Direction (1-5): Study the following information carefully and answer the questions given below:
Six boxes i.e. A, B, C, D, E and F of different colors i.e. Orange, Red, Black, Yellow, Pink and White are placed one above another but not necessarily in same order. Box $C$ is placed just above the orange colored box. One box is placed between A and orange colored box. Three boxes are placed between A and pink colored box. Two boxes are placed between D and E. Red colored box is placed just below A. There are as many boxes placed above red colored box as below E. E is not Orange colored box. Black colored box is placed just above yellow colored box. $F$ is placed above $B$.

Q1. How many boxes are placed above F?
(a) Two
(b) Three
(c) Four
(d) One
(e) None of these

Q2. In which of the following position red colored box is placed?
(a) $2^{\text {nd }}$ from bottom
(b) $1^{\text {st }}$ from bottom
(c) $2^{\text {nd }}$ from top
(d) $1^{\text {st }}$ from top
(e) None of these

Q3. Which of the following box is Yellow colored?
(a) A
(b) C
(c) E
(d) D
(e) None of these

Q4. Which of the following color is box F has?
(a) Orange
(b) Pink
(c) Red
(d) Yellow
(e) None of these

Q5. Four of the following five are alike in certain way based from a group, find the one which does not belong to that group?
(a) F-Yellow
(b) E-Orange
(c) B-Black
(d) C-Red
(e) D-White

Q6. In some of the following logic TABLE is coded as BUEFM and PRAYS is coded as SQDTZ, following the same logic MINOR will be coded as
(a) JNQSP
(b) JPNSQ
(c) PNSJQ
(d) PSNQJ
(e) None of the above

Q7. How many pairs of letters are there in the word 'PERSUADE', each of which have as many letters between then in the word as they have between then in the English alphabet?
(a) one
(b) two
(c) three
(d) four
(e) five

Direction (8-10): Point $R$ is 5 m west of point Q . Point $P$ is 16 m north of point Q . Point R is 25 m south of point T. Point T is 10 m west of point $V$. Point $V$ is 9 m north of Point J.

Q8. Point $J$ is at how much distance and in which direction with respect to point $P$ ?
(a) 10 m , South-east
(b) 5 m , South
(c) 5 m , East
(d) 10, North-west
(e) 5 m , West

Q9. If point $W$ is west of point $J$ and north of point $R$, then what is the distance between $T$ and $W$ ?
(a) 15 m
(b) 9 m
(c) 12 m
(d) 10 m
(e) 5 m

Q10. What is the direction of Point $V$ with respect to Point $R$ ?
(a) north
(b) south-west
(c) north-east
(d) south
(e) north-west

Direction (11-15): Study the following information carefully and answer the questions given below:

Nine persons are sitting in a row. Some of them are facing North and some are facing South. $P$ sits $2^{\text {nd }}$ from one of the extreme ends. Two persons sit between $P$ and R. S sits $3^{\text {rd }}$ to the left of R. U sits $2^{\text {nd }}$ to the right of $S$. Immediate neighbors of $S$ faces opposite to $S$. $T$ sits $2^{\text {nd }}$ to the right of $U . W$ is an immediate neighbor of T. Persons sitting in an extreme end are facing opposite direction to each other. P sits $2^{\text {nd }}$ to the right of T. W and P doesn't face North. Q sits $2^{\text {nd }}$ to the left of V. X doesn't face south.

Q11. Who among the following person sits $3^{\text {rd }}$ to the right of $U$ ?
(a) P
(b) R
(c) S
(d) T
(e) None of these

Q12. How many persons are sitting between $P$ and $S$ ?
(a) Two
(b) Three
(c) Five
(d) Four
(e) One

Q13. Who among the following pair of persons are sitting at extreme end?
(a) S-V
(b) $V-X$
(c) P-W
(d) P-X
(e) None of these

Q14. How many persons are facing South?
(a) Two
(b) Three
(c) Four
(d) Five
(e) None of these

Q15. Four of the following five are alike in certain way based from a group, find the one which does not belong to that group?
(a) V
(b) Q
(c) W
(d) X
(e) P

Direction (16-18): Study the following information carefully and answer the questions given below:
There are six ropes i.e. E, F, G, H, I and J of different lengths. F is longer than E. I is longer than F. I is shorter than only G. J is longer than F. E is not the shortest rope. The length of $2^{\text {nd }}$ longest rope is 54 cm and $3^{\text {rd }}$ shortest rope is 30 cm .

Q16. Which of the following is $3^{\text {rd }}$ longest rope?
(a) I
(b) J
(c) F
(d) E
(e) Can't be determined

Q17. What may be the possible length of J?
(a) 28 cm
(b) 42 cm
(c) 25 cm
(d) 55 cm
(e) 60 cm

Q18. Which of the following is $2^{\text {nd }}$ shortest rope?
(a) J
(b) F
(c) E
(d) H
(e) None of these

Direction (19-22): Read the information carefully and answer the following questions:

J is married to C. B and D are the children of C. D is married to daughter of $K$, who is married to $M . K$ is mother of $R$, who is husband of $N . H$ is the grandson of $C$ and $K$. L is daughter of N. V is only sibling of H. D has only one daughter.

Q19. How is D related to K?
(a) Son
(b) Wife
(c) Son in law
(d) Daughter
(e) None of these

Q20. If $T$ is daughter of $K$, then how is $T$ related to $D$ ?
(a) Wife
(b) Son in law
(c) Daughter
(d) Husband
(e) None of these

Q21. How is L related to K ?
(a) Wife
(b) Granddaughter
(c) Daughter
(d) Son
(e) Grandson

Q22. Who is father of $R$ ?
(a) M
(b) D
(c) B
(d) J
(e) C

Q23. Four of the following five are alike in certain way according to English dictionary form a group, find the one which does not belong to that group?
(a) NLQ
(b) DBG
(c) HFK
(d) TRW
(e) XVY

Direction (24-27): In each of the questions below are given some statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q24. Statements: Only a few Chart are Turbine
Only a few Turbine are Pores
Only a few Pores are fan
Conclusions: I. Some fan is chart is a possibility
II. All fan are Turbine

Q25. Statements: All Beaches are Deltas
All Deltas are cushions
No Cushions is wave
Conclusions: I. Some Beaches can be wave
II. No Deltas is Wave

Q26. Statements: Only a few Aces are Club
No club is Jack
Only a few Jack are Diamond
Conclusions: I. Some Diamond are Aces
II. Some Aces are Jack

Q27. Statements: Some Apple are Banana. No Banana is Date Conclusions:
I. Some Date are not Apple is a possibility
II. All Apple can never be Date

Directions (28-32): Study the information carefully and answer the question given below.

There are ten persons J, P, Q, R, S, T, G, U, V and X living in a ten-floor building, such that ground floor is numbered as 1 , just above the floor is numbered as 2 and so on the topmost floor is numbered as 10 , but not necessary in the same order. P lives on the 5th floor. Only three persons live between P and V. T lives immediate above J, who lives on an odd numbered floor. S lives on one of the floors below R. Number of persons lives between $J$ and $P$ is same as number of persons lives between $T$ and $R$. There is only one floor in between U and X . W lives on an odd numbered floor. R does not live on top floor. S lives on an odd numbered floor above X but not on seventh floor. V lives below the floor on which P lives. U lives above the floor on which $X$ lives. $Q$ lives on an even numbered floor above $P$ but not on top floor.

Q28. How many persons live between $W$ and $S$ ?
(a) One
(b) Four
(c) None
(d) Three
(e) More than four

Q29. Who among the following Lives on topmost floor?
(a) V
(b) W
(c) T
(d) $S$
(e) U

Q30. Four of the following five are alike in certain way based from a group, find the one which does not belong to that group?
(a) Q
(b) X
(c) U
(d) W
(e) T

Q31. Who among the following lives immediate above Q ?
(a) J
(b) W
(c) P
(d) S
(e) V

Q32. Which of the following statement is not true about U ?
(a) U lives on 4th floor
(b) Two persons live between U and W
(c) V lives immediate below $U$
(d) P lives immediate above U
(e) All are true

Direction (33-35): Study the following information carefully and answer the following question.

Six persons are sitting around a triangular table. Persons who are sitting at corner are facing towards the table and the persons who are sitting at middle of the table are facing outside the table. A sits at one of the corners of the table. $M$ is an immediate neighbour of $A$. Two persons sit between $M$ and $B$. $C$ sits immediate right of $B$. $N$ is to the immediate right of $O$. $O$ does not sit at any of the corner of the table.

Q33. Who sits second to the right of $B$ ?
(a) M
(b) A
(c) N
(d) 0
(e) C

Q34. Who is sitting between A and N when counted from the right of A ?
(a) C
(b) B
(c) 0
(d) $M$
(e) None of these

Q35. Who sits immediate left of N ?
(a) M
(b) C
(c) 0
(d) B
(e) None of these

Q36. Four years hence, sum of ages of $A$ and $B$ will be 16 years more than the sum of present age of $B$ and C. Four years ago, sum of age of $A$ and $C$ is 32 years then find the present age of $C$ ?
(a) 24 years
(b) 20 years
(c) 12 years
(d) 16 years
(e) 18 years

Q37. A person purchased two articles at the same price and on selling the first article he makes a profit of $12 \%$. Selling price of second article is Rs 90 more than the selling price of the first article. Find the cost price of one article if his overall profit percent is $15 \%$ ?
(a) Rs 1800
(b) Rs 1500
(c) Rs 2000
(d) Rs 2400
(e) None of these

Q38. Ratio of speed of boat in still water to the speed of current is $10: 1$. Ratio of time taken by the boat to cover D km in downstream to the time taken by the boat to cover ( $\mathrm{D}-45$ ) km in upstream is $3: 2$. Then find the value of $D$ ?
(a) 60 km
(b) 87 km
(c) 99 km
(d) 108 km
(e) 90 km

Q39. A container contains a mixture of milk and water in which water is $24 \%$. $50 \%$ of the mixture is taken out in which water is 78 litre less than the milk. Find the remaining quantity of milk in that container?
(a) 171 lit
(b) 152 lit
(c) 133 lit
(d) 108 lit
(e) 114 lit

Q40. The perimeter of a triangle is equal to perimeter of a rectangle. Length of rectangle is $75 \%$ of side of a square and ratio of length to breadth of rectangle is $3: 2$. If difference between perimeter of square and that of rectangle is 36 cm , then find perimeter of triangle?
(a) 60 cm
(b) 48 cm
(c) 72 cm
(d) 80 cm
(e) 96 cm

Direction (41-45): Given below is the pie chart which shows the number of persons visiting a national park on different days and table shows the ratio of male to female visiting these parks.

Total Person-400


| Days | Male $:$ Female |
| :--- | :--- |
| Friday | $2: 3$ |
| Saturday | $5: 7$ |
| Sunday | $5: 4$ |

Q41. If on Monday number of males who visited national park are increased by $20 \%$ over males visiting national park on Saturday and Females visiting national park on Monday is $33 \frac{1}{3} \%$ more than females visiting on Friday then, find the total persons visiting national park on Monday.
(a) 145
(b) 165
(c) 140
(d) 160
(e) 150

Q42. Total females visiting national park on Sunday and Saturday together are what percent more or less than total male visiting national park on Friday and Sunday together.
(a) $33 \frac{1}{3} \%$
(b) $14 \frac{2}{7} \%$
(c) $16 \frac{2}{3} \%$
(d) $14 \frac{1}{7} \%$
(e) ${ }_{7}^{7} \frac{1}{7} \%$

Q43. What is the average of males visiting national park on all these days
(a) $63 \frac{1}{3}$
(b) $65 \frac{2}{3}$
(c) $49 \frac{2}{3}$
(d) $45 \frac{1}{3}$
(e) $66 \frac{3}{3}$

Q44. If cost of ticket per male and per female on any day is Rs 45 and Rs 40 respectively then total amount obtained by national park on Friday is how much more or less than total amount obtained by national park on Sunday (in Rs).
(a) 2800
(b) 3500
(c) 3000
(d) 3200
(e) 4200

Q45. What is the ratio of males visiting park on Friday to females visiting park on Saturday
(a) $4: 5$
(b) $7: 3$
(c) $3: 7$
(d) $4: 7$
(e) $7: 4$

Direction (46-50): Solve the given quadratic equations and mark the correct option based on your answer.
(a) if $x>y$
(b) if $x \geq y$
(c) if $x<y$
(d) if $x \leq y$
(e) if $x=y$ or no relation can be established between $x$ and $y$.

Q46. I. $x^{2}-14 x+45=0 \quad$ II. $y^{2}-18 y+72=0$
Q47. I. $x^{2}+7 x+12=0$
II. $y^{2}+9 y+20=0$

Q48. I. $4 x^{2}-7 x+3=0$
II. $7 y^{2}-17 y+6=0$

Q49. I. $2 \mathrm{x}^{2}-19 \mathrm{x}+45=0$
II. $2 y^{2}-9 y+4=0$

Q50. I. $x^{2}=144$
II. $(y+12)^{2}=0$

Direction(51-55)- Study the bar-graph given below carefully and answer the questions.

Bar-graph given below shows the number of packets of flour sold by five stores of two types i.e. multigrain and whole-wheat.


Q51. Total number of packets sold by store $C$ is approximately what percent more or less than number of packets sold by store E?
(a) $3 \%$
(b) $5 \%$
(c) $12 \%$
(d) $23 \%$
(e) $17 \%$

Q52. What is the ratio of number of packets sold of multigrain by store $A$ and $D$ together to number of packets sold of whole-wheat by store $A$ and $E$ together?
(a) $2: 1$
(b) $73: 58$
(c) $43: 41$
(d) $41: 23$
(e) None of these

Q53. Multigrain packets sold by store A and B together is what percent more or less than Whole-wheat packets sold by store C and D together?
(a) $25 \%$
(b) $20 \%$
(c) $30 \%$
(d) None of these
(e) $35 \%$

Q54. If another store F sold number of multigrain packets which is average of number of multigrain packets sold by store $\mathrm{C}, \mathrm{D}$ and E and number of whole-wheat packets sold is average of number of wholewheat packets sold by store A and E. If store B sold each packet at Rs 240 and store F sold each packet at $20 \%$ more than that of B then find total price collected by store F?
(a) Rs 24246
(b) Rs 28246
(c) None of these
(d) Rs 36864
(e) Rs 32863

Q55. What is the difference of total number of multigrain packets sold by all store together and number of whole-wheat packets sold by all store together?
(a) 48
(b) 54
(c) 42
(d) 36
(e) 24

Directions (56-60): What will come in place of (?) in the following number series problems?

Q56. 200, 197, 185, 163, 130, ?
(a) 95
(b) 85
(c) 105
(d) 86
(e) 84

Q57. 15, 8, 9, 15, 32, ?
(a) 98
(b) 66
(c) 80.5
(d) 82.5
(e) 84.5

Q58. 5, 30, 150, 600, ?
(a) 1200
(b) 1500
(c) 2400
(d) 1800
(e) 600

Q59. 222, 110, 54, 26, ?
(a) 10
(b) 12
(c) 8
(d) 6
(e) 14

Q60. 104, ?, 96, 120, 88, 128
(a) 112
(b) 96
(c) 116
(d) 120
(e) 92

Q61. A invested Rs. $X$ in a scheme. After 6 months, B joined with Rs. 4000 more than that of A. After an year, ratio of profit of $B$ to the total profit was 3: 7 . Find the value of $X$.
(a) 4000
(b) 8000
(c) 1600
(d) 6000
(e) 10000

Q62. 1500 rupees is invested in a scheme A at R\% p.a. simple interest. Another amount ( $1500-\mathrm{x}$ ) is invested in scheme B at 2R \% p.a. simple interest. After 4 years, interest earned from scheme A is $25 \%$ less than that of scheme B. Find x.
(a) 500
(b) 600
(c) 900
(d) 1000
(e) 1200

Q63. 40 men can complete a work in 48 days. 64 men started for the same work for x days. After x days, 32 men increased, So, the remaining work is completed in $16(2 / 3)$ days. Find $x$.
(a) 5
(b) 8
(c) 10
(d) 6
(e) None of these

Q64. If perimeter of the base of a cylinder is 66 cm . Then find volume of cylinder if height of cylinder is 0.04 m
(a) $1111 \mathrm{~cm}^{3}$
(b) $1386 \mathrm{~cm}^{3}$
(c) $2046 \mathrm{~cm}^{3}$
(d) $1186 \mathrm{~cm}^{3}$
(e) $2002 \mathrm{~cm}^{3}$

Q65. A 175 meters long train ' $P$ ' passed a pole in 8.75 sec . Train ' $P$ ' passed an another train ' $Q$ ' travelling in a direction opposite to ' $P$ ' in $\frac{60}{7} \sec$. If length of train ' $Q$ ' is 225 meter, then in what time train ' $Q$ ' will pass train ' $P$ ' when they both runs in same direction?
(a) 55 sec
(b) 50 sec
(c) 45 sec
(d) 60 sec
(e) 35 sec

Directions (66-70): Study the given information carefully and answer the question that follow.

3 pizza shops A, B and C sells veg pizza and non veg pizza. Respective ratio between number of vegetarian and non-vegetarian pizzas sold by pizza shop A was $9: 7$ and that sold by pizza shop B was $3: 4$. The no. of pizzas (Veg + non veg) sold by pizza shop C was 108 and respective ratio between number of vegetarian and non-vegetarian pizza sold by pizza shop C was 7:5 Total number of pizza sold by all three pizza shop was 376 . Number of veg pizza sold by pizza shop A was $20 \%$ more than the veg pizza sold by pizza shop B.

Q66. If cost of each veg pizza and each non-veg pizza sold by shop B is Rs 200 and Rs 300 respectively then find the total amount obtained by shop B (in Rs).
(a) 40,000
(b) 36000
(c) 48000
(d) 32000
(e) 44000

Q67. What is the ratio of veg pizza sold by shop A \& C together to the non-veg pizza sold by shop B \& C together.
(a) $27: 25$
(b) $27: 29$
(c) $29: 27$
(d) $25: 27$
(e) $23: 25$

Q68. What is the average of veg pizza sold by all shops?
(a) 61
(b) 68
(c) 62
(d) 60
(e) 65

Q69. Total veg pizzas sold by Shop A and C are what percent of total non-veg pizza sold by shop B \& C?
(a) $113 \%$
(b) $108 \%$
(c) $109 \%$
(d) $112 \%$
(e) $116 \%$

Q70. If Veg pizza sold by shop B is increased by $33 \frac{1}{3} \%$ and non-veg pizza sold by shop A is increased by $75 \%$ then what is the sum of veg pizza sold by B and non-veg pizza sold by A after increment.
(a) 178
(b) 186
(c) 198
(d) 200
(e) 182

Directions (71-77): Read the following passage carefully and answer the questions given below. Certain words are given in bold to help you locate them while answering some of the questions.

Renewable energy is the future, and future is finally here. Global investment in renewable energy shot up last year, far outstripping investment in fossil fuels, according to a UN report. As the price of clean energy technology plummets, it has become an increasingly attractive prospect for world governments. China was by far the world's largest investor in renewable energy in 2017, accounting for nearly half of the new infrastructure commissioned. This was mainly a result of its massive support for solar power, which globally attracted nearly a fifth more investment than in the previous year. Other countries including Australia, Sweden and Mexico more than doubled the amount of money they pumped into clean energy projects. "Yet again, this was a record year for new renewable power capacity being financed," Francoise d'Estais from UN Environment's energy and climate branch told The Independent. "We had a record 157 gigawatts commissioned last year, far outstripping the fossil fuel generating capacity, which we estimated as 70 gigawatts."
In just over a decade, concerted investment has increased the proportion of world electricity generated by wind, solar and other renewable sources from around 5 per cent to 12 per cent. "The electricity sector remains the brightest spot for renewables with the exponential growth of solar photovoltaics and wind in recent years, and building on the significant contribution of hydropower generation." But, electricity accounts for only a fifth of global energy consumption, and the role of renewables in the transportation and heating sectors remains $\qquad$ (A) $\qquad$ to the energy transition. The global replacement of traditional fuels with renewables led to around 1.8 gigatonnes of carbon dioxide emissions being avoided last year the equivalent of removing the entire US transport system. According to the Wind and Solar Atlas, there are opportunities and potential for Wind and Solar plants in the East and West Nile areas that will produce around $31,150 \mathrm{MW}$ from wind and $52,300 \mathrm{MW}$ from solar. Egypt is also considering financing options to conduct feasibility studies for building the world largest solar power plant for both electricity generation and water desalination.

The UK has been performing well in clean energy generation, with recent figures showing wind and solar sources had overtaken nuclear as suppliers of electricity. However, despite these positive trends, 2017 saw a big drop of 65 per cent in British renewables investment. Experts have criticised the withdrawal of UK support for onshore wind, as previous analysis has demonstrated it already has the capacity to outcompete fossil fuels as a power source.
As renewable energy prices continue to fall, however, Professor Moslener said government subsidies are likely to become less and less important.

Q71. Which of the following facts are correct as per the given passage?
(I) The decrease in the cost of renewable energy resulted in its wide use.
(II) China massively supported solar power and became largest investor in renewable energy.
(III) Egypt is conducting feasibility studies for building largest solar power plant.
(a) Only (I)
(b) Only (II)
(c) Only (III)
(d) Both (II) and (III)
(e) All (I),(II)and(III)

Q72. What did the author mean by the line "The electricity sector remains the brightest spot for renewables with the exponential growth of solar photovoltaics and wind in recent years, and building on the significant contribution of hydropower generation."?
(I) The growth of renewable energy in electricity sector is not that impressive.
(II) Electric sector has performed the best for renewables.
(III) Hydropower generation has a significant contribution in the electricity sector.
(a) Only (I)
(b) Only (II)
(c) None
(d) Both (II) and (III)
(e) All (I) (II) and (III)

Q73. Which of the following is/are the positive effect(s) of renewable energy?
(I) Overall increase in the global temperature.
(II) Carbon dioxide emissions were reduced to a considerable amount.
(III) Nile being converted into a biodiversity hotspot.
(a) Only (I)
(b) Only (II)
(c) Only (III)
(d) Both (II) and (III)
(e) All (I)(II) and (III)

Q74. Why government subsidies are likely to become less important?
(a) As China is increasing the investment in this sector.
(b) As the price of clean energy technology continues to plummet.
(c) As Fossil fuels is the better alternative
(d) As there are opportunities and potential for Wind and Solar plants in the East and West Nile areas
(e) None of these

Q75. Which of the following words will come in place of $(\mathbf{A})$ as given in the passage?
(a) Elevate
(b) Existence
(c) Erratic
(d) Diabolic
(e) Critical

Q76. Which of the following word is most similar in meaning to "accounting for" as given in the passage?
(a) contradict
(b) contribute
(c) Devious
(d) Retrieve
(e) Categorical

Q77. Which of the following word is most similar in meaning to "plummets" as given in the passage?
(a) Intensify
(b) Escalate
(c) Callous
(d) Slump
(e) reminiscent

Direction (78-83): Given below is a paragraph consisting of blanks against each number.
Identify the correct option among the five alternatives that perfectly fits into the given blank against the respective number to make the paragraph contextually meaningful and grammatically correct.

On October 29, 1929, Black Tuesday hit Wall Street as investors $\qquad$ (8) $\qquad$ some 16 million shares on the New York Stock Exchange in a single day. Billions of dollars were lost, (9) $\qquad$ out thousands of investors. In the aftermath of Black Tuesday, America and the rest of the industrialized world $\qquad$ downward into the Great Depression (1929-39), the deepest and longest-lasting economic $\qquad$
(11) $\qquad$ in the history of the Western industrialized world up to that time. During the 1920s, the U.S. stock market underwent rapid expansion, reaching its peak in August 1929, after a period of wild speculation. By then, production had already declined and unemployment had risen, leaving stocks in great excess of their real value. Among the other causes of the eventual market collapse were low wages, the $\qquad$ (12) of debt, a struggling agricultural sector and an excess of large bank loans that could not be liquidated. Stock prices began to decline in September and early October 1929, and on October 18 the fall began. Panic set in, and on October 24, Black Thursday, a record $12,894,650$ shares were traded. Investment companies and leading bankers attempted to $\qquad$ (13) $\qquad$ the market by buying up great blocks of stock, producing a moderate rally on Friday.

Q78. (a) Traded
(b) Invaded
(c) Segregated
(d) Daunted
(e) Halted

Q79. (a) Affording
(b) Wiping
(c) Wanting
(d) Vacating
(e) Artificial

Q80. (a) Reprimanded
(b) Embedded
(c) Spiraled
(d) Mounted
(e) Disregarded

Q81. (a) provided
(b) Infiltration
(c) Dismantle
(d) Downturn
(e) Diversification

Q82. (a) Commotion
(b) impair
(c) significant
(d) Proliferation
(e) renovate

Q83. (a) Infirmity
(b) Credibility
(c) Stabilize
(d) Burdened
(e) Rationalize

Direction (84-88): In the questions given below, there is a sentence in which one part is given in bold. The part given in bold, may or may not be grammatically correct. Choose the best alternative among the four given which can replace the part in bold to make the sentence grammatically correct. If the part given in bold is already correct and does not require any replacement, choose option (e), i.e. "No replacement required" as your answer.

Q84. The plastic ban introduced by the municipality has been a total failure as there has been no reducing in the usage of polybags.
(a) is no reduce
(b) has been no reduction
(c) have been no reduced
(d) is not any reduced
(e) No correction required

Q85. As per the directives, the retail prices of both petrol and diesel is revising on a daily basis.
(a) have been revising
(b) are revising
(c) will be revised
(d) is revise
(e) No correction required

Q86. We got everything ready for all of them long before they arrived.
(a) We had got
(b) We have got
(c) We have been got
(d) We are getting
(e) No correction required

Q87. We still have some farm equipment that hasn't been used since my grandfather died.
(a) Hasn't been using
(b) was using
(c) are using
(d) should not have been use
(e) No correction required

Q88. Every officer and every resident of this village is determined to do their best to get better ranking in sanitation index.
(a) to do there best
(b) to do its best
(c) to do his best
(d) to do ones best
(e) No replacement required

Directions (89-93): In each of the questions given below a sentence is given with a blank. The sentence is then followed by five alternatives out of which one will fit the blank. Choose the alternative that will fit the blank most appropriately and make the sentence grammatically and contextually correct.

Q89. Administration has taken positive steps to $\qquad$ the education system.
(a) Increase
(b) Devised
(c) renovated
(d) revamp
(e) dispel

Q90. Health and education sectors are one of the most $\qquad$ sectors in the global market.
(a) benefit
(b) necessity
(c) profit
(d) lucrative
(e) Importance

Q91. She is an aware citizen who has always $\qquad$ to contribute to the progress of the country.
(a) wished
(b) admiring
(c) prepare
(d) motivating
(e) stimulate

Q92. In the beginning I looked $\qquad$ and could not find quite the car I dreamed of.
(a) after
(b) around
(c) above
(d) out
(e) down

Q93. The RBI has played conservative in $\qquad$ a rate cut of just 25 basis points.
(a) introduce
(b) proposed
(c) improving
(d) decrease
(e) announcing

Directions (94-95): In the following questions two columns are given containing three sentences/phrases each. In first column, sentences/phrases are A, B and C and in the second column the sentences/phrases are D, E and F. A sentence/phrase from the first column may or may not connect with another sentence/phrase from the second column to make a grammatically and contextually correct sentence. Each question has five options which display the sequence(s) in which the sentences/phrases can be joined to form a grammatically and contextually correct sentence. Choose the pair(s) which make(s) a grammatically meaningful sentence.

## Q94. Column (1)

(A) The rumors of petrol shortage
(B) The body of camera makes it
(C) There were no surprises

Column (2)
(D) Highly resistant for outdoor use.
(E) Turned out to be false.
(F) The key stakeholders in the economy
(a) C-F and A-D
(b) B-F
(c) A-F
(d) C-E
(e) B-D and A-E

## Q95. Column (1)

(A) As the rain water began to collect in pools on the highway
(B) For years, Argentina would dominate in World Cup qualifying matches
(C) Many have accused him of being a quiet misogynist

Column (2)
(D) One of the European countries during the late stages of the tournament
(E) Recently unearthed letters argue against this belief
(F) It began to hamper the flow of traffic
(a) C-F
(b) B-F
(c) A-F
(d) C-E
(e) None of these

Directions ( $\mathbf{9 6 - 1 0 0}$ ): Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error', the answer is (e). (Ignore errors of punctuation, if any.)

Q96. People have the freedom (a)/ of speech but at the (b)/ same time each of them (c)/ have to remember their fundamental duties (d)/ No error (e)

Q97. The number of students (a)/ competing in the event (b)/ has been fallen (c)/ because of the prize money. (d)/ No error. (e)

Q98. While he used to walk (a)/ along the road, (b)/ a wild and ferocious dog (c)/ knocked him down. (d)/ No error. (e)

Q99. Anaya is even willing (a)/ to make Mexico (b)/ one of the first countries to (c)/ introduces a universal basic income. (d) / No error. (e)

Q100. There were no surprises (a)/ in the second bimonthly monetary policy (b)/ announcement by the (c)/ Reserve Bank of India. (d)/ No error. (e)


Direction (1-5):

| Boxes | Colors |
| :--- | :--- |
| E | Pink |
| C | White |
| F | Orange |
| D | Black |
| A | Yellow |
| B | Red |

S1. Ans.(a)
S2. Ans. (b)
S3. Ans. (a)
S4. Ans.(a)
S5. Ans.(d)

S6. Ans.(a)
Sol.

| T | A | B | L | E |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\downarrow$ |  |  |
| B | U | E | F | M |

S7. Ans. (e)
Sol.


S8. Ans.(c)
Sol.


S9. Ans.(b)
Sol.


S10. Ans.(c)
Sol.


> S11. Ans.(e)

S13. Ans.(b) 16 m
S14. Ans.(c)
SA5. Ams.(d)
Direction (16-18):

S16. Ans.(b)
S17. Ans.(b)
S18. Ans.(c)

## S19. Ans.(c)

Sol.


S20. Ans.(a)
Sol.


S21. Ans.(b)
Sol.


S22. Ans.(a)
Sol.


S23. Ans.(e)
Sol. The logic for the above question is discussed below.
$\mathrm{H} \xrightarrow{-2} \mathrm{~F} \xrightarrow{+5} \mathrm{~K}$

## S24. Ans.(a)

Sol.


S25. Ans.(b)
Sol.


S26. Ans.(d)
Sol.


## S27. Ans.(e)

Sol.


Direction (28-32):

| Floors | Persons |
| :---: | :---: |
| 10 | T |
| 9 | J |
| 8 | Q |
| 7 | W |
| 6 | R |
| 5 | P |
| 4 | U |
| 3 | S |
| 2 | X |
| 1 | V |

S28. Ans.(d)
S29. Ans.(c)
S30. Ans. (d)
S31. Ans.(a)
S32. Ans.(c)

Direction (33-35):


S33. Ans.(b)
S34. Ans. (d)
S35. Ans.(a)

## S36. Ans.(d)

Sol. Let the present age of A, B and C be $\mathrm{x}, \mathrm{y}$ and z years respectively
ATQ
$(x+4)+(y+4)=(y+z)+16$
$\mathrm{x}-\mathrm{z}=8$
And $(x-4)+(z-4)=32$
$x+z=40 \ldots$ (ii)
From (i) and (ii)
$\mathrm{z}=16$ years

## S37. Ans.(b)

Sol. Let the profit earned on second article be $\mathrm{x} \%$
Using allegation method,
12 x
15
(x-15) 3
1:1------------ (ratio of cost price
$\Rightarrow \mathrm{x}=18 \%$
ATQ
6\%=Rs 90
So, cost price= $100 \%=$ Rs 1500

## S38. Ans.(c)

Sol. Let the speed of boat in still water and the speed of current be $10 \mathrm{xkm} / \mathrm{hr}$ and $\mathrm{x} \mathrm{km} / \mathrm{hr}$ respectively
ATQ
$\frac{\left(\frac{\mathrm{D}}{11 \mathrm{x}}\right.}{\frac{\mathrm{D}-45}{9 \mathrm{x}}}=\frac{3}{2}$
$\mathrm{D}=99 \mathrm{~km}$

## S39. Ans.(e)

Sol. Let the quantity of mixture be 100x lit
Quantity of milk= 76x lit
And quantity of water $=24 x$ lit
Quantity of water taken $=12 x$ lit
Quantity of milk taken $=38 x$ lit
ATQ
$26 x=78$
$\mathrm{x}=3$ lit
required quantity of milk=114 lit

## S40. Ans.(a)

Sol. Let side of square be ' 4 x ' cm
So, length of rectangle $=4 \mathrm{x} \times \frac{3}{4}=3 \mathrm{x} \mathrm{cm}$
And, breadth of rectangle $=2 \mathrm{x} \mathrm{cm}$
ATQ -
$4 \times 4 \mathrm{x}-2(3 \mathrm{x}+2 \mathrm{x})=36$
$6 x=36 \Rightarrow x=6 \mathrm{~cm}$
Perimeter of triangle $=$ perimeter of rectangle
$=2(18+12)=60 \mathrm{~cm}$

## S41. Ans.(c)

Sol. Total Males visiting national park on Monday
$=\frac{30}{100} \times 400 \times \frac{5}{12} \times \frac{120}{100}=120 \times \frac{5}{12} \times \frac{6}{5}=60$
Total females visiting national park on Monday
$=\frac{25}{100} \times 400 \times \frac{3}{5} \times \frac{4}{3}=80$
Required sum $=80+60=140$

## S42. Ans.(e)

Sol. Total female visiting national park on Sunday and Saturday together
$=\frac{30}{100} \times 400 \times \frac{7}{12}+\frac{45}{100} \times 400 \times \frac{4}{9}$
$=70+80=150$
Total male visiting national park on Friday and Sunday together
$=\frac{25}{100} \times 400 \times \frac{2}{5}+\frac{45}{100} \times 400 \times \frac{5}{9}$
$=40+100=140$
Required percentage $=\frac{150-140}{140} \times 100=7 \frac{1}{7} \%$

## S43. Ans.(a)

Sol. Required average $=\frac{40+50+100}{3}=\frac{190}{3}=63 \frac{1}{3}$

## S44. Ans.(b)

Sol. Total amount obtained on Friday $=40 \times 45+60 \times 40$
$=1800+2400=$ Rs 4200
Total amount obtained on Sunday
$=100 \times 45+40 \times 80=4500+3200=7700$
Required difference $=7700-4200=$ Rs 3500

## S45. Ans. (d)

Sol. Required ratio $=40: 70=4: 7$

## S46. Ans.(e)

Sol. I. $\mathrm{x}^{2}-14 \mathrm{x}+45=0$
$x^{2}-9 x-5 x+45=0$
$x(x-9)-5(x-9)=0$
$x=9,5$
II. $y^{2}-12 y-6 y+72=0$
$y(y-12)-6(y-12)=0$
$y=12,6$
no relation can be established between x and y .

## S47. Ans.(b)

Sol. I. $\mathrm{x}^{2}+7 \mathrm{x}+12=0$
$x^{2}+4 x+3 x+12=0$
$x(x+4)+3(x+4)=0$
$(x+4)(x+3)=0$
$x=-3,-4$
II. $y^{2}+5 y+4 y+20=0$
$y(y+5)+4(y+5)=0$
$y=-5,-4$
So , $x \geq y$

## S48. Ans.(e)

Sol. I. $4 x^{2}-4 x-3 x+3=0$
$4 x(x-1)-3(x-1)=0$
$x=1,3 / 4$
II. $7 \mathrm{y}^{2}-17 \mathrm{y}+6=0$
$7 y^{2}-14 y-3 y+6=0$
$7 y(y-2)-3(y-2)=0$
$y=2,3 / 7$
So, no relation can be established between x and y .

## S49. Ans.(a)

Sol. I. $2 x^{2}-10 x-9 x+45=0$
$2 x(x-5)-9(x-5)=0$
$\mathrm{x}=5,9 / 2$
II. $2 y^{2}-8 y-y+4=0$
$2 y(y-4)-1(y-4)=0$
$y=4,1 / 2$
So, $x>y$

S50. Ans.(b)
Sol. I. $\mathrm{x}^{2}=144$
$\mathrm{x}=-12,+12$
II. $y=-12$

So, $x \geq y$

## S51. Ans.(a)

Sol. Required $\%=\frac{(84+72)-(72+80)}{(72+84)} \times 100=3 \%$

## S52. Ans.(b)

Sol. Required ratio $=\frac{92+54}{44+72}=73: 58$

## S53. Ans.(c)

Sol. Required $\%=\frac{(92+64)-(80+40)}{(80+40)} \times 100=30 \%$

## S54. Ans.(d)

Sol. No. of packets sold by store F
$=\frac{1}{3}[72+54+84]+\frac{1}{2}[44+72]$
$=70+58=128$
Required price $=128 \times 240 \times \frac{120}{100}=$ Rs 36864

## S55. Ans. (c)

Sol. Required difference $=(92+64+72+54+84)-(44+88+80+40+72)$
= 366 - $324=42$

## S56. Ans.(b)

Sol.


## S57. Ans.(d)

Sol. The pattern is $-15 \times 0.5+0.5=8$
$8 \times 1+1=9$
$9 \times 1.5+1.5=15$
$15 \times 2+2=32$
$32 \times 2.5+2.5=82.5$

## S58. Ans.(d)

Sol. The pattern is $-\times 6, \times 5, \times 4, \times 3, \times 2, \ldots$
$\therefore$ ? $=600 \times 3=1800$

## S59. Ans.(b)

Sol. The pattern is: $\times 0.5-1, \times 0.5-1, \times 0.5-1, \times 0.5-1 \ldots$
$?=26 \times 0.5-1=12$

## S60. Ans.(a)

Sol. The pattern is: $+8,-16,+24,-32,+40$
? = $104+8=112$

## S61. Ans.(b)

Sol. A/q, $\frac{\text { Profit of B }}{\text { Total Profit }}=\frac{3}{7}=\frac{(X+4000) \times 6}{\mathrm{X} \times 12+(\mathrm{X}+4000) \times 6}$
$7 X+28000=9 X+12000$
$2 \mathrm{X}=16000$
$\mathrm{X}=8000$

## S62. Ans.(a)

Sol. Interest earned from scheme $A=\frac{1500 \times \mathrm{R} \times 4}{100}=60 \mathrm{R}$
Interest earned from scheme $B$
$=\frac{(1500-\mathrm{x}) \times 2 \mathrm{R} \times 4}{100}=\frac{2 \mathrm{R}(1500-\mathrm{x})}{25}$
$\mathrm{A} / \mathrm{q}, 60 \mathrm{R}=\frac{3}{4} \times \frac{2 \mathrm{R}(1500-\mathrm{x})}{25}$
$1500-\mathrm{x}=1000 \Rightarrow \mathrm{x}=500$

## S63. Ans.(a)

Sol. A/q, $40 \times 48=64 x+96 \times \frac{50}{3}$
$120=4 \mathrm{x}+100 \Rightarrow \mathrm{x}=5$

## S64. Ans.(b)

Sol. Radius of base of cylinder $=\frac{66}{2 \times 22} \times 7=\frac{21}{2} \mathrm{~cm}$
Volume of cylinder $=\frac{22}{7} \times \frac{21}{2} \times \frac{21}{2} \times 4=1386 \mathrm{~cm}^{3}$

## S65. Ans.(d)

Sol. Let speed of train $P=S_{P}$
ATQ-
$S_{P}=\frac{175}{8.75}=20 \mathrm{~m} / \mathrm{s}$
Let speed of train $Q=S_{q}$
ATQ-
$20+\mathrm{S}_{\mathrm{q}}=\frac{(175+225) \times 7}{60}$
$\mathrm{S}_{\mathrm{q}}=\frac{400 \times 7}{60}-20$
$\mathrm{S}_{\mathrm{q}}={ }^{80} \mathrm{~m} / \mathrm{s}$
Relative speed if train $P$ and $Q$ running in same direction
$=\frac{80}{3}-20=\frac{20}{3} \mathrm{~m} / \mathrm{s}$
Required time $=\frac{(175+225) \times 3}{20}=60 \mathrm{sec}$

S66. Ans.(b)
Sol.

|  | A | B | C |
| :---: | :---: | :---: | :---: |
| Veg | 72 | 60 | 63 |
| Non-Veg | 56 | 80 | 45 |

Required total amount
$=60 \times 200+80 \times 300=12000+24000$
$=36000$

## S67. Ans.(a)

Sol. Required ratio $=\frac{72+63}{80+45}=\frac{135}{125}=\frac{27}{25}$

## S68. Ans.(e)

Sol. Required ratio $=\frac{72+60+63}{3}=65$

## S69. Ans.(b)

Sol. Required percentage $=\frac{135}{125} \times 100=\frac{{ }_{25}}{25} \times 100$
= 108\%

## S70. Ans.(a)

Sol. Required sum $=\frac{4}{3} \times 60+\frac{7}{4} \times 56$ $=80+98=178$

## S71. Ans.(e)

Sol. All of the given facts are correct as per the given passage. Facts can be derived from the lines, "As the price of clean energy technology plummets, it has become an increasingly attractive prospect for world governments. China was by far the world's largest investor in renewable energy in 2017, accounting for nearly half of the new infrastructure commissioned. This was mainly a result of its massive support for solar power, which globally attracted nearly a fifth more investment than in the previous year." And "Egypt is also considering financing options to conduct feasibility studies for building the world largest solar power plant for both electricity generation and water desalination." Thus option (e) is the best answer choice.

## S72. Ans.(d)

Sol. Statements (II)and(III) can be easily inferred from the given line "The electricity sector remains the brightest spot for renewables with the exponential growth of solar photovoltaics and wind in recent years, and building on the significant contribution of hydropower generation." Thus (d) is the correct answer.

## S73. Ans.(b)

Sol. As per the given passage only (II) is correct. This can be inferred from the line, "The global replacement of traditional fuels with renewables led to around 1.8 gigatonnes of carbon dioxide emissions being avoided last year - the equivalent of removing the entire US transport system." Thus option (b) is correct answer choice.

S74. Ans.(b)
Sol. Refer to the last line of the passage.

## S75. Ans.(e)

Sol. Critical here means having a decisive or crucial importance in the success, failure, or existence of something.

S76. Ans.(b)
Sol. Account for is a phrasal verb which means supply or make up (a specified amount or proportion)

## S77. Ans.(d)

Sol. Plummets means fall or drop straight down at high speed hence slump is the word which is most similar in meaning to the given word.

## S78. Ans.(a)

Sol. Option (a) is the correct answer choice. As the paragraph is talking about 1929 Stock Market Crash and the Great Depression. The line "...........as investors $\qquad$ some 16 million shares on the New York Stock Exchange in a single day," itself suggests that investors can only trade , out of the given options the correct answer choice should be option (a).
Segregated- set apart from the rest or from each other; isolate or divide.
Daunted- make (someone) feel intimidated or apprehensive.
Hence option (a) is the correct answer choice.

Sol. Option (b) is the correct answer choice. The line "Billions of dollars were lost, $\qquad$ out thousands of investors." (wiping- remove or eliminate (something) completely) suggest that option (b) should be the right answer choice. As the line conveys that after such a huge trading of Billions of dollars investors got eliminated from their job they then had nothing with them. Hence option (b) should be the correct answer choice.

## S80. Ans.(c)

Sol. Option (c) is the correct answer choice. As the paragraph is talking about 1929 Stock Market Crash and the Great Depression. The line ". In the aftermath of Black Tuesday, America and the rest of the industrialized world $\qquad$ downward into the Great Depression" itself suggest that the consequences or after-effects of a significant unpleasant event like stock market crash resulted into the continuous downfall and depression of America and rest of the industrialized world.
Spiraled-decrease or deteriorate continuously.
Reprimanded- address a reprimand to.
Hence option (c) is the correct answer choice.

## S81. Ans.(d)

Sol. Option (d) is the correct answer choice. As the paragraph is talking about 1929 Stock Market Crash and the Great Depression. The line "the deepest and longest-lasting economic $\qquad$ in the history of the Western industrialized world up to that time." Is talking about the great depression that was caused due to the stock market crash the line conveys that it was the greatest depression or downturn in the history of Western industrialized word that it has faced ever.
Dismantle- take (a machine or structure) to pieces
Downturn- a decline in economic, business, or other activity
Hence the meaning of the given word suggests that option (d) should be the right answer choice.

## S82. Ans.(d)

Sol. Option (d) is the correct answer choice. option (b), (c) and (e) are out of context. As the paragraph is talking about 1929 Stock Market Crash and the Great Depression. The line "Among the other causes of the eventual market collapse were low wages, the $\qquad$ of debt, a struggling agricultural sector and an excess of large bank loans that could not be liquidated" conveys that out of the many, one of the reason of the collapse were low wages, rapid increase in the number of debt, the unliquidated large bank lo
Commotion- a state of confused and noisy disturbance
Proliferation- rapid increase in the number or amount of something
Hence the right answer choice is option (d).

## S83. Ans.(c)

Sol. Option (c) is the correct answer choice. As the paragraph is talking about 1929 Stock Market Crash and the Great Depression. The line "Investment companies and leading bankers attempted to $\qquad$ the market by buying up great blocks of stock, producing a moderate rally on Friday" talks about the efforts made by the leading bankers and investment companies to stabilize the market after such a huge depression in the stock market.
Rationalize- attempt to explain or justify (behaviour or an attitude) with logical reasons, even if these are not appropriate.
Hence option (c) is the correct answer choice.

## S84. Ans.(b)

Sol. Replace "has been no reducing" with "has been no reduction".

## S85. Ans.(c)

Sol. The subject "Retail prices" is in plural number therefore the usage of "is" is incorrect .
We will replace "is revising" with "will be revised".

## S86. Ans.(a)

Sol. Use "We had got" in place of "we got" because when we talk about the two incidents of past for the first incident use past perfect and for the later activity we use past indefinite.

## S87. Ans.(e)

Sol. The given sentence, along with the highlighted phrase is grammatically correct and contextually meaningful; thus it doesn't require any corrections. Hence, option (e) is the most suitable answer choice.

## S88. Ans.(c)

Sol. Here, we will replace 'their' with 'his'. When two singular nouns are connected by 'and' and 'each' or 'every' is used before them, then they are considered as singular nouns. In such cases, the verb used with them will be in singular form and the pronoun used for the subject will also be singular. Hence, option (c) is the correct answer.

## S89. Ans.(d)

Sol. Option (d) is the correct choice for the given question.
Revamp means give new and improved form, structure, or appearance to.
Dispel means make (a doubt, feeling, or belief) disappear.

## S90. Ans.(d)

Sol. Lucrative is correct.
Lucrative means producing a great deal of profit.
It also makes the sentence grammatically correct.

## S91. Ans.(a)

Sol. Option (a) is the correct choice for the given question.
Stimulate means encourage or arouse interest or enthusiasm in.

## S92. Ans. (b)

Sol. Look around means [INTRANSITIVE] to try to find something that you want or need.

## S93. Ans.(e)

Sol. Option (e) is the correct choice for the given question.

## S94. Ans.(e)

Sol. B-D :: The body of camera makes it highly resistant for outdoor use.
A-E::: The rumors of petrol shortage turned out to be false.

## S95. Ans.(c)

Sol. Only sentence (A) and (F) makes a perfect match. Word 'highway' and 'traffic' give us a clue. None of the two sentences makes the meaningful coherent sense. Had the sentence $C$ and $E$ been connected with 'but' it would be a possible match. Hence option (c) is the correct answer choice.

## S96. Ans.(d)

Sol. The error is in the part (d) of the sentence. 'have' should be replaced by 'has' because 'each of', 'either of', always takes the singular verb.

## S97. Ans.(c)

Sol. 'Has fallen' will be used in place of 'has been fallen' as there is no passive form of intransitive verb (fall).
(Note: Verbs are of two types namely transitive verbs and intransitive verbs. Transitive verbs need an object while Intransitive verbs cannot have an object. Ex. "I bought a car" in which 'bought' is transitive. "The Baby smiled", 'smiled' is an intransitive verb)

## S98. Ans.(a)

Sol. Replace 'While he used to walk' with 'while he was walking'. For the two incidents of past, if one continues and the other one has happened, then past continuous tense is used for the former and simple past for latter.
Example. While I was walking along the road, a mad dog attacked me.

## S99. Ans.(d)

Sol. The sentence becomes grammatically incorrect in part (d) of it. Instead of "introduces", "introduce" is required as after the phrase 'one of the' the noun or pronoun used is plural, however, the verb should be in its singular form as there is the use of "to-infinitive" which is followed by the first form of the verb. Hence, option (d) is the most viable choice.

## S100. Ans.(e)

Sol. The given sentence is grammatically correct


