1 | Case-2.2 |
| :--- | :--- | :--- | :--- |
|  |  | T | S |
| P | P | R |  |
| S |  |  |  |
|  |  |  |  |
|  |  | S | T |
|  |  |  | R |
| T | T |  |  |
| R | R | P |  |
|  |  |  |  |
|  |  |  |  |
|  | S |  |  |
|  |  |  | P |

4) The number of boxes between $P$ and $S$ is same as the number of boxes between $T$ and Q.
5) There are less than 13 boxes kept in the stack.

| Case-1.1 | Case-2.1 (A) | Case-2.1 (B) |
| :--- | :--- | :--- |
|  | Q |  |
|  |  |  |
|  |  |  |
|  | T | T |
| P | R | R |
| S |  |  |
|  |  | Q |
|  | S | S |
| Q |  |  |
| T |  |  |
| R | P | P |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(Here case - 2.2 gets eliminated as here we get more than 13 boxes)
(Similarly, case 1.2 gets eliminated as here we get 13 boxes, but we want less than 13 boxes)
6) Box $U$ is kept below box $Q$ but above $P$. (here case - 1.1 will gets eliminated)
7) There is only one box kept between $U$ and V.
(Here case 2.1 (B) will gets eliminated)

8) Box $W$ is kept somewhere above $X$.
9) There are as many boxes kept between V and $S$ as there are between $Q$ and $Y$
(as there is no box kept between V and S therefore there will not be any box between $Q$ and $Y$ )
10) Box $Z$ is kept somewhere above $R$.
11) Box $Y$ is kept below $Q$.

| $\mathbf{Q}$ |
| :--- |
| $\mathbf{Y}$ |
| $\mathbf{Z}$ |
| $T$ |
| $R$ |
| $W$ |
| $\mathrm{U} / \mathrm{V}$ |
| S |
| $\mathrm{V} / \mathrm{U}$ |
| X |
| P |

Box $X$ is kept immediately above $P$. Hence there is no box between $X$ and $P$.
85. Ans. C.

Boxes: P, Q, R, S, T, U, V, W and X

1) There are 5 boxes between box $P$ and box R.
2) Box $T$ is kept immediately above $R$.

| Case-1 | Case-2 |
| :--- | :--- |
|  | $T$ |
| $P$ | $R$ |
|  |  |
|  |  |
|  |  |
|  |  |
| $T$ |  |
| $R$ | $P$ |

3) 3 boxes are kept between box $T$ and box S.

| Case-1.1 | Case-1.2 | Case-2.1 | Case-2.2 |
| :--- | :--- | :--- | :--- |
|  |  | T | S |
| P | P | R |  |
| S |  |  |  |
|  |  |  |  |
|  |  | S | T |
|  |  |  | R |
| T | T |  |  |
| R | R | P |  |
|  |  |  |  |
|  |  |  |  |
|  | S |  |  |
|  |  |  | P |

4) The number of boxes between $P$ and $S$ is same as the number of boxes between $T$ and Q.
5) There are less than 13 boxes kept in the stack.

| Case-1.1 | Case-2.1 (A) | Case-2.1 (B) |
| :--- | :--- | :--- |
|  | Q |  |
|  |  |  |
|  |  |  |
|  | T | T |
| $P$ | $R$ | $R$ |
| S |  | Q |
|  |  | S |
|  | S |  |
| Q |  |  |
| T |  |  |
| R | P |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(Here case -2.2 gets eliminated as there will be more than 13 box.)
(Similarly, Case 1.2 gets eliminated as there will be 13 box not less than 13 box.)
6) Box $U$ is kept below box $Q$ but above $P$. (here case - 1.1 will gets eliminated)
7) There is only one box kept between $U$ and V.
(Here case 2.1 ( $B$ ) will gets eliminated)

8) Box $W$ is kept somewhere above $X$.
9) As many boxes kept between $V$ and $S$ as many between Q and Y .
(as there is no box kept between V and S therefore there will not be any box between $Q$ and $Y$.)
10) Box $Z$ is kept somewhere Above R.
11) Box $Y$ is kept below $Q$.

| $\mathbf{Q}$ |
| :--- |
| $\mathbf{Y}$ |
| $\mathbf{Z}$ |
| T |
| R |
| W |
| $\mathrm{U} / \mathrm{V}$ |
| S |
| $\mathrm{V} / \mathrm{U}$ |
| X |
| P |

There are 11 box in the stack.
86. Ans. D.

Boxes: P, Q, R, S, T, U, V, W and X

1) There are 5 boxes between box $P$ and box
$R$.
2) Box T is kept immediately above R.

| Case-1 | Case-2 |
| :--- | :--- |
|  | $T$ |
| $P$ | $R$ |
|  |  |
|  |  |
|  |  |
|  |  |
| $T$ |  |
| $R$ | $P$ |

3) 3 boxes are kept between box $T$ and box
S.

| Case-1.1 | Case-1.2 | Case-2.1 | Case-2.2 |
| :--- | :--- | :--- | :--- |
|  |  | T | S |
| P | P | R |  |
| S |  |  |  |
|  |  |  |  |
|  |  | S | T |
|  |  |  | R |
| T | T | P |  |
| R |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

4) The number of boxes between $P$ and $S$ is same as the number of boxes between $T$ and Q.
5) There are less than 13 boxes kept in the stack.

| Case-1.1 | Case-2.1 (A) | Case-2.1 (B) |
| :--- | :--- | :--- |
|  | Q |  |
|  |  |  |
|  |  |  |
|  | T | T |
| P | R | R |
| S |  |  |
|  |  | Q |
|  | S | S |
| Q |  |  |
| T |  |  |
| R | P | P |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(Here case - 2.2 gets eliminated as there will be more than 13 box.)
(Similarly, Case 1.2 gets eliminated as there will be 13 box not less than 13 box.)
6) Box $U$ is kept below box $Q$ but above $P$. (here case - 1.1 will gets eliminated)
7) There is only one box kept between $U$ and V .
(Here case 2.1 (B) will gets eliminated)

8) Box $W$ is kept somewhere above $X$.
9) As many boxes kept between $V$ and $S$ as many between Q and Y .
(as there is no box kept between V and S therefore there will not be any box between $Q$ and $Y$.)
10) Box $Z$ is kept somewhere Above $R$.
11) Box $Y$ is kept below $Q$.

I. Two boxes between T and Q. $\Rightarrow$ True
II. S is kept below W. $\Rightarrow$ True
III. U is kept immediately above P. $\Rightarrow$ False Hence both I and II is true.
87. Ans. C.
$6 m+2 m+5 m=13 m$
Hence, option C.

88. Ans. C.

Point $R$ is south-west of point $P$.
Hence, option C.

89. Ans. A.

Point $S$ is west of point $P$.
Hence, option A.

90. Ans. A.
(A) is a conclusion. (D) goes against the grain of the passage. (B) applies only to rich students. But (C) is the assumption that underlines the logical reasoning in the passage.

## 91. Ans. A.

Only course of action I follows. Because the ratio of $1: 17,68$ is so screwed up that immediate steps should be taken to recruit more doctors. Courses of action II and III do not follow. Rolling out incentives to those students who take up medicine would be highly unfair and increasing the number of clinics makes no sense if there are no doctors available. Therefore, option A is the correct answer.
92. Ans. C.

Only III can be inferred. The very name Reuters Institute digital news reports - and the fact that they published a report on the use of social media for news suggests that their reports reveal various insights about digital news consumption. Inferences I and II cannot be deduced because both of them contain a lot of extraneous information that cannot be deduced from what is given. Therefore, option C is the correct answer. 93. Ans. D.

The statement mentions that 'majority of victims might have been nuisance to peace loving people. This implies that majority of the
victims are wicked people though some victims are innocent people too. So, both I and II are implicit. Further the statement advocates vehement opposition of wars. So III is implicit.
94. Ans. D.

We have to focus our attention on the conclusion at hand and on larger issues "They need not even be in the not to better IT systems, office at all why?
Because due people can work from elsewhere, as given in (D).
95. Ans. A.
$M \geq G=T \geq B<Q=P<R=S$
From I, $M \geq B$, clearly I is true.
From II, T<P, we can't compare $T$ and $P$ so II is not true.
Hence, only I is true.
96. Ans. B.

Refer to the first paragraph of the passage. It can be clearly inferred that according to gender neutrality, social roles shouldn't be assigned as per the gender of the person and that the term backs the elimination of gender based distinctions.
97. Ans. C.

Refer to the following statement of the passage, "Advocates of post-genderism argue that the presence of gender roles, social stratification, and cogno-physical disparities and differences are generally to the detriment of individuals and society."
'Discrepancies' means differences/ disparities. Inimical means destructive/ harmful. Since the statement says that the post-genderists argue about it, it is clear that it is their cause of concern.
98. Ans. A.

Refer to the following statement of the fourth para, 'Gender-neutral language, genderinclusive language, inclusive language or gender neutrality is a form of linguistic prescriptivism that aims to eliminate (or neutralize) reference to gender in terms that describe people. This can involve discouragement of the use of gender-specific job titles....' and the following line of the sixth para, '"Gender-neutral language" should not be confused with "genderless language", which refers to a language that does not have grammatical gender.'

The former statements validate option A and nullify option $B$. The latter statement nullifies option C.
99. Ans. B.

Refer to the third paragraph of the passage. It can be inferred that the main reason for it to be considered a controversial topic is because of the increased number of individuals who identify as transgender, intersex, third sex etc. and that the people are not in a comfortable position to overtly have a discussion over the same.
100. Ans. C.

Refer to the following statement of the passage, "Given the radical potential for advanced assistive reproductive options, postgenderists believe that sex for reproductive purposes will either become obsolete, or that all post-gendered humans will have the ability, if they so choose, to both carry a pregnancy to term and father a child." The correct answer is option C.
Option A is nowhere mentioned in the passage.
Option B is an incomplete context. Option D is illogical and talks about something that is beyond the scope of the passage.
101. Ans. A.

Dispute $=$ conflict, argument Squabble $=$ a noisy quarrel about something trivial.
Apostle $=$ a vigorous and pioneering advocate or supporter of a particular policy, idea, or cause.
Concordance $=$ agreement or consistency. Causatum = effect
Imprint = make an impression or mark on. Hence, option A is the correct answer.
102. Ans. C.

Perspective $=$ a view or prospect. Dissension $=$ disagreement that leads to discord.
Condemnation = the expression of very strong disapproval; censure.
Prospect $=$ a view or perspective Exponent $=$ a person who supports an idea or theory and tries to persuade people of its truth or benefits.

Sympathy $=$ feelings of pity and sorrow for someone else's misfortune.
Hence, option C is the correct answer.
103. Ans. D.

Transcend $=$ surpass (a person or achievement).
Consonance $=$ agreement or compatibility between opinions or actions.
Initiate $=$ Bolster $=$ support or strengthen
Outstrip = move faster than and overtake (someone else).
Urge =try earnestly or persistently to persuade (someone) to do something. Hence, option D is the correct answer.

## 104. Ans. E.

Reinforce $=$ strengthen or support (an object or substance), especially with additional material.
Reciprocity $=$ the practice of exchanging things with others for mutual benefit, especially privileges granted by one country or organization to another.
Concord = agreement or harmony between people or groups.
Culmination = the highest or climactic point of something, especially as attained after a long time.
Tout = attempt to persuade people of the merits of.
Undermine = lessen the effectiveness, power, or ability of, especially gradually or insidiously.
Hence, option E is the correct answer.
105. Ans. C.

Stratification $=$ the arrangement or classification of something into different groups.
Denouement = the outcome of a situation, when something is decided or made clear. Outset $=$ the start or beginning of something. Unison = harmony
Cessation = the fact or process of ending or being brought to an end. Repercussion = an unintended consequence of an event or action, especially an unwelcome one.
Hence, option C is the correct answer.
106. Ans. B.
"Symptom" refers to the physical or mental feature which is regarded as indicating a condition of disease, particularly such a feature that is apparent to the patient. "Malleable" means easily influenced; pliable. "Symptoms" fits in the fits in the first blank as "symptoms" could emerge or start being noticeable. The characteristic of "malleability" allows ease of working on the brain. Thus, option B is the correct answer.
107. Ans. C.
"Detection" refers to the action or process of identifying the presence of something concealed and "subtle" is something so delicate or precise as to be difficult to analyze or describe. Hence, these are the most appropriate words.
108. Ans. C.

The sentence is about the decision taken by central bank's monetary policy committee that they will give time to the committee decision to see the transitory efforts of demonetization on inflation and the output. The first word should mean that the committee has decided. The second word should be a pronoun for the committee. Being committee a collective noun, pronoun it will be used. The singularity and plurality of the 'it' depends on singularity or plurality of verb. Also, reflexive form of a noun should be used. Therefore, option C is apt. Opted means making a choice from a range of possibilities. And for the committee, reflexive form of 'it' should be used.
109. Ans. C.

Among all the options, "pace" meaningfully follows the word "grow". "Acknowledging" means to accept, admit, or recognize something. The sentence talks about the acceptance of government of demonetization's impact on consumer spending.
110. Ans. E.

The sentence is about a stereotypical fact that the finance minister has limited resources, thus, he won't be able to provide more investment to different projects or subdepartment but for the first time, he has an extra budget now. The first blank must have a word which means to be controlled, or compel
to follow a particular course of action. The second blank must be in accordance with won't and plural form of give. Therefore, Option E is apt. "Constrained" means compelled to follow a particular course of action.
111. Ans. E.

The second blank is followed by the phrase "the end of 2016". Since this is not a fixed time- frame, "at" cannot fit in the blank. This eliminates option D. "Approaching", "near" and "of" would be grammatically incorrect in the blank. This eliminates option A, B, and C. This leaves us with option $E$, which is the correct answer.

## 112. Ans. A.

"Revenue" refers to income, especially when of an organization and of a substantial nature and "demographic" means a statistic characterizing human populations. Hence, these are the most appropriate words.
113. Ans. D.

The sentence is about the efficiency of amazon. The first blank must have a word that shows possibility in a positive tone. The second blank must have a word that shows easiness to use the portal. Therefore, option D is apt. 'Perhaps' is used to express uncertainty or possibility. 'Simplify' refers to make something simpler or easier to do or understand.
114. Ans. D.

The latter part of the sentence talks about some action that has been made possible by internet which helps people to speak out their minds. Logically, the only word that fits in the blank is anonymity which is the condition of being anonymous i.e. (of a person) not identified by name; of unknown name. Folio refers to an individual leaf of paper. Epoch refers to a particular period of time in history or in a person's life Apprehensions mean doubt. Conviction means a firmly held belief. Rapidness refers to the fastness of something. Nuances refer to a slight difference in meaning, expression, or sound. Exploring the options via their meaning, the first blank can be filled in by the word nuances.
Thus, D is the correct option.
115. Ans. C.

It can be concluded from the statement that the portrayal of women in video games is inappropriate and unreasonable. Therefore, 'absurdity' best fits the first blank. 'Exhibiting' fits the second blank as it means displaying.
So option 3 is the correct answer.
Felony - crime
Enticing- tempting
Transgression- crime
Tantalizing- teasing
Malfeasance- wrongdoing
Enthralling- fascinating
116. Ans. D.

Refer to the last question of the series.
117. Ans. A.

Refer to the last question of the series.
118. Ans. A.

Refer to the last question of the series.
119. Ans. B.

Refer to the last question of the series.
120. Ans. C.

Correct Sequence: FECABD
The central theme of all the passage is the threat of rising sea level in Kolkata and Mumbai as reported by a US-based organization. hence sentence $F$ is the opening sentence of this series.
Sentence E and C from a pair since both talk about the steps taken to prohibit and mitigate the situation of waterlogging. In this case, the statement of the mayor should be followed by the steps taken by the civil body. The mayor is a part of the civic body.
Sentence A and B form a pair as both of them talk about the reasons that lead to waterlogging in Kolkata. B will come after A because of the use of the word 'more' in it, adding to the poor conditions with respect to waterlogging.
Placing sentences $A B$ before EC makes the structure not very convincing on grammatical and logical grounds. Thus, EC should be followed by AB.
Statement D stands independently as it talks about a redeeming factor for Kolkata in light of the existence of wetlands in the eastern side, and should come last in the series. It has no direct linkage to any of the other
statements with respect to the reasons for waterlogging or the steps taken to control them.
121. Ans. E.

The above sentence is grammatically correct. 122. Ans. A.

The error lies in the incorrect usage of a pronoun. Instead of "this", 'these' should be used; 'this' is used to describe a singular countable noun and "these" is used with plural countable nouns. A non-countable noun has no plural form. In the above sentence, "philosophers" is plural, and 'these' is the pronoun that should be used. Hence, option A is correct.
123. Ans. D.

The error lies with the incorrect usage of a pronoun. 'Whom' is the object of a verb (i.e. the one being acted upon). The difference between 'who' and 'whom' is similar to that between 'he' and 'him'. 'He' is the subject of the verb, and 'him' is an object. Similarly, 'who' is the subjective pronoun and the sentence demands the subjective pronoun and not objective pronoun.
Hence, D is correct.
124. Ans. B.

The error lies in the incorrect usage of the pronoun. The words 'there' and 'their' are often confused and misused because they are homophones i.e., they sound alike. 'There' refers to a place; while "their" means belonging to, or associated with, a group of people. The sentence demands a possessive known as it shows belonging; so, there" should be used here. Hence, option B is correct.
125. Ans. D.

The error lies in the incorrect usage of the tense in part D. "Has" indicate singular subject" and "have" indicates plural subjects. Since we have two subjects joined by the conjunction "and", the plural verb must be used. Thus, "has been" should be replaced by "have been" to make the sentence correct. 126. Ans. C.

The error lies in the incorrect usage of 'which' in the third part of the sentence. Here we need to use the conjunction "that" to state what was unacceptable. "Which" makes the sentence grammatically incorrect.
127. Ans. B.

The error lies in the incorrect usage of a preposition. Instead of 'point for', it should be 'point with' as the sentence reflects the association. The idea here is to provide the point with elegance, which is correct this way and not otherwise.
Hence, option B is correct.
128. Ans. C.

The error lies in the incorrect usage of the verb. "Have been" is a verb used to form the present perfect tense, and when followed by a present participle, such as "running", "walking", "doing" etc., the present perfect continuous tense. "Had been" basically follows similar parameters, but for the past perfect continuous tense instead of present perfect. In this case, "had" doesn't change depending on the subject, whether it is singular or plural. Hence, C is correct.
129. Ans. A.

The error lies in the incorrect usage of an adverb. The main difference between these two words is that "however" can stand by itself at the beginning of a sentence, with a comma after it, while "although" can't do this. The words also have slightly different meanings - "although" means "in spite of the fact that", while "however" means "but". The above segment requires the usage of "however" and not "although".
Hence, A is correct.
130. Ans. B.

The error lies in the incorrect usage of the preposition. The preposition "by" is used when the dependent clause starts with a verb, while "with" is used when the dependent clause starts with a noun.
Hence, $B$ is correct.
131. Ans. E.

The sentence is grammatically correct.
Hence, E is correct.
132. Ans. A.

The sentence implies that the concerned persons cleaned their house before their parents came back home.
The phrase 'straighten up' means 'to make (something) organized or tidy'. Therefore, option A is the correct answer.
133. Ans. C.

The phrase 'require considerably' is incorrect. We use base form of the verb after modals. Therefore, 'required' must be replaced with 'require'.
Also, an adjective is required to modify the gerund form of the word 'maneuvering'. Hence, 'considerably' must be replaced by 'considerable' to form a grammatically correct sentence.
Hence, option C is the correct answer.
134. Ans. E.

The sentence is both contextually and grammatically correct, hence, no correction is required.
Therefore, option E is the correct answer.
135. Ans. B.

The sentence is an example of third conditional sentences.
Third conditional sentences are used to explain that present circumstances would be different if something different had happened in the past.
When using the third conditional, we use the past perfect (i.e., had + past participle) in the if-clause. The modal auxiliary (would, could, should, etc.) + have + past participle in the main clause expresses the theoretical situation that could have happened.
Therefore, 'have seen' must be replaced by
'had seen' to form a grammatically correct sentence.
Hence, option B is the correct answer.
136. Ans. D.

The sentence implies that the person's plan to trek through South America failed when he got sick.
If something that has been planned or agreed falls through, it does not happen i.e. the phrase 'fall through' means 'to fail'.
Hence, 'fell upon' must be replaced with 'fell through' to form a grammatically correct sentence.
Therefore, option $\mathbf{D}$ is the correct answer. 137. Ans. A.

The given sentence violates parallelism. Parallel structure is the repetition of a chosen grammatical form within a sentence. When we compare items in a list, we use parallel structure.

In the given sentence, adjectives are used to modify 'public schools' while 'funded by the government' is a phrasal verb. It needs to be replaced by some adjective. 'Governmentfunded' is the appropriate adjective to maintain the parallelism.
Hence, option A is the correct answer. 138. Ans. C.

We use past perfect tense to talk about something that happened before another action in the past, which is usually expressed by the simple past.
In the given sentence, the subjects were not able to stay overnight at the hotel because they had not made reservations before.
Therefore, the phrase in the bold should be in the past perfect tense.
Hence, option C is the correct answer. 139. Ans. A.

The given sentence talks about the activities happened in the past. The emboldened phrase violates the parallelism of the sentence. The phrase should be in past continuous tense.
When we use the past continuous with two actions in the same sentence, it expresses the idea that both actions were happening at the same time. The actions are parallel.
Therefore, the phrase should be 'was not paying attention'.
Hence, option A is the correct answer. 140. Ans. E.

The given sentence is both grammatically and contextually correct. "Unpardonably" is an adverb which correctly modifies the verb "neglected".
Hence, option E is the correct answer.
141. Ans. E.

According to the second paragraph of the passage, "smart city" is a designation given to a city that incorporates information and communication technologies (ICT) to enhance the quality and performance of urban services such as energy, transportation and utilities in order to reduce resource consumption, wastage and overall costs.
In the passage, there is no mention of what 'smart' means in Smart Cities. Option B makes sense, but it is not mentioned in the passage. Therefore, option E is the apt answer.
142. Ans. D.

Option A: The report was on the Smart Cities Mission, not on slum-free or cities without slum. The statement can't be deciphered from the passage.
Option B: The passage states that 'the Housing and Land Rights Network (HRLN) on the Smart Cities Mission poses the question: "Smart for whom?"..' Retort means to say something in answer to a remark, typically in a sharp, angry, or witty manner. So, the statement is the opposite of what mentioned in the passage.
Option C: One cannot say or decipher, 'the Smart Cities Mission seeks to cover nearly 10 crore population in 100 cities,' from the paragraph.
Option D: It can be deciphered from the first and the last paragraphs.
Option E: The correct sentence is '...At least six homes are destroyed and 30 people forcibly evicted each hour in India as authorities modernise cities and build highways.'
Therefore, option D is the apt answer.
143. Ans. B.

We can decipher all the statements from the third paragraph except statement B. The paragraph states '..It seems difficult for the planners to realise that since the beginning of the last century, despite the spectacular growth of urban populations, the poorest half of the world has received just $1 \%$ of the total increase in global wealth.' It might be conveying the sense that global wealth inequality has been high and rising. But 'despite the spectacular growth of urban populations, global wealth inequality has certainly been high and rising' makes no sense. Therefore, option B is the apt answer. 144. Ans. E.

Option I: From the second paragraph, one can decipher that focus of the mission is economic growth. But the first paragraph states that 'without taking into account the paucity of formal housing that cities offer,' it is exercising forced evictions and demolitions of homes, slums in particular. How can this contribute to the economic growth? So, one
can say that the smart city proposal is perpetuating the very issue that they aim to solve.
Options II, III and IV can be deciphered from the fourth paragraph, thereby all options can be used.
Therefore, option E is the apt answer.
145. Ans. B.

Option I: The passage states '.. The three main mechanisms have been adopted to produce space-infrastructure and mega-projects, redevelopment, and creating exception regimes for "slums" are applicable to the implementation of the Mission.' This means that the Smart Cities Mission uses these
mechanisms as their mechanisms for the implementation of the mission. Hence, option I can be inferred.
Option II: From the fourth paragraph, one can clearly state that the statement is clearly mentioned in the passage, not inferred from the passage.
Option III: The passage states, '..Over the last two decades, the state-led production of space, as part of worlding cities, has introduced new structural violence into the lives of poor groups.' 'Worlding cities'refers to urbanisation. Hence, option III can be inferred.
Therefore, option B is the apt answer.

