## IBPS RRB Clerk Mains 2018

## REASONING ABILITY

Directions (1-5): Read the following information carefully and answer the questions given below.

Eight persons i.e. C, D, E, J, K, P, R and Q sitting in a twoparallel row such that person sitting in row 2 faces north and the person sitting in row 1 faces south. They all are of different age. The one who faces K sits third to the right of J . One of the immediate neighbour of K is 9 years old and faces E. D sits second to the right of R. Q faces south direction. D does not sit in the same row with E. One of the immediate neighbour of E faces the one who is 14 years old. One of the immediate neighbour of $R$ faces $C$, who is 7 years old. C does not face the immediate neighbour of D. P is 18 years of Age. The one who is 10 years of age sits second to the right of the one who is 23 years of age. K is 1 year older than $D$, whose age is an even number. The immediate neighbour of $P$ faces the one who is 12 years of age and faces south direction.

1. Who among the following is 23 years of Age?
(a) D
(b) R
(c) C
(d) J
(e) None of these
2. Who among the following is the immediate neighbour of C?
(a) E
(b) J
(c) P
(d) R
(e) None of these
3. What is the age of D (in years)?
(a) 9 years
(b) 23 years
(c) 12 years
(d) 10 years
(e) None of these
4. Four of the following five belongs to a group find the one that does not belong to that group?
(a) K
(b) J
(c) D
(d) C
(e) Q
5. Who among the following pairs are the immediate neighbour of Q ?
(a) C and J
(b) D and R
(c) P and R
(d) $K$ and $P$
(e) None of these

Directions (6-10): Study the following information carefully and answer the questions given below:

Six persons A, B, C, D, E and F sit around a circular table equidistant to each other facing center. Each of them is from different city viz. Delhi, Mumbai, Kolkata, Hyderabad, Chennai and Pune but not necessarily in the same order. Only one person sits between A and the one who is from Pune. The one who is from Mumbai sits second to the right
of one who is from Pune. F sits opposite to the one who is from Mumbai. F sits second to the left of C. Only one person sits between the one who is from Chennai and C. E sits immediate left of the one who is from Chennai. F is not from Chennai and D is not from Pune. The one who is from Delhi sits second to the left of the one who is from Kolkata.
6. Who among the following belongs to Kolkata?
(a) A
(b) B
(c) C
(d) D
(e) E
7. The one who sits opposite to C belongs to which city?
(a) Kolkata
(b) Hyderabad
(c) Pune
(d) Delhi
(e) Mumbai
8. E belongs to which city?
(a) Mumbai
(b) Kolkata
(c) Pune
(d) Chennai
(e) Delhi
9. How many persons sit between A and D counting from right of A?
(a) one
(b) two
(d) four
(e) None
(c) three
10. Who belongs to Chennai?
(a) B
(b) C
(c) D
(d) E
(e) F

Directions (11-15): Read the following information carefully and answer the questions given below.
Six employees J, K, L, M, N and P work in a company at different post viz. clerk, PO, AM, MG, DGM and GM. All the designations given are to be considered in a given order (as GM is considered as Senior-most and Clerk is considered as the Junior-most). Each of them belongs to six different cities viz. Gwalior, Mangalore, Cuttack, Kochi, Shimla and Thrissur.

Only two persons are junior to M, who belongs to Kochi. N is senior to M but junior to the one who belongs to Cuttack. $J$ is immediate senior to the one who belongs to Thrissur. The one who is from Gwalior is immediate junior to L. J is not from Cuttack. The one who is junior most belongs to Shimla. K does not belong to Mangalore.
11. Who among the following is DGM?
(a) J
(b) K
(c) L
(d) M
(e) N
12. GM of the company belongs to which city?
(a) Mangalore
(b) Gwalior
(c) Thrissur
(d) Cuttack
(e) Cannot be determined
13. How many persons are senior to the one who belongs to Mangalore?
(a) one
(b) two
(d) four
(e) five
(c) three
14. $P$ belongs to which city?
(a) Mangalore
(b) Gwalior
(c) Thrissur
(d) Cuttack
(e) Cannot be determined
15. Who is immediate junior to $J$ and he belongs to which city?
(a) N, Kochi
(b) P, Mangalore (c) L, Shimla
(d) K, Cuttack
(e) N, Thrissur

Directions (16-18): Read the following information carefully and answer the questions given below.
Six jars namely C, D, E, F, G and H contains different amount of mixtures. Jar E has more than 10 litre mixture. Jar C is lighter than only two jars. E is heavier than D but lighter than F. Jar G is heavier than H. F is not heaviest. Jar H is heavier than $D$ and has 9 litre mixture.
16. Which among the following jar is second lightest?
(a) F
(b) C
(c) D
(d) H
(e) E
17. Which among the following jar is heaviest?
(a) E
(b) G
(c) F
(d) D
(e) H
18. What could be the amount of mixture in jar E if jar C has 16 litre mixture?
(a) 11 litre
(b) 8 litre
(c) 23 litre
(d) 18 litre
(e) 21 litre

Directions (19-20): Study the following information carefully and answer the questions given below:
There are Seven Members A, B, C, D, E, F and L in a family. There are two married couples and only three generations in the family. $F$ is grandmother of $B$, who is niece of $D$. $F$ has one son and one daughter. C is brother-in-law of D. L is grandfather of E . B has no siblings.
19. How is $F$ related to mother of $B$ ?
(a) sister
(b) grandmother(c) daughter
(d) mother
(e) wife
20. How is A related to child of $D$ ?
(a) Grandfather
(b) Aunt
(c) Uncle
(d) Brother
(e) Cousin

Directions (21-25): Read the following information carefully and answer the questions given below:
Eleven persons i.e. A, B, C, H, L, N, T, G, R, M and Q who all bought laptops on different days one after the other. Three person bought laptop between G and T. Only one person bought laptop between L and T. H bought immediately after T. Four person bought laptop between L and M. Only three persons bought laptop between R and L . More than three persons bought laptop between Q and H. Four
persons bought laptop between R and C , who bought laptop after R. Not More than two persons bought laptop after C. More than three person bought laptop between M and B. Q does not bought laptop first or last. A bought laptop before C but after N . M bought after H and B bought after N .
21. Who among the following bought laptop first among all?
(a) N
(b) L
(c) T
(d) A
(e) None of these
22. How many persons bought laptop between N and G ?
(a) Two
(b) Three
(c) One
(d) Four
(e) None of these
23. Who among the following bought immediately after A?
(a) Q
(b) R
(c) B
(d) L
(e) None of these
24. Four of the following five pairs belongs to a group find the one that does not belong to that group?
(a) G and C
(b) R and T
(c) N and H
(d) $M$ and $A$
(e) L and T
25. Which of the following statement is false regarding $Q$ ?
(a) Only two persons bought after Q.
(b) More than Three persons bought between Q and T.
(c) Q bought laptop immediately after C
(d) Two persons bought between Q and M .
(e) All are correct

Directions (26-29): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.
(a) If statements I alone is sufficient to answer the question, but statement II alone is not sufficient to answer the question.
(b) If statement II alone is sufficient to answer the question, but statement I alone is not sufficient to answer the question.
(c) If statement either I or II is sufficient to answer the question.
(d) If both the statements I and II taken together are not sufficient to answer the questions.
(e) If both the statements I and II taken together are sufficient to answer the questions.
26. Five persons i.e. $M, N, O, P$ and $Q$ who all are of different heights who among the following is the shortest?
I. $N$ is shorter than only one person. 0 is taller than both P and $\mathrm{Q} . \mathrm{M}$ is taller than P .
II. $Q$ is taller than only two persons. $P$ is taller than N but shorter than $\mathrm{O} . \mathrm{N}$ is not the shortest among all.
27. Six persons i.e. A, B, C, D, E and F who sits in a row such that all are facing towards north. Who among the following sits at the right end at the row?
I. A sits second to the right of B. Both A and B does not sit at the end of the row. Only one person sits between E and D.
II. C and F are the immediate neighbour of each other. More than two persons sits between C and $A$. $E$ is not the immediate neighbour of $B$.
28. Five persons i.e. $U, V, W, X$ and $Y$ lives in a multi storey building such that ground floor is numbered 1 and above it is number 2 and the top floor is numbered 5 . Who among the following lives immediately above $V$ ?
I. Only two person lives between $V$ and $X$. $Y$ does not live above $V$. Only one person lives between $U$ and $Y$. $X$ lives below $U . V$ and $Y$ does not lives on adjacent floors of each other.
II. Only one person lives between $W$ and $Y$. $U$ and $V$ lives on and adjacent floors. One person lives between $X$ and $V$. Only one person lives between W and U . X lives below V .
29. Six persons i.e. A, B, C, D, E,F sits around a circular table such that facing towards the centre. Who among the following sits second to the left of D ?
I. Only one person sits between A and D. Only two persons sits between D and E. Only two persons sits between A and B. B and F are immediate neighbours.
II. Only two person sits between D and A. E sits second to the right of C. Only one person sits between B and F.

Directions (30): Study the following information to answer the given questions:
A word and number arrangement machine when given an input line of words, rearranges them following a particular rule in the given examples. The following is an illustration of input and rearrangement.

## Example 1:

Input: ring 14 wise loyal 3651 down 97.
output: 14 wise 36 ring 51 loyal 97 down.

## Example 2:

Input: hello 91 rise given 2165 blown 40. output: 21 rise 40 hello 65 given 91 blown.
30. What will be the possible output of the given Input? Input: Sing 84 pen 25 wrong 39 full 60 .
(a) 25 wrong 39 sing 84 pen 60 full.
(b) 39 wrong 25 sing 84 pen 60 full.
(c) 25 wrong 39 sing 60 pen 84 full.
(d) 39 sing 25 wrong 84 pen 60 full.
(e) None of these

Directions (31-34): Study the following information carefully and answer the questions given below:
Arun starts walking in east direction from point A. After walking for 16 m he reaches point $B$. From $B$ he takes right turn and walks for 13 m to reach point C . Then he takes left turn and walks 15 m to reach point D. Again, he takes left turn and walks for 20 m to reach point E and stop.
Arun's friend Luv starts from $P$ and walks for 16 m in west direction to reach point Q .
(Note: Point P is North of Point B and also West of Point E.)
31. What is the shortest distance between $Q$ and $A$ ?
(a) 13 m
(b) 18 m
(c) 9 m
(d) 10 m
(e) 7 m
32. Point $Q$ is in which direction with respect to point $C$ ?
(a) North
(b) South
(c) Northwest
(d) Northeast
(e) Southwest
33. If F is the mid-point of line ED the F is in which direction with respect to point B ?
(a) East
(b) Southeast
(c) Southwest
(d) Northeast
(e) West
34. Find the odd one out among the following?
(a) $B Q$
(b) CA
(c) DP
(d) CQ
(e) EB
35. If in a certain code $(10,23,52)$ is written as $(5,11,26)$ and $(61,18,47)$ is written as $(30,9,23)$ then how $(3616,25,11)$ can be coded?
(a) $187,12,5$
(b) $188,13,5$
(c) $1808,13,6$
(d) $3616,12,5$
(e) $1808,12,5$

Directions (36-39): Read the following information carefully and answer the questions given below:

Nine persons i.e. P, Q, R, S, T, X, W, U and V who all born on different dates in three different months i.e. January, June and December but not necessarily in the same order. Only three persons born in any of the month. One person born between $X$ and $R$. Both $X$ and $R$ does not born in the month having 30 days. Five persons born between $P$ and R. $P$ born on the $30^{\text {th }}$ of the month. X born before R . The one who born immediately before R was born on $18^{\text {th }}$. T born on $24^{\text {th }}$ but not in the month X and P born. V born on $25^{\text {th }}$ and immediately after T. Only one person born between $W$ and U . The number of persons born between S and V is same as the number of persons sits between $V$ and $W$. $R$ born on the last day of the month. $S$ born on $27^{\text {th }}$ but not in the month in which $T$ born. The one who born before $W$ born on $16^{\text {th }}$. One of the persons born on 29th in the month of June. There is a difference of 8 days between the birthdate of $Q$ and $S$.
36. How many persons born after $R$ ?
(a) Two
(b) Three
(c) Four
(d) One
(e) No One
37. Who among the following pair of persons born in the same month?
(a) W and V
(b) V and P
(c) Q and U
(d) W and R
(e) None of these
38. Who among the following born immediately after X ?
(a) U
(b) W
(c) S
(d) Q
(e) None of these
39. $X$ born on which of the following day?
(a) 16th
(b) 29th
(c) 20th
(d) 26th
(e) None of these

Directions (40): In each question below are given some statements followed by two conclusions numbered I and II. 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. Give answer
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.
40. Statement: Some Doctor are Student.

All Professor are Doctor.
Some teacher are Scholar.
No Student are Scholar.

## Conclusion:

I. Some Teacher are not student.
II. All Doctor never be Scholar.

## QUANTITATIVE APTITUDE

Direction(41-45): The table shows the total no. of mails received in inbox by different users $\&$ the percentage of mails read by the users \& the total no. of spam mails received in a month.

| Users | Total no. of <br> mails <br> received in <br> inbox | \% of <br> inbox <br> mails <br> read by <br> user | Total no. of <br> spam mails <br> received |
| :---: | :---: | :---: | :---: |
| $\mathbf{X}$ | 725 | $68 \%$ | 88 |
| Y | 840 | $65 \%$ | 82 |
| $\mathbf{Z}$ | 800 | - | 152 |
| K | - | $45 \%$ | 92 |
| L | 580 | - | 76 |

## Note:

1. Total no. of mails received $=$ Total mails received in inbox + total no. of spam mail received
2. Spam mails are not read by user.
3. Some data are missing, calculate if necessary.
4. Average no. of mails received in inbox by user $X, Y$ \& K is $750 \%$ of average no. of spam mail received by user $X, Y$ and $K$. Then find the total no. of mails received by user K ?
(a) 492
(b) 528
(c) 426
(d) 482
(e) None of these
5. Inbox mails read by user Z is what percentage of total mails received in inbox of Z given that inbox mails read by user Z is $125 \%$ of total spam mails received by user K?
(a) $14.375 \%$
(b) $19.25 \%$
(c) $24.125 \%$
(d) None of these
(e) $11.215 \%$
6. Inbox mails read by user $X$ \& $Y$ together is how much more/less than spam mails received by the same user together?
(a) None of these
(b) 939 more
(c) 728 less
(d) 869 more
(e) 829 more
7. Total no. of mails received by K is approximately what percent of inbox mails read by user X given that mails received in inbox by $K$ is thrice of mails received in spam by $X$ ?
(a) $54 \%$
(b) $62 \%$
(c) $78 \%$
(d) $68 \%$
(e) $72 \%$
8. Number of inbox mails which are not read by user Z is $150 \%$ more than mails received in spam by user $X$. Then find average of inbox mails read by user Z \& Y?
(a) None of these
(b) 618
(c) 425
(d) 563
(e) 589

Directions (46-50): The following questions are accompanied by two statements (I) and (II). You have to determine which statements(s) is / are sufficient / necessary to answer the questions.
46. Find the value of $9^{\frac{1}{x}}+9^{\frac{1}{y}}$ ?
I. The difference of inverse of $x \& y$ is $8 / 3$.
II. the multiplication of $x \& y$ is 3 .
(a) Only I
(b) Only II
(c) Either I or II
(d) Only I and II
(e) None of the above
47. How many women are required to complete the work in 12 days.
I. Efficiency of men are $2 / 3$ rd of efficiency of women.
II. 16 men can complete the same work in 10 days.
(a) Only I
(b) Only II
(c) Either I or II
(d) Only I and II
(e) None of the above
48. In the triangle $A B C$. Find $\angle A B D$ ?

I. Given that $\mathrm{BC}=\mathrm{CD}$.
II. $\angle \mathrm{ABC}-\angle \mathrm{BAC}=30^{\circ}$
(a) Only I
(b) Only II
(c) Either I or II
(d) Only I and II
(e) None of the above
49. What is the C.I. on a sum at the end of 3 years ?
I. C.I. at the end of two years is Rs. 110.
II. Difference between CI and SI at the end of two year is Rs. 100 and rate percent is $10 \%$.
(a) Only I
(b) Only II
(c) Either I or II
(d) Only I and II
(e) None of the above
50. Two trains $X$ and $Y$ starts from point $A$ and $B$ respectively towards each other. What is the distance between them when they start?
I. When both trains cross each other, time taken by train $X$ to reach $B$ is twice the time taken by train Y to reach A.
II. Distance between them after 60 min . is 800 km .
(a) Only I
(b) Only II
(c) Either I or II
(d) Only I and II
(e) None of the above

Direction (51-55): Study the given line graph carefully \& answer the questions.
Line-graph given below shows the price per square feet of land in different years.

51. In 2015, if Rahul bought a plot of 1800 sq. feet. Then how much plot he has bought with the same amount in 2016?
(a) 1650 sq. feet
(b) 1720 sq. feet
(c) 1825 sq. feet
(d) None of these
(e) 1850 sq. feet
52. In 2016 if veer bought a plot 800 sq. feet \& want to sell it in 2017 to earn profit of $20 \%$. Then find the price per sq. feet in 2017 for same plot?
(a) Rs. 2250
(b) None of these
(c) Rs. 2730
(d) Rs. 2880
(e) Rs. 2460
53. If Satish bought 1840 sq. feet land in 2012 and Sandy bought 1640 sq. feet land in 2014. Then find ratio of amount spent by Satish in 2012 to amount spent by sandy in 2014?
(a) $3: 5$
(b) $205: 598$
(c) $598: 205$
(d) $538: 207$
(e) $598: 305$
54. If Ayush bought a plot in 2010 at a price $\frac{3}{4}$ th of the price in 2013. Then, find difference of amount paid by Ayush to buy plot of 2240 sq. feet in 2010 and 2013.
(a) Rs. 8.28 lakh
(b) Rs. 4.84 lakh
(c) Rs. 5.64 lakh
(d) Rs. 6.28 lakh
(e) Rs. 7.84 lakh
55. If plot bought by Abhi in 2016 is 2420 sq. feet and plot bought by Roly in 2011 is 1640 sq. feet. Then find average of money spent by Abhi and Roly?
(a) Rs. 58.6 lakh
(b) Rs. 53.4 lakh
(c) None of these
(d) Rs. 43.8 lakh
(e) Rs. 48.2 lakh
56. When digits of a first two digit number are reversed, then the resulting number will become $75 \%$ of second two digit number. The difference of squares of tens digit and units digit of the second number is 20 . Find the first number.
(a) 77
(b) 89
(c) 111
(d) 84
(e) 95
57. A vessel contains 25 liters petrol. $20 \%$ of the petrol is replaced by kerosene oil, after that $30 \%$ of the mixture is replaced by kerosene oil. Now, find the quantity of petrol in the final mixture is what percent of the quantity of petrol in the vessel initially.
(a) $63 \%$
(b) $47 \%$
(c) $51 \%$
(d) $56 \%$
(e) $67 \%$
58. Aman can complete a piece of work in 36 days. Aman and Bhanu together can complete the same work in 20 days. If Chaman is working at $60 \%$ of Aman's efficiency, then find in how many days Aman, Bhanu and Chaman can complete the same work together.
(a) 15 days
(b) 19 days
(c) 9 days
(d) 26 days
(e) None of the above.
59. A lighthouse is situated 30 km away from the shore. If ratio of time taken by boat to reach lighthouse during upstream and during downstream is $2: 1$, then find the ratio of speed of the boat to the speed of the stream.
(a) $1: 3$
(b) $3: 1$
(c) $5: 3$
(d) $3: 5$
(e) $4: 7$
60. Ratio of curved surface area of hemispherical bowl to curved surface area of conical tent is $6: 5$ and radius of bowl and tent is equal. Then, find the ratio volume of conical tent to the volume of hemispherical bowl.
(a) $3: 2$
(b) $2: 3$
(c) $6: 7$
(d) $7: 6$
(e) $3: 4$
61. Average weight of 100 employees of a company is 60 kg . Average weight of male employees and female employees is 70 kg and 45 kg respectively. Then, find the ratio male employees to female employees in the company.
(a) $1: 4$
(b) $4: 1$
(c) $7: 6$
(d) $6: 7$
(e) $3: 2$
62. A shopkeeper who sells same marked price shirts, announced an offer - if one buys two shirts then the buyer can buy the third shirt at the discounted price of Rs. 150. Ram took the offer and bought 12 shirts by paying Rs. 5,000 only. Find the overall discount percentage allowed by the shopkeeper.
(a) $17 \frac{16}{33} \%$
(b) $29 \frac{10}{33} \%$
(c) $24 \frac{8}{33} \%$
(d) $36 \frac{{ }^{31}}{33} \%$
(e) $28 \frac{8}{33} \%$
63. Five two - way pipes A, B, C, D \& E can either fill the empty tank or can empty the full tank in 15 minutes, 18 minutes, 6 minutes, 16 minutes and 24 minutes respectively. All five pipes were opened simultaneously when the tank is empty. Then, find which combination of tank can exactly fill $50 \%$ of the tank.
(a) A, B and D are filling pipes and C is emptying pipe.
(b) A and B are filling pipes and C and D are emptying pipes.
(c) $E$ is filling pipe and $B$ and $C$ are emptying pipes.
(d) C and E are filling pipes and A is emptying pipe.
(e) None of the above.
64. Two dices are rolled twice. Then, find the probability that the sum of the numbers on each dice is divisible by 4 .
(a) $\frac{1}{4}$
(b) $\frac{7}{36}$
(c) $\frac{1}{6}$
(d) $\frac{1}{3}$
(e) $\frac{11}{36}$
65. Aman \& Bhanu invested Rs. 8,000 and Rs. 12,000 in a partnership firm. After 6 months, Aman further invested Rs. 12,000 . Aman is entited to $10 \%$ commission on profit before deducting tax and the remaining profit is shared between them in their capitals ratio after deducting 20\% tax. Bhanu received a total of Rs. 5400 out of total profits at the end of a year. Then, find Aman's commission.
(a) Rs. 1655
(b) Rs. 1625
(c) Rs. 1695
(d) Rs. 1745
(e) None of the above

Direction (66-70): Given pie charts shows percentage distribution of quantity of waste (org + wet) produced (in Kg ) on five days and percentage distribution of quantity of wet waste produced (in kg) on five days.


Waste $($ Dry + Wet $)=800$
Waste (Wet) $=500$
66. Dry waste produced on Saturday is $20 \%$ more than dry waste produced on Thursday. What is the quantity of dry waste produced on Monday and Saturday together?
(a) 80 kg
(b) 98 kg
(c) 120 kg
(d) 100 kg
(e) 95 kg
67. Dry waste produced on Tuesday is what percent of dry waste produced on Wednesday?
(a) $12 \frac{1}{47} \%$
(b) $12 \frac{12}{47} \%$
(c) $23_{47}^{23} \%$
(d) $25 \frac{25}{47} \%$
(e) $25 \frac{23}{47} \%$
68. What is the ratio of the dry waste produced on Friday to wet waste produced on Monday and Wednesday together?
(a) $23: 50$
(b) $14: 51$
(c) $13: 47$
(d) $50: 23$
(e) None of these
69. If on Sunday total waste produced is $120 \%$ more than the dry waste produced on Thursday and dry waste produced on Sunday is $20 \%$ less than dry waste produced on Monday. Find the quantity of wet waste produced on Sunday?
(a) 30 kg
(b) 38 kg
(c) 36 kg
(d) 24 kg
(e) None of these
70. Wet waste produced on Tuesday \& Wednesday together is how much more than dry waste produced on Friday and Thursday together?
(a) 82 kg
(b) 96 kg
(c) 78 kg
(d) 88 kg
(e) None of these
71. Retailer marks up an article $87 \frac{1}{2} \%$ above its cost price and he earned Rs. 250 when he gives $33 \frac{1}{3} \%$ discount. Had he sold that article at Rs 1200 . Then, find the discount percent allowed by the shopkeeper.
(a) $12 \frac{1}{2} \%$
(b) $20 \%$
(c) $36 \%$
(d) $25 \%$
(e) $30 \%$
72. Present age of Deepak is $16 \frac{2}{3} \%$ more than Bhavya age. While 5 yrs ago, Deepak's age was twice than that of Bhavya's age at that time. Five years hence, twice the sum of ages of Deepak and Bhavya is equal to Harsh's age at that time. Then, find present age of Harsh (in years).
(a) 46
(b) 43
(c) 41
(d) 42
(e) None of these
73. Honey can do $30 \%$ work in 9 days, Abhishek can do $8 \%$ work in 4 days. Then in how many days they can complete $80 \%$ of the work
(a) 18
(b) 12
(d) 10
(e) 15
74. A train coves certain distance in two parts. Distance covered in first part is $100 \%$ more than the distance covered in second part while speed of train is in the ratio 4:1 in first and second part respectively. If average speed of train is $20 \mathrm{~km} / \mathrm{hr}$ then, find the speed of train in first part? (in kmph)
(a) $10 \mathrm{~km} / \mathrm{hr}$
(b) $40 \mathrm{~km} / \mathrm{hr}$
(c) $20 \mathrm{~km} / \mathrm{hr}$
(d) $25 \mathrm{~km} / \mathrm{hr}$
(e) $60 \mathrm{~km} / \mathrm{hr}$
75. Find the probability of forming a 4 digit number which is divisible by 3 using $2,4,6$ and 5 , repetition of numbers are not allowed.
(a) 0 !
(b) $4!$
(c) 5 !
(d) None of these
(e) 3 !

Direction (76-80): Study the given passage and answer the following questions.
There are three types of vehicles i.e. 3 Auto, 4 car \& one truck which take rides. Distance covered by each type of vehicle per ride is same. Profit per ride of an auto and a car is given as Rs. 20 and Rs. 60 respectively. And total profit of truck in April month is given as Rs. 42000. Ratio of total ride per day of an auto to total ride per day of a car is $3: 2$. Ratio of per ride profit of a Truck to per ride profit of a Car is $70: 27$. And total profit is given as Rs 15920 per day.
76. What is difference in profit earned by all Cars and Truck in seven days?
(a) Rs. 56,440
(b) Rs. 54,120
(c) Rs. 64,120
(d) Rs. 72,240
(e) None of these
77. Profit made by Truck in two weeks is approximately what percent more or less than profit made in a week by all Auto?
(a) $29 \%$ more
(b) $34 \%$ less
(c) $24 \%$ more
(d) $39 \%$ less
(e) $43 \%$ more
78. What is the ratio of number of rides by single Car in four weeks to number of rides by Truck in two weeks?
(a) $44: 9$
(b) $22: 9$
(c) None of these
(d) $88: 9$
(e) $11: 9$
79. What is the average of profit made by all Car and all Auto in a week?
(a) Rs. 50,820
(b) Rs. 48,240
(c) Rs. 56,220
(d) None of these
(e) Rs. 64,120
80. What is the total profit of a single car, truck and auto in a day?
(a) Rs. 4860
(b) Rs. 5360
(c) Rs. 4240
(d) Rs. 5620
(e) None of these

Directions (81-90): Read the following passage carefully and answer the questions given below them. Certain words are given in bold to help you locate them while answering some of the questions.
At the first monetary policy statement of the Reserve Bank of India (RBI) for 2018-19, it seems impossible to believe that the previous bi-monthly on 7 February marked a high point in the relationship between the Union finance ministry and the RBI. There was on that date a regulatory add-on of a 180-day window of forbearance for payment dues from small borrowers, and abolition of loan limits in the MSME (medium, small and micro enterprises) segment. Those initiatives followed the supportive measures for the small-scale sector in the Union budget on 1 February, through the corporate tax cut, and additional funding for the Micro-units Development Refinance Agency (Mudra).
The appearance of team play was shattered after the Punjab National Bank (PNB) fraud broke in mid-February. The PNB fraud has variously been placed as having been in operation since 2011, perhaps even earlier. Union finance minister Arun Jaitley, speaking at the Economic Times Global Business Summit on 23 February, blamed the top management and auditors of PNB, but was also quoted as having added: "Regulators ultimately decide the rules of the game and regulators have to have a third eye which is to be perpetually open. But unfortunately in the Indian system, we politicians are accountable, the regulators are not."
RBI governor Urjit Patel came back forcefully on the occasion of a 14 March address at the Gujarat National Law University, pointing to the lack of ownership-neutrality in the Banking Regulation Act of 1949. The act as amended withholds the RBI from imposing certain types of penalties for errant conduct on public sector banks, like firing the chief executive officer, removing directors or superseding the board. The speech lists seven of them. Patel was right to have pointed them out, appropriately in an address to young entrants into the legal profession. That kind of unevenness in the regulatory landscape clearly has to be swept away.
The PNB fraud is said to have started rolling in 2011. As it happens, RBI that year appointed a high-level steering committee chaired by then deputy governor K.C. Chakraborty (a past chairman of PNB), to upgrade banking supervision to global best practices. Its report recommended that supervision be expanded in scope to go beyond a narrow focus on regulatory compliance or bank solvency, towards assessing the riskiness of a bank's operations, and its risk mitigation strategies. Independently, an inspection of select overseas branches
of Indian banks was also conducted in May 2012, the previous one having been done in May 2008, but the findings are not publicly known.
The Chakraborty Committee report was submitted in June 2012. Its recommendations were accepted, and the supervisory system overhauled on to a new risk-based supervision (RBS) platform. Training was initiated for senior officers of the major banks. The new framework went into operation in 2013-14, renamed SPARC (supervisory programme for assessment of risk and capital). An initial set of 28 banks from across the ownership spectrum, accounting for $60 \%$ of total banking assets, was covered that year. PNB may well have been among them. Eight more banks were added over the next two years, and by 2016-17, all scheduled commercial banks were covered. SPARC specifically calls for ongoing interaction between banks and supervisors, not just periodic inspections. Finally, there is a further overlay since 28 February 2017 of a standing committee on cyber security.
In a parallel development starting in 2012-13, memoranda of understanding (MoUs) were signed with 16 overseas regulators, which the annual report for that year says led to "substantial progress in supervisory information sharing and cooperation within jurisdictions where Indian banks are operating". By the close of reporting year 201617, the number of such MoUs had expanded to 40, and there was also a statement of cooperation with three US financial regulators. Since overseas jurisdictions were another point from which the PNB fraud could have been spotted, these agreements do not seem to have led to information exchange of any diagnostic value.
81. What benefits have been provided by the government to small borrowers?
(I) Allocation of additional funds.
(II) Abrogating the loan limits in the MSME segment.
(III) Government has extended the time period for small borrowers for payment of their dues.
(a) Only (I)
(b) Only (III)
(c) Both (II) and (III)
(d) Both (I) and (III)
(e) All are correct
82. What can be inferred from the statement, "we politicians are accountable, the regulators are not."?
(a) Only politicians need to take decisions for regulating the banks.
(b) RBI should not be held responsible for their ineffective regulation against frauds in PSU banks.
(c) In Indian system, politicians are made responsible for any type of fraudulent activity.
(d) Both (b) and (c)
(e) All are correct
83. Which type(s) of unevenness has/have been pointed out by RBI governor?
(a) appointment of high level supervision committee
(b) growing fraudulent activities and scams in banks.
(c) uncontrolled regulation in banks.
(d) imposing penalty on PSBs.
(e) All are correct
84. What are the efforts made by RBI to avoid the future loss in banks?
(I) turning towards privatization of banks.
(II) providing training to bank officials.
(III) updating supervisory system
(a) Only (I)
(b) Only (III)
(c) Both (II) and (III)
(d) Both (I) and (III)
(e) All are correct
85. Identify the tone of the author with respect to the passage.
(a) eulogistic
(b) informal
(d) critical
(e) didactic
86. According to the passage, the new framework SPARC includes
(a) to upgrade banking supervision to global standards.
(b) interaction between banks and supervisors.
(c) enhancing cyber security of scheduled commercial banks
(a) Only (I)
(b) Only (III)
(c) Both (II) and (III)
(d) Both (I) and (III)
(e) All are correct

Directions (87-88): Choose the word which is most similar in meaning to the word printed in bold in the context of the passage.
87. Perpetually
(a) abate
(b) constantly
(c) dissent
(d) harness
(e) stride
88. Forbearance
(a) banish
(b) cease
(c) recuperate
(d) usurp
(e) tolerance

Directions (89-90): Choose the word which is most opposite in meaning of the word printed in bold in the context of the passage.
89. Overhaul
(a) ensue
(b) accede
(c) acquiesce
(d) ruin
(e) hapless
90. Supersede
(a) herald
(b) confide
(c) concede

Directions (91-95): In each question, the word at the top of the table is used in four different ways, numbered (a) to (d). Choose the option in which the usage of the word is INCORRECT or INAPPROPRIATE. If it is used correctly in every sentence choose option (e) as your choice.
91. APPRAISE
(a) The President appropriately appraised Russell and Financial Times readers that he had already signed into law the National Peace and Reconciliation Commission Act.
(b) In cooperation with other professionals, social workers will appraise the individual's needs.
(c) He coolly appraised the situation, deciding which person would be most likely to succeed.
(d) This prompted many employers to appraise their selection and recruitment policies
(e) All are correct.
92. CREDULOUS
(a) Because my brother is a credulous consumer, he is a salesperson's dream.
(b) Even though there was very little evidence, the credulous jury decided the defendant was guilty.
(c) Reference credulous sources to strengthen your argument.
(d) Because the credulous public wanted to believe the killer was off the streets, they never questioned the arrest of an innocent man.
(e) All are correct.
93. FLAUNT
(a) While many people love to flaunt their possessions, I prefer people that keep a low profile.
(b) The orchestra decided to flaunt convention/tradition, and wear their everyday clothes for the concert.
(c) Donald Trump loves to flaunt his wealth and grandiose, whenever he has the chance.
(d) Flavio was flaunting his $\tan$ in a pair of white trunks.
(e) All are correct.
94. UNBEARABLE
(a) A delegation of councillors is lobbying the Government because they say the noise is unbearable.
(b) This argument is unbearable from an intellectual, moral and practical standpoint.
(c) All I remember of childbirth was the unbearable pain and the relief when it was all over.
(d) The grief she felt over Helen's death was almost unbearable.
(e) All are correct.
95. LUXURIANT
(a) We've bought a wonderfully luxuriant carpet for our bedroom.
(b) In addition to its inferior size, the coyote is also shorter in the leg than the wolf, and carries a more luxuriant coat of hair.
(c) This stretch of land was once covered with luxuriant forest, but is now bare.
(d) He took no leading part in the war against the English, his energies being largely occupied with the satisfaction of his artistic and luxuriant tastes.
(e) All are correct.

Directions (96-102): In each of the following questions, various sentences are given and you have to choose the one which has some or any grammatical error in it. In the questions where option (e) is all are correct and all the sentences are grammatically correct choose option (e) as the correct choice.
96. (a) The potassium found in potatoes is said to reduce cholesterol level, blood pressure and controls heart problems.
(b) The calcium and magnesium content in potatoes can help ease rheumatism.
(c) Health experts and nutritionists say that turnip juice has more Vitamin C than orange juice.
(d) To watch even a single plant grow from seedling to small and big with more leaves each day and find them flowering and giving fruits can give you happiness untold.
(e) All are correct.
97. (a) Everyone who desires to participate in the good to be obtained must share in the act.
(b) As we have seen above, all must participate that none may be in a position to reproach the rest.
(c) While Dean had no desire to participate in the new and perilous sport of ice climbing, he didn't share Cynthia total perplexity at why a sane human being would even consider subjecting himself or herself to such uncomfortable danger.
(d) They were dressed like the others, and seemed to participate in the general joy.
(e) He being the best student in the class, Gopal was chosen to participate in the competition.
98. (a) There is no end of 'paddies' along this river, and I'm sure they cannot understand your lingo.
(b) Knowledge of regional language is necessary for bank officers because they are to understand what their customers say.
(c) This was one point at which we touched, and which went far to enable me to understand him.
(d) Am I to understand that you have no intention of respecting my wishes in this matter?
(e) All are correct.
99. (a) Today he revealed the fact that he was angry on me because I had not helped him.
(b) There was but one person likely to know all Mr. Topsparkle's secrets, and he would be unlikely to reveal them.
(c) The study revealed the toxic effects of the pollutant.
(d) It was almost as if he were shutting Felipa off before she could reveal something.
(e) All are correct.
100. (a) I paused for a moment to have a full view of this notorious criminal.
(b) I know that several of my readers may remind me of Sir Boyle Roche, whose bulls have become not only notorious, but proverbial.
(c) The man who was blind with the right eye was a notorious criminal of this area.
(d) Many of the pretended magnetizers were notorious libertines, who took that opportunity of gratifying their passions.
(e) All are correct.
101. (a) He won't lose his mate, even if he chooses to kill her rather than give her up.
(b) Her skin began to flush until it was pink enough to look human rather than the sleep of the dead.
(c) Ordinarily when in difficulty Renu prefers keeping her counsel rather than going about here and there for advice.
(d) Maybe he'd rather listen than talk.
(e) All are correct.
102. (a) Only 6 crore out of 29 crore persons holding permanent account number (PAN) file income tax returns at present.
(b) Only three out of a thousand are born with this rare disease.
(c) So, with a snort and a neigh and a whisk of his short tail he trotted off the roof into the air and at once began floating downward to the street.
(d) The mark of these technologies is that they are greeted with universal skepticism at first.
(e) All are correct.

Directions (103-107): Given below are five sentences of a paragraph in a jumbled fashion. Arrange the sentences to form a coherent paragraph and answer the following questions.
(A) It plans to use this for the Chandrayaan-II moon mission in the early months of 2019.
(B) The multi-band, multi-beam satellite can cater to the communication needs of people in Jammu and Kashmir and the Northeast.
(C) With a liftoff mass of 640 tonnes, the GSLV MkIII is the heaviest launch vehicle made in India, and GSAT29 is the heaviest satellite to take off from Indian soil.
(D) The Geosynchronous Satellite Launch Vehicle MarkIII (GSLV Mk III) launched GSAT29, an advanced communications satellite, into a geosynchronous transfer orbit where the satellite's closest approach to earth would be 190 km and the farthest $35,975 \mathrm{~km}$.
(E) The Indian Space Research Organization has marked a big milestone by successfully testing its heavy-lift launcher while launching an advanced communication satellite.
103. What should be the last sentence of the sequence?
(a) D
(b) A
(c) B
(d) C
(e) E
104. What should be the SECOND sentence of the sequence?
(a) D
(b) A
(c) B
(d) C
(e) E
105. What should be the FOURTH sentence of the final sequence?
(a) A
(b) E
(c) D
(d) B
(e) C
106. What should be the THIRD sentence of the final sequence?
(a) D
(b) A
(c) C
(d) B
(e) E
107. What should be the FIRST sentence of the final sequence?
(a) C
(b) D
(c) B
(d) E
(e) A

Directions (108-110): In the following questions, a sentence is divided into four parts consisting of a highlighted word in each part. Choose the option reflecting the word which is either misspelt or grammatically incorrect. If all the highlighted words are correct, choose option (e) i.e. "all are correct" as your answer choice.
108. The Monetry Policy Committee / of India is a committee of the Reserve Bank of India/ that is responsible for fixing the / benchmark interest rate in India.
(a) Monetry
(b) Reserve
(c) Responsible
(d) Interest
(e) All are correct
109. Trade wars can easily / lead to confrontation, which may / result in impulsive / behviour and misjudgment.
(a) Trade
(b) Confrontation
(c) Impulsive
(d) Behviour
(e) All are correct
110. Saudi Arabia signalled its discomfort / with the faling prices / and hinted at a fresh cut / of one million barrels a day.
(a) Signalled
(b) Faling
(c) Hinted
(d) Barrels
(e) All are correct

Directions (111-120): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. Find out the appropriate word which fits into the blank appropriately.

The theory that authoritarian governments can __(111) policy consensus more easily than multiparty democracies holds some ___(112)__. Critical reforms in a country like India are often ___(113) by the political conflict $\qquad$ (114) $\qquad$ in the democratic process. But if that were the whole story, then all dictatorships would be economic powerhouses. The case of Asia's hyper-growth economies suggests what is important isn't ___(115)___ itself, but what policies the autocrat chooses to impose-and, more importantly, to whom he listens.

Historically, Asia's most successful strongmen have all benefited from $\qquad$ (116) _ sound economic guidance.
In South Korea, long-serving ruler Park Chung-hee
$\qquad$ (117) $\qquad$ that top economic posts be filled by highly
$\qquad$ economists and other professionals. As one study put it, "Though political agencies in the early Park regime were $\qquad$ (119) $\qquad$ by the military, economic agencies generally were not. Rather, under Park the $\qquad$ (120) _ o of economics experts in the Korean government rose considerably."
111. (a) impose
(b) deliver
(c) give
(d) urge
(e) demand
112. (a) fault
(b) belief
(c) merit
(d) payment
(e) attraction
113. (a) enlightened
(b) clasp
(c) abet
(d) joined
(e) stymied
114. (a) invested
(b) engrained
(c) chisel
(d) defined
(e) erode
115. (a) autocracy
(b) calamity
(c) racism
(d) democracy
(e)brutality
116. (a) commonly
(b) remarkably
(c) odd
(d) higher
(e) violently
117. (a) endured
(b) acquired
(c) insisted
(d) pretended
(e) argued
118. (a) amateurish
(b) master
(c) whole
(d) trained
(e) expert
119. (a) followed
(b) ordered
(c) oppressed
(d) direct
(e) dominated
120. (a) feature
(b) report
(c) status
(d) phase
(e) place

## REASONING ABILITY

Directions (1-5):


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

Directions (6-10):

6. (c);
7. (b);
8. (a);
9. (d);
10. (c);

Directions (11-15):

| Designation | Person | City |
| :--- | :--- | :--- |
| Clerk | K | Shimla |
| PO | P | Mangalore |
| AM | M | Kochi |
| MG | N | Thrissur |
| DGM | J | Gwalior |
| GM | L | Cuttack |

11. (a);
12. (d);
13. (d);
14. (a);
15. (e);

Directions (16-18):
G $>\mathrm{F}>\mathrm{C}>\mathrm{E}>\mathrm{H}(9$ litre $)>\mathrm{D}$
16. (d);
17. (b);
18. (a);

Directions (19-20):

19. (d);
20. (b);

Directions (21-25):

| Persons |
| :---: |
| L |
| N |
| T |
| H |
| R |
| M |
| G |
| A |
| Q |
| C |
| B |

21. (b);
22. (d);
23. (a);
24. (a);
25. (c);

Directions (26-29):
26. (b); From I,

$$
\begin{aligned}
& >\mathrm{N} \ggg \& \mathbf{O}>\mathrm{P} / \mathrm{Q}, \mathrm{M}>\mathrm{P} \\
& \text { From II, } \\
& \mathbf{O}>\mathrm{P}>\mathrm{Q}>\mathrm{N}>\mathrm{M}
\end{aligned}
$$

27. (e); From I and II,

28. (c); From I,

| Floors | Person |
| :--- | :--- |
| $\mathbf{5}$ | V |
| $\mathbf{4}$ | W |
| $\mathbf{3}$ | U |
| $\mathbf{2}$ | X |
| $\mathbf{1}$ | Y |

From II,

| Floors | Person |
| :--- | :--- |
| $\mathbf{5}$ | U |
| $\mathbf{4}$ | V |
| $\mathbf{3}$ | W |
| 2 | X |
| $\mathbf{1}$ | Y |

29. (d); From I,

Case 1


Case 2


From II,

30. (c); 25 wrong 39 sing 60 pen 84 full.

Directions (31-34):

31. (e);
32. (c);
33. (b);
34. (e);
35. (e);

Directions (36-39):

| Month | Person 1 | Person 2 | Person 3 |
| :---: | :---: | :---: | :---: |
| January | $\mathrm{Q}(19)$ | $\mathrm{S}(27)$ | $\mathrm{P}(30)$ |
| June | $\mathrm{T}(25)$ | $\mathrm{V}(26)$ | $\mathrm{U}(29)$ |
| December | $\mathrm{X}(16)$ | $\mathrm{W}(18)$ | $\mathrm{R}(31)$ |

36. (e);
37. (d);
38. (b);
39. (a);
40. (e);


## QUANTITATIVE APTITUDE

41. (a); Let total no. of mails received in inbox of $K$ be ' $a$ '. Average no. of mails received in inbox by X, Y \& $K=\frac{750}{100} \times$ (average no. of spam mails received
$\begin{aligned} \frac{725+840+a}{3} & =\frac{750}{100} \times\left(\frac{88+82+92}{3}\right) \\ 1565+a & =\frac{750}{100} \times 262^{3}\end{aligned}$
$1565+\mathrm{a}=\frac{750}{100} \times 262$
$\mathrm{a}=1965-1565 \Rightarrow \mathrm{a}=400$
Required total $=400+92=492$
42. (a); Inbox mails read by user $Z=\frac{125}{100} \times 92=115$

Required $\%=\frac{115}{800} \times 100=14.375 \%$
43. (d); Inbox mails read by user $X \& Y$ together
$=\frac{725}{100} \times 68+\frac{840}{100} \times 65=493+546=1039$
Required difference $=1039-(88+82)$
$=869$ more
44. (e); Total mails received in inbox by $\mathrm{K}=3 \times 88=264$

Total mails received by $\mathrm{K}=264+92=356$
Total no. of inbox mails read by user X
$=725 \times \frac{68}{100}=493$
Required $\%=\frac{356}{493} \times 100 \approx 72 \%$
45. (d); Inbox mails which are read by user $Z$
$=800-\frac{250}{100} \times 88=580$
Required average $=\frac{580+840 \times \frac{65}{100}}{2}$
$=\frac{580+546}{2}=\frac{1126}{2}=563$
46. (e); $\underset{1 \sim 1=8, ~}{\text { From } I} \& \mathrm{Ii}=3$
$\bar{B}$ ut $\bar{y}^{\prime}$ is is ${ }^{\overline{3}}$ not given that either $x$ is greater or $y$
$\therefore$ we cannot determine.
47. (d); From I

2 men $=3$ women
From II
16 men can complete the work in 10 days
$\therefore$ From I and II no. of women can be find.
48. (d); From I \& II

$$
\begin{aligned}
& \angle \mathrm{DBC}=\angle \mathrm{CDB} \\
& \angle \mathrm{CDB}=\angle \mathrm{DAB}+\angle \mathrm{ABD} \\
& \angle \mathrm{ABD}=\angle \mathrm{CDB}-\angle \mathrm{DAB} \\
& \angle \mathrm{ABD}=\angle \mathrm{DBC}-\angle \mathrm{DAB} \\
& \angle \mathrm{ABD}=(\angle \mathrm{ABC}-\angle \mathrm{ABD})-\angle \mathrm{DAB} \\
& 2 \angle \mathrm{ABB}=\angle \mathrm{ABC}-\angle \mathrm{DAB}(\angle \mathrm{DAB}=\angle \mathrm{BAC}) \\
& \therefore \angle \mathrm{ABD}=15^{\circ} .
\end{aligned}
$$

49. (b); From I

Sum cannot be find out as rate is not given.
From II
Difference $=\frac{{ }^{P_{R}}{ }^{2}[ }{100^{2}}\left[\begin{array}{l}\mathrm{P}\end{array} \rightarrow\right.$ Sum $]$
$\mathrm{P}=$ Rs. 10,000
$\therefore$ CI can be find out.

## 50. (e); From I \& II

Cannot be determined even after both statement.
51. (a); Required plot $=\frac{1800 \times 2200}{2400}=1650$ sq.feet
52. (d); Required price per sq. feet in 2017
$=2400 \times \frac{120}{100}=$ Rs. 2880
53. (c); Required ratio $=\frac{1840 \times 2600}{1640 \times 1000}=598: 205$
54. (e); Required difference

$$
\begin{aligned}
& =2240 \times 1400-2240 \times 1400 \times \frac{3}{4} \\
& =2240 \times 1400\left[\frac{1}{4}\right]=\text { Rs. } 784000
\end{aligned}
$$

55. (d); Required average
$=\frac{2420 \times 2400+1640 \times 1800}{2}=4380000=$ Rs. 43.8 lakh
56. (d); Let the tens digit and units digit of first number be
' x 1 \& 'y1' respectively.
So, original number $=10 \times \mathrm{x}_{1}+\mathrm{y}_{1}$
Then, reversed number $=10 \times y_{1}+x_{1}$
Let the tens digit and units digit of second number be ' $x_{2}{ }^{\prime}$ \& ' $y_{2}$ ' respectively.
A乌 Second number $=10 \times x_{2}+y_{2}$
$10 \times \mathrm{y}_{1}+\mathrm{x}_{1}=\frac{3}{4}\left(10 \times \mathrm{x}_{2}+\mathrm{y}_{2}\right)$
Now,
$\left(\mathrm{x}_{2}\right)^{\prime}-\left(\mathrm{y}_{2}\right)^{2}=20$
$\left(\mathrm{x}_{2}+\mathrm{y}_{2}\right)\left(\mathrm{x}_{2}-\mathrm{y}_{2}\right)=20$
Now, equation (ii) can have factors $(10 \times 2)(5 \times 4)$ \& $(20 \times 1)$
But by substitution, one will find that only $(10 \times 2)$ satisfies the equation (ii)
Now,
$\left(\mathrm{x}_{2}+\mathrm{y} 2\right)=10$
$\& \mathrm{X}_{2}-\mathrm{y}_{2}=2$
Adding (iii) \& (iv)
$x_{2}+y_{2}=10$
$x-y=2$
$2=12$
$x_{2}=6$
Put value of $=x_{2}$ in (iii)
$6+\mathrm{y}_{2}=10$
$\mathrm{y}_{2}=4$
So, second number $=10 \times 6+4=64$
Put, value of $\mathrm{x}_{2} \& \mathrm{y}_{2}$ in (i)
$10 \times y_{1}+x_{1}={ }_{4}(64)=48$
So, original number $=84$
57. (d); When $20 \%$ of petrol is replaced by kerosene oil:

Quantity of petrol in the mixture $=25-25 \times \frac{20}{100}$
$=20$ liters
Quantity of kerosene oil in the mixture $=25-20$
$=5$ liters
When $30 \%$ of mixture is replace by kerosene oil:
Quantity of petrol in the mixture $=20-20 \times \frac{30}{100}$
= 14 liters
Quantity of kerosene oil in the mixture $=25-14$
$=11$ liters
Required \% $=\frac{14}{25} \times 100=56 \%$
58. (a);

59. (b); Let speed of the boat be 'a' km/hr and speed of stream be 'b' km/hr.
And let time taken by boat to reach lighthouse during upstream and during downstream be ' $2 x^{\prime}$ \& ' x ' respectively.
ATQ,
$a+b=\frac{30}{x}$
$\Rightarrow \mathrm{x}=\frac{\frac{\mathrm{x}}{30}}{(\mathrm{a}+\mathrm{b})}$
And $(\mathrm{a}-\mathrm{b})=\frac{30}{2 \mathrm{x}}$
$\Rightarrow \mathrm{x}=\frac{30}{2(\mathrm{a}-\mathrm{b})}$
From (i) \& (ii)
$\frac{30}{(a+b)}=\frac{30}{2(a-b)}$
$2 \mathrm{a}-2 \mathrm{~b}=\mathrm{a}+\mathrm{b}$
$\mathrm{a}=3 \mathrm{~b}$
$\frac{a}{\bar{b}}=\frac{3}{1}$
$a: b=3: 1$
60. (b); Let radius of hemisphere bowl \& conical tent be ' $r$ ' And, slant height of conical tent be 'l'
Sol.
$\frac{2 \pi \mathrm{r}^{2}}{\pi \mathrm{r} P}=\frac{6}{5} \Rightarrow \frac{2 \mathrm{r}}{P}=\frac{6}{5} \Rightarrow \frac{\mathrm{r}}{P}=\frac{3}{5}$
Let radius and slant height be ' $3 x^{\prime}$ \& ' 5 x' respectively.
$\mathrm{h}=\sqrt{P^{2}-\mathrm{r}^{2}}$
$h=\sqrt{(5 x)^{2}-(3 x)^{2}}$
$h=4 x$

$=\frac{4 \mathrm{x}}{3} \times \frac{3}{2 \times 3 \mathrm{x}}=\frac{12 \mathrm{x}}{18 \mathrm{x}}=\frac{2}{3} \quad \Rightarrow \quad 2: 3$
61. (e); Let number of male \& female employees is ' $x$ ' \& ' $y$ ' respectively.
ATQ,
$x+y=100$
And,
$70 x+45 y=60 \times 100$
$70 x+45 y=6000$
$14 \mathrm{x}+9 \mathrm{y}=1200$
Multiply (i) by 9
$9 x+9 y=900$
Subtract (iii) from (ii)
$14 x+9 y=1200$

| $9 x+9 y=900$ |
| :---: |
| $5 x=300$ |

$$
x=60
$$

Put value of $x$ in (i)
$60+y=100$
$y=40$
Required ratio $=\frac{60}{40}=\frac{3}{2}=3: 2$
62. (c); Let marked price of a shirt be Rs. x.

ATQ,
$8 x+150 \times 4=5000$
$8 x=4400$
$\mathrm{x}=$ Rs. 550

Required $\%=\frac{{ }_{6600}}{} \times 100=\frac{1600}{66}=24 \frac{{ }_{3}^{8}}{33} \%$
63. (e);

Pipes Time Efficiency Total work


So, going through options, you will find that the tank will not be filled exactly $50 \%$ in any of the options.
64. (a); Total number of outcomes $=36$
$P(E)=\{(1,3)(2,2)(2,6)(3,1)(3,5)(4,4)(5,3)$, $(6,2)(6,6)$

So, Required probability $=\frac{\mathrm{P}(\mathrm{E})}{\mathrm{N}}=\frac{9}{36}=\frac{1}{4}$
65. (b); Let profit before deducting Aman's commission Ratio of capitals of Aman \& Bhanu
$=\frac{6 \times 12000+12 \times 8000}{12 \times 12000}=\frac{168000}{144000}=7: 6$
Profit after deducting tax $=\left(x-\frac{10}{100} \times x\right) \times \frac{80}{100}$
$=\frac{9 \mathrm{x}}{10} \times \frac{80}{100}=\frac{18 \mathrm{x}}{25}{ }_{18 \mathrm{x}} 6$
Bhanu's share ${ }^{10}=\frac{18 x}{25} \times{ }^{6}{ }_{\overline{13}}$
$5400=\frac{18 \mathrm{x}}{25} \times \frac{6}{25^{13}}$
$x=5400 \times \frac{25}{18} \times \frac{13}{6}=$ Rs. 16,250
So, Aman's commission $=16,250 \times \frac{10}{100}=$ Rs. 1,625
66. (b); Dry waste produced on Thursday $=\frac{800 \times 15}{100}-\frac{16 \times 500}{100}$
$=120-80=40 \mathrm{~kg}$
Dry waste produced on Saturday $=\frac{120}{100} \times 40$
$=48 \mathrm{~kg}$
Dry waste produced on Monday $=\frac{{ }^{20 \times 800}}{100}-\frac{22 \times 500}{100}$
$=160-110=50 \mathrm{~kg}$
Total sum $=50+48=98 \mathrm{~kg}$
67. (d); Dry waste on Tuesday $=\frac{18 \times 800}{100}-\frac{24 \times 500}{100}$
$=144-120=24 \mathrm{~kg}$
$=144-120=24 \mathrm{~kg}$
Dry waste on Wednesday $=\frac{23 \times 800}{100}-\frac{18 \times 500}{100}$
$=184-90=94 \mathrm{~kg}$
Required $\%=\frac{24}{94} \times 100=\frac{1200}{47} \%=25 \frac{25}{47} \%$
68. (a); Dry waste on Friday $=\frac{24 \times 800}{100}-\frac{20 \times 500}{100}=92 \mathrm{~kg}$

Wet waste on Monday and Wednesday
together $=\frac{22+18}{100} \times 500=200 \mathrm{~kg}$
Ratio $=\frac{92}{200}=\frac{23}{50}$
69. (e); Dry waste produced on Thursday
$=\frac{15 \times 800}{100}-\frac{16 \times 500}{100}=40 \mathrm{~kg}$
Total waste produced on Sunday $=40 \times \frac{220}{100}=88 \mathrm{~kg}$
Dry waste produced on Monday
$=\frac{20 \times 800}{100}-\frac{22 \times 500}{100}=160-110=50 \mathrm{~kg}$
Dry waste produced on Sunday $=\frac{4}{5} \times 50$
$=40 \mathrm{~kg}$
Wet waste produced on Sunday $=88-40=48 \mathrm{~kg}$
70. (c); Wet waste on Tuesday \& Wednesday together
$=\frac{(24+18)}{100} \times 500=210$
Dry waste on Thursday and Friday together
$=\frac{(24+15)}{100} \times 800-\frac{(20+16)}{100} \times 500=132 \mathrm{~kg}$
Required difference $=210 \mathrm{~kg}-132 \mathrm{~kg}=78 \mathrm{~kg}$
71. (c); ATQ,
$87 \frac{1}{2} \%=\frac{7}{8}$
Let, $\mathrm{CP}=8 \mathrm{x}$
Then MRP $=(8+7)=15 x$

And SP $=15 \mathrm{x} \times \frac{2}{3}=10 \mathrm{x}$
Profit $=10 x-8 x=2 x$
ATQ, $2 \mathrm{x}=250 \Rightarrow \mathrm{x}=125$
S.P. $=1250$, M.R.P $=1875$

If he folfoldarticle at Rs ${ }_{6} 1200$ the discount $\%$
$=$ $\qquad$ $\times 100=\frac{675}{1875} \times 100=36 \%$
72. (c); Ratio of present age of Deepak to Bhavya $=7: 6$

Ratio of age of Deepak to Bhavya 5 years ago $=2: 1$
Let, age of Deepak and Bhavya 5 years ago were $=$ 2 x and x respectively.
ATQ,
$\frac{2 \mathrm{x}+5}{\substack{\mathrm{x}+5 \\ \mathrm{x}=1}}=\frac{7}{6} \Rightarrow 12 \mathrm{x}+30=7 \mathrm{x}+35$
present age of Harsh $=2(2 x+10+x+10)-5$
$=46-5=41$ years
73. (e); Honey can do complete work in $=\frac{9}{30} \times 100$
$=30$ days
Abhishek can do complete wok in $=\frac{4}{8} \times 100$
$=50$ days
Let total work $=150$
Ratio of efficiency of Harry to Abhishek = $\frac{150}{30}: \frac{150}{50}$ = $5: 3$
Time period $=\frac{150 \times \frac{80}{100}}{8}=15$ days
74. (b);

Ipart IIpart
let Distance $2 \mathrm{x} \quad \mathrm{x}$
let Speed 4y y
Average speed $=\frac{\text { total Distance }}{\text { Total Time }}=\frac{3 x}{\frac{z x}{x}+\frac{x}{y}}=20$
On solving y $=10$
Speed in Ist part $=40 \mathrm{kmph}$
75. (d); A number is divisible by 3 , only when sum of its digits is divisible by 3 . But sum of $2,4,5 \& 6$ is 17 . So, no 4 digits number can be formed using $2,4,5$ $\& 6$.

## Sol (76-80)-

Let total ride per day of an auto and total ride per day of a car be 3 x and 2 x respectively.
ATQ,
$3 \times 20 \times 3 x+4 \times 60 \times 2 x+\frac{42000}{30}=15920$
$180 \mathrm{x}+480 \mathrm{x}+1400=15920$
$660 x=14520$
$\mathrm{x}=22$
$\therefore$ No. of rides per day taken by an Auto \& a Car is $66 \& 44$ respectively.
Let no. of rides of truck per day be a
$\frac{\text { profit per ride of truck per day }}{\text { profit per ride of a car per day }}=\frac{\frac{1400}{a}}{60}=\frac{70}{27}$
$\therefore \mathrm{a}=9$
$\therefore$ no. of rides taken by truck per day $=9$

| Vehicle | No. of <br> Vehicle | Total no. of rides <br> per day per vehicle | profit in a <br> day |
| :---: | :---: | :---: | :---: |
| Car | 4 | 44 | 10560 |
| Auto | 3 | 66 | 3960 |
| Truck | 1 | 9 | 1400 |

76. $\mathbf{( c ) ; ~ R e q u i r e d ~ d i f f e r e n c e ~}=(10560-1400) \times 7$
= Rs. 64,120
77. (a); Profit of Truck in two weeks $=1400 \times 14$
= Rs. 19600
Profit of all auto in a week $=3960 \times 7=$ Rs. 27720
Required $\%=\frac{27720-19600}{27720} \times 100$
$={ }^{812000} \approx 29 \%$ more
27720
78. (d); Required ratio $=\frac{44 \times 28}{9 \times 14}=88: 9$
79. (a); Required Average $=\frac{1}{2}[10560 \times 7+3960 \times 7]$ = Rs. 50,820
80. (b); Required total $=\frac{10560}{4}+\frac{3960}{3}+\frac{1400}{1}$
$=2640+1320+1400=$ Rs. 5360

## ENGLISH LANGUAGE

81. (e); All the sentences are correct. Government in the budget this year has announced the additional funding to Mudra, add-on of a 180-day window of forbearance for payment dues from small borrowers and abolition of loan limits in the MSME. Hence option (e) is the correct choice.
82. (d); As mentioned in second paragraph of the passage that finance minister highlighted the responsibilities of regulators of PSU banks i.e. RBI. Here unfortunately determines the negative point that politicians are made responsible for frauds and scams in banks rather than regulators. Hence option (d) is the correct choice.
83. (d); Refer the third paragraph of the passage.
84. (c); Refer the first few lines of second paragraph "Training was initiated for senior officers of the major banks." "the supervisory system overhauled on to a new risk-based supervision (RBS) platform.".
85. (d); The author has given deep analysis of decision of RBI governor Urjit Patel regarding monetary policy, with a neutral outlook. Hence 'critical' is the correct tone of the author.
86. (e); All of the sentences are correct. Refer to fourth and fifth paragraphs of the passage.
87. (b); Perpetually means never ending or changing, having same meaning as constantly.
Abate means becoming less intense. Dissent means disagreement.
Stride means a decisive step, advance, proceed.
88. (e); Forbearance means patient self-control; restraint and tolerance, having same meaning as tolerance.
Recuperate means recover or regain.
Usurp means take illegally or by force.
89. (d); Overhaul means take apart (a piece of machinery or equipment) in order to examine it and repair it if necessary. Hence it has the opposite meaning to

## ruin.

Ensue means happen or occur afterwards or as a result.
Acquiesce means accept something reluctantly but without protest.
Hapless means unfortunate.
90. (e); Supersede means take the place of (a person or thing previously in authority or use); supplant.
Hence it has the opposite meaning to retain.
Relinquish means voluntarily cease to keep or claim; give up.
Concede means admit or agree that something is true after first denying or resisting it.
Herald means a person or thing viewed as a sign that something is about to happen.
Confide means tell someone about a secret or private matter while trusting them not to repeat it to others.
91. (a); Option (a) is incorrect as apprised should be used here.
Appraise means to ascertain the value of and does not mean to apprise or to inform. Correct: "I appraised the jewels." / "I apprised him of the situation."
92. (c); Option (c) is incorrect as credible should be used in place of credulous.
Credible means believable and does not mean credulous or gullible. Correct: "His sales pitch was not credible." / "The con man took advantage of credulous people."
93. (b); In option (b) the use of flaunt is incorrect and must be replaced with flout.
Flaunt means to show off and does not mean to flout. Correct: "She flaunted her abs." / "She flouted the rules."
94. (b); In option (b) the use of unbearable is incorrect and untenable should be used instead.
Untenable means indefensible or unsustainable and does not mean painful or unbearable. Correct: "Now that all the facts have been revealed, that theory is untenable." / "Her death brought him unbearable sadness."
95. (d); Option (d) is incorrect as luxuriant should be replaced with luxurious.
Luxuriant means abundant or florid and does not mean luxurious. Correct: "The poet has a luxuriant imagination." / "The car's fine leather seats were luxurious."
96. (e); All the given sentences are grammatically correct.
97. (e); In this sentence, use of 'He' is superfluous as the subject of 'Being' is 'Gopal'. It is to be noted that whenever a sentence containing Participle is used with only one Subject which does dual work, then a Subject is not required before Participle.
e.g. Being tired, he sat down. [= As he was tired, he sat down.]
98. (b); Replace "Knowledge of regional language" by "The knowledge of a regional language" as generally "The + Noun + of + Noun" is used. Also, 'regional language' is a Singular Countable Noun. So 'a' will be used before 'regional language'. Hence the correct form of the sentence should be - The knowledge of a regional language.
99. (a); Use 'with' in place of 'on' as "angry with somebody" and "angry at something" are the correct usage.
e.g. He is angry with you.

He is angry at your behavior.
100. (c); Replace 'with' by 'an' as "blind in the right eye/the left eye" is used while "blind with both the eyes" is the correct usage.
101. (c); Use 'to' in place of 'rather than' as when two nouns or gerunds are compared using the word 'prefer', the preposition 'to' is used. e.g. She preferred playing to gossiping.
However when 'prefer' is used to compare two infinitives, 'rather than' is used instead of 'to'. e.g. We preferred to read rather than write.
102. (e); All the given sentences are grammatically correct.
103. (c); The correct arranged form of the given paragraph is EADCB. Hence (B) must be the last sentence of the paragraph. This is because it concludes the paragraph which talks about GSLV Mk III that is it talks about its applications and uses among which one is catering to the needs of the people in J\&K and the Northeast by the help of communication.
104. (b); Option (b) is the appropriate choice as the answer. (A) is the second statement of the paragraph when it will be arranged in a coherent way. The sentence starts with 'It' which means something has to be mentioned beforehand about which we are talking so it will be second sentence that is ISRO which plans to use this for the Chandrayaan-II moon mission in the early months of 2019.
105. (e); Option (e) is the correct choice as the answer. (C) will be the fourth sentence when the paragraph is arranged in a coherent way. The sentence that precedes sentence (C) is sentence (D) which mentions about satellite GSLV where the satellite's closest approach to earth would be 190 km and the farthest $35,975 \mathrm{~km}$. So after (D) it must be (C),as statement (C) refers the details about GSLV.
106. (a); Option (a) is the most correct choice as the answer. The correct sequence of arrangement of paragraph is EADCB.
107. (d); Option (d) is the most suitable choice as the answer of the option. The first sentence is the opening line of the sentence which gives introduction to the paragraph which is that The Indian Space Research Organization (ISRO) has marked a big milestone by successfully testing its heavy-lift launcher while launching an advanced communication satellite.
108. (a); The highlighted word in the first part is incorrectly spelled as "Monetry". However, the precise spelling of the word in "Monetary" and it means relating to money or currency. All the other words have been spelt correctly and are in appropriate grammatical syntax. Hence, option (a) is the most suitable answer choice.
109. (d); The highlighted word in the fourth part is incorrectly spelled as "behviour". However, the precise spelling of the word in "behaviour" or "behavior" and it means the way in which one acts or conducts oneself, especially towards others. All the other words have been spelt correctly and are in appropriate grammatical syntax. Hence, option (d) is the most suitable answer choice.
110. (b); The highlighted word in the first part is incorrectly spelled as "faling". However, the precise spelling of the word in "falling" and it means move from a higher to a lower level, typically rapidly and without control. All the other words have been spelt correctly and are in appropriate grammatical syntax. Hence, option (b) is the most suitable answer choice.
111. (a); "impose" is the most appropriate word in the context of its meaning to the sentence. It is to be noted that the sentence is talking about the authoritarian governments, so the word "impose" makes the sentence more meaningful. Hence option (a) is the correct choice.
Impose means force (an unwelcome decision or ruling) on someone.
Urge means try earnestly or persistently to persuade (someone) to do something.
112. (c); "merit" is the most appropriate word that fits into the provided space adding meaning to the sentence. Other words do not give a contextual
essence to the sentence. Hence option (c) is the correct choice.
Merit means the quality of being particularly good or worthy, especially so as to deserve praise or reward.
113. (e); "stymied" is the most appropriate word that fits perfectly into the provided space. The word "stymied" means prevented or hindered the progress of. Other words are contextually incorrect. Hence option (e) is the correct choice. Clasp means hold (someone) tightly.
Abet means encourage or assist (someone) to do something wrong, in particular to commit a crime.
114. (b); "engrained" is the most appropriate word that fits perfectly into the provided space. The word "engrained" means firmly fixed or established (a habit, belief, or attitude) in a person. Other words are contextually incorrect. Hence option (b) is the correct choice.
Chisel means cut or shape (something) with a chisel.
Erode means gradually destroy or be gradually destroyed.
115. (a); "autocracy" is the most appropriate word that fits perfectly into the provided space. The word "autocracy" means a system of government by one person with absolute power. The word "autocrat" in the latter part of the sentence suggests that "autocracy" would give the most logical meaning to the sentence. Hence option (a) is the correct choice.
116. (b); "remarkably" is the most appropriate word that fits into the provided space adding meaning to the sentence. Other words do not give a contextual essence to the sentence. Hence option (b) is the correct choice.
Remarkably means in a way that is worthy of attention.
117. (c); "insisted" is the most appropriate word that fits into the provided space adding meaning to the sentence. Other words do not give a contextual essence to the sentence. Hence option (c) is the correct choice.
Insist means demand something forcefully, not accepting refusal.
Endure means remain in existence; last.
Acquire means buy or obtain (an asset or object) for oneself.
Pretend means behave so as to make it appear that something is the case when in fact it is not.
118. (d); "trained" is the most appropriate word that fits into the provided space adding meaning to the sentence. It is to be noted that the expression "highly trained economists and other professionals" makes the sentence logically meaningful. Hence option (d) is the correct choice. Amateurish means done in an unskillful or inept way.
119. (e); "dominated" is the most appropriate word that fits into the provided space adding meaning to the sentence. Other words do not give a contextual essence to the sentence. Hence option (e) is the correct choice.

Oppress means cause distress or anxiety to.
Dominate means have power and influence over.
120. (c); "status" is the most appropriate word that fits into the provided space adding meaning to the sentence. Other words do not give a contextual essence to the sentence. Hence option (c) is the correct choice.
Status means relative social or professional position; standing.
Phase means a distinct period or stage in a process of change or forming part of something's development.

