### **SNAP 2016 Question Paper**

Time Allowed: 2 Hours | Maximum Marks: 180 | Total Questions: 150

#### General Instructions

Read the following instructions very carefully and strictly follow them:

- 1. SNAP Test will be conducted in objective mode in 30 cities across the country and the time allotted for it will be 120 minutes.
- 2. The exam is divided in four sections
- 3. A total of 150 questions spread across three sections of 40 questions each, and one section of 30 questions.
- 4. There is a **negative marking** of  $\frac{1}{4}$  **mark** for each incorrect answer.
- 5. The test follows an MCQ format wherein each question lists 4 options out of which a student has to select the right answer.

### Quantitative Aptitude & Data Interpretation

- Q1. The ratio of monthly incomes of A and B is 7: 6 and the ratio of their monthly expenditures is 5: 4. If each of them saves Rupees 600 per month, find the sum of their monthly incomes?
- (a) 3600
- (b) 2100
- (c) 3900
- (d) None of these
- Q2. A and B have together three times what B and C have, while A, B and C together have 150 rupees more than that of A. If B has five times that of C, then A has
- (a) Rupees 300
- (b) Rupees 325
- (c) Rupees 375
- (d) Rupees 225
- Q3. A cricket player after playing 15 tests scored 124 runs in the 16th test. As a result, the average of his runs is increased by 4. The present average of runs is

- (a) 55
- (b) 64
- (c) 60
- (d) 68

Q4. A fruit seller buys some apples at the rate of 5 for Rupees 6 and an equal number more at 4 for Rupees 5. He sells the whole lot at 9 for Rupees 11. What is his loss or gain percent?

- (a)  $\log \frac{100}{441} \%$ (b)  $gain \frac{100}{441} \%$ (c) No profit No loss

- (d) Loss  $\frac{5}{22}$  %

Q5. A can do a piece of work in 6 days while B alone can do it in 8 days. With the help of C, they can complete the work in 2 days. If they are paid Rupees 720 for the whole work, how much money A gets?

- (a) Rupees 180
- (b) Rupees 240
- (c) Rupees 300
- (d) Rupees 420

Q6. P and Q are working on an assignment. P takes 3 hours to type 20 pages on a computer. While Q takes 4 hours to type 25 pages. How much time will they together take to type an assignment of 620 pages working on two different computers?

- (a) 64 hrs
- (b) 48 hrs
- (c) 40 hrs
- (d) 60 hrs

Q7. A shopkeeper bought 30 kg of rice at the rate of Rupees 90 per kg. He sold forty percent of the total quantity at the rate of Rupees 60 per kg. Approximately at what price per kg should be sell the remaining quantity to make 25\% overall profit?

- (a) 155.5
- (b) 167.5
- (c) 157.5

(d) 147.5

Q8. If  $X = 2 + \sqrt{3}$ , then the value of  $\sqrt{X} + \frac{1}{\sqrt{X}}$  is:

- (a)  $\sqrt{3}$
- (b)  $\sqrt{6}$
- (c)  $2\sqrt{6}$
- (d) 6

Q9. In an equilateral triangle ABC, if the area of its in-circle is  $4\pi$  cm<sup>2</sup>, then find the length of the angle bisector AD?

- (a) 2 cm
- (b) 4 cm
- (c) 6 cm
- (d) 10 cm

**Q10.** If  $x + \frac{1}{x-1} = 5$ , then find the value of  $(x-1)^2 + \frac{1}{(x-1)^2}$ ?

- (a) 10
- (b) 11
- (c) 14
- (d) None of these

Q11. Veeru gave Rupees 2400 on loan. Some amount he gave at 4% per annum simple interest and remaining at 5% per annum simple interest. After two years he got Rupees 220 as interest. Then the amount given at 4% and 5% per annum simple interest are, respectively?

- (a) Rupees 1000, Rupees 1400
- (b) Rupees 800, Rupees 1600
- (c) Rupees 1800, Rupees 600
- (d) Rupees 2200, Rupees 200

Q12. A student was asked to divide a number by 6 and add 12 to the quotient. He however, first added 12 to the number and then divided it by 6, getting 112 as the answer. The correct answer should have been?

(b) (c)	124 172 118 122

Q13. The average of marks obtained by 120 candidates in a certain examination is 35. If the average marks of passed candidates is 39 and that of the failed candidates is 15, what is the number of candidates who passed the examination?

- (a) 90
- (b) 85
- (c) 100
- (d) 120

Q14. Two pipes A, B can fill a tank in 24 min and 32 min respectively. If both pipes are opened simultaneously, after how much time should B be closed so that the tank is full in 18 min?

- (a) 8 min
- (b) 12 min
- (c) 15 min
- (d) 20 min

Q15. A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?

- (a) 3 hours 15 min
- (b) 3 hours 45 min
- (c) 3 hours 40 min
- (d) 3 hours 50 min

Q16. A company produces two articles, A and B. The per unit price of A is 25% less than the per unit price of B. By what percent is the sales (units) of A more than the sales of B if the revenue earned from A is 1.5 times the total revenue earned from B?

- (a) 50%
- (b) 75%
- (c) 100%
- (d) 125%

Q17. The salary of a man increases by 10% in the first year, then by 20% in the second year and then by 25% in the third year. If the last increase is equivalent to an increase of Rupees 6600, then what is the equivalent of the second increase?

- (a) Rupees 2000
- (b) Rupees 2200
- (c) Rupees 4000
- (d) Rupees 4400

Q18. The profit earned after selling an article for Rupees 996 is the same as the loss incurred after selling the article for Rupees 894. What is the cost price of the article?

- (a) Rupees 935
- (b) Rupees 905
- (c) Rupees 945
- (d) Rupees 975

Q19. Deepti invests 11% of her monthly salary i.e., 5,236 in Fixed Deposits. Later she invests 19% of her salary on Life Insurance policies and 7% on Mutual Funds. What is the total annual amount invested by Deepti?

- (a) 2,11,344
- (b) 17,612
- (c) 1,05,672
- (d) 35,224

Q20. By selling 18 articles, a shopkeeper earns the cost price of 24 articles. By what percent should he increase the selling price so that by selling 24 articles, he earns the cost price of 36 articles?

- (a) 10%
- (b) 20%
- (c) 12.5%
- (d) 25%

**Q21.** If  $\sec(7q + 28^{\circ}) = \csc(30^{\circ} - 3q)$ , then find q.

- (a)  $8^{\circ}$
- (b)  $5^{\circ}$
- (c)  $6^{\circ}$
- (d)  $9^{\circ}$

**Q22.** Find the value of  $\cos 24^{\circ} + \cos 55^{\circ} + \cos 125^{\circ} + \cos 156^{\circ}$ .

- (a) 0
- (b) 2
- (c) 3
- (d) 1

Q23. If ax + by = 6, bx - ay = 2 and  $x^2 + y^2 = 4$ , then the value of  $(a^2 + b^2)$  would be:

- (a) 10
- (b) 2
- (c) 4
- (d) 5

Q24. A cylindrical pipe of radius  $1.4\,\mathrm{m}$  has water flowing out at  $2.5\,\mathrm{m/s}$  into a cuboidal tank of dimensions  $28\,\mathrm{m} \times 11\,\mathrm{m} \times 25\,\mathrm{m}$ . The flow completely occupies the pipe's cross-section. What percentage of the tank is filled up in  $8\,\mathrm{min}\ 20\,\mathrm{s}$ ?

- (a) 66.66%
- (b) 100%
- (c) 86%
- (d) 75%

Q25. The area of a trapezium of height  $40\,\mathrm{cm}$  is  $1600\,\mathrm{cm}^2$ . One parallel side is  $10\,\mathrm{cm}$  longer than the other side. Find the ratio of the lengths of the parallel sides.

- (a) 7:9
- (b) 5:7
- (c) 3:5
- (d) 2:3

Q26. Some spherical balls of diameter 2.8 cm are dropped into a cylindrical container containing some water and are fully submerged. The diameter of the container is 14 cm. Find how many balls have been dropped in it if the water rises by 11.2 cm.

- (a) 50
- (b) 150
- (c) 250
- (d) 350

Q27. In a competition, a school awarded medals in different categories. 36 medals in dance, 12 medals in dramatics and 18 medals in music. If these medals went to a total of 45 persons and only 4 persons got medals in all the three categories, how many received medals in exactly two of these categories?

- (a) 7
- (b) 5
- (c) 13
- (d) 2

Q28. Let  $u = (\log_2 x)^2 - 6\log_2 x + 12$  where x is a real number. Then the equation  $x^u = 256$  has:

- (a) no solution for x
- (b) exactly one solution for x
- (c) exactly two distinct solutions for x
- (d) exactly three distinct solutions for x

### DIRECTION (Q. 29 30): Each of the following questions is followed by two statements Mark,

- (a) if the question can be answered with the help of statement I alone,
- (b) if the question can be answered with the help of statement II alone,
- (c) if both, statement I and statement II are needed to answer the question, and
- (d) if the statement cannot be answered even with the help of both the statements.

#### Q29. If R is an integer between 1 and 9, P - R = 2370, what is the value of R?

- (a) The question can be answered with the help of statement I alone.
- (b) The question can be answered with the help of statement II alone.
- (c) Both statements I and II are needed to answer the question.
- (d) The question cannot be answered even with the help of both the statements.

#### **Statements:**

- I. P is divisible by 4.
- II. P is divisible by 9.

### Q30. A man distributed 43 chocolates to his children. How many of his children are more than five years old?

- (a) The question can be answered with the help of statement I alone.
- (b) The question can be answered with the help of statement II alone.
- (c) Both statements I and II are needed to answer the question.

(d) The question cannot be answered even with the help of both the statements.

#### **Statements:**

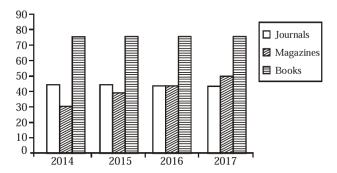
- I. A child older than five years gets 5 chocolates.
- II. A child 5 years or younger in age gets 6 chocolates.

Q31. There are six boxes numbered 1, 2, 3, 4, 5, 6. Each box is to be filled up either with a white ball or a black ball in such a manner that at least one box contains a black ball and all the boxes containing black balls are consecutively numbered. The total number of ways in which this can be done equals:

- (a) 15
- (b) 21
- (c) 63
- (d) 64

DIRECTIONS (Q. 32-35) Answer the questions based on the following graph.

Revenue obtained by a publishing house while selling books, magazines and journals (in lakh).



Q32. Which year shows the highest change in revenue obtained from journals?

- (a) 2013
- (b) 2014
- (c) 2015
- (d) 2016

Q33. In 2016, what per cent of the total revenue came from books?

- (a) 45%
- (b) 55%
- (c) 35%
- (d) 25%

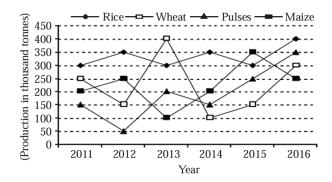
Q34. The number of years in which there was an increase in revenue from at least two categories is

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Q35. If 2017 were to show the same growth as 2016 over 2015, the revenue in 2017 must be  $\frac{1}{2}$ 

- (a) 194 lakh
- (b) 187 lakh
- (c) 172 lakh
- (d) 177 lakh

DIRECTIONS (Q. 36-40): Study the given chart and table carefully to answer the given questions. The graph shows the production of Rice, Maize, Pulses and Wheat in six different years.



Percentage of the total production used under various heads

Year	Export(%) PDS Supply (%) In open ma		In open market (%)
2011	40%	12%	48%
2012	20%	18%	62%
2013	25%	16%	59%
2014	30%	14%	56%
2015	15%	20%	65%
2016	20%	22%	58%

Q36. In 2015 what is the difference between the amount of PDS supply and that used in export ?

- (a) 53000 tonnes
- (b) 56000 tonnes

(c) 54500 tonnes (d) 52500 tonnes Q37. What is the ratio of the production of Pulses to that of Wheat over the six years? (a) 25: 27 (b) 23: 25 (c) 23:28(d) 23: 27 Q38. In which year is the production the minimum? (a) 2012 and 2014 (b) 2015 (c) 2016 (d) 2013 and 2015 Q39. In which year is the quantity of export the maximum? (a) 2011 (b) 2012 (c) 2013 (d) 2014 Q40. In which year is the quantity of PDS supply the minimum? (a) 2011 (b) 2012 (c) 2016 (d) 2015

### Analytical & Logical Reasoning

Input (for Q41-Q45): Rotator 9 Wow 14 18 Orange 11 Radar 3 Unit 9

We decode the machine from the illustration:

- Step 1 brings the *shortest palindromic word* to the front and sends the *largest odd number* to the end; the relative order of the others stays the same.
- Step 2 places (after the first word) all remaining numbers in *ascending order*, followed by the remaining words in *alphabetical order*; the number moved to the end in Step 1 stays at the end.
- Step 3 begins alternating word–number–word–number using the lists formed in Step 2 (with the end number still at the far right).

### Step 1:

Shortest palindrome is **Wow**; largest odd number is **11**.

⇒ Wow Rotator 9 14 18 Orange Radar 3 Unit 9 11

Step 2: (numbers ascending, then words A–Z; 11 stays at end)

Numbers (except 11): 3, 9, 9, 14, 18 Words: Orange, Radar, Rotator, Unit

⇒ Wow 3 9 9 14 18 Orange Radar Rotator Unit 11

Step 3: (alternate word–number; 11 remains last)

⇒ Wow 3 Orange 18 Radar 9 Rotator 14 Unit 9 11

- Q41. Which element comes exactly between '9' and '18' in Step II of the given input?
- (a) Radar
- (b) 14
- (c) Union
- (d) Rotator
- Q42. If in the third step, "9" interchanges its position with "14" and "Orange" also interchanges its position with "Rotator", then which element will be to the immediate right of "18"?
- (a) Radar
- (b) 14
- (c) Union
- (d) Rotator
- Q43. Which of the following combinations represent the third and fifth element from the left end in Step 3 of the given input?
- (a) Orange, Radar
- (b) Orange, 9
- (c) Wow, 18
- (d) Rotator, 11

<ul><li>in Step 2 of the given Input?</li><li>(a) Radar</li><li>(b) 14</li><li>(c) Union</li></ul>	Q44. Which element is fifth to the right of the one which is eighth from the ri	ght
(b) 14	in Step 2 of the given Input?	
	(a) Radar	
(c) Union	(b) 14	
	(c) Union	
(d) Rotator	(d) Rotator	

Q45. In which step are the elements '5 9 14 18 Orange' found in the same order?

- (a) Third
- (b) Fourth
- (c) Second
- (d) First

P is the daughter of Q. R has only two children - P and S. T is the brother of U. S is married to V. R has only two daughters. W is the mother of Q. T is married to P. W is married to X. R is the son of Y.

Q46. P is the daughter of Q. R has only two children — P and S. T is the brother of U. S is married to V. R has only two daughters. W is the mother of Q. T is married to P. W is married to X. R is the son of Y. Who among the following is the father of Q?

- (a) W
- (b) Y
- (c) R
- (d) X

Q47. Who among the following is the sister-in-law of U?

- (a) S
- (b) P
- (c) Q
- (d) W

#### Q48. How is R related to T?

- (a) Father-in-law
- (b) Mother-in-law
- (c) Father

(d) Mother

Bala walked 25km towards west, took a left turn and walked 15km. He again took a left turn and walked 30km. He then took a right turn and stopped.

Q49. Bala walked 25 km towards west, took a left turn and walked 15 km. He again took a left turn and walked 30 km. He then took a right turn and stopped. Now he was facing which direction?

- (a) West
- (b) East
- (c) South
- (d) North

Q50. Instead of turning right at the end if he took left and walked 20 km, what is the shortest distance to his starting point?

- (a)  $3\sqrt{7}$  km
- (b)  $2\sqrt{5} \text{ km}$
- (c)  $7\sqrt{2}$  km
- (d)  $5\sqrt{2}$  km

Q51. If in a certain code CRYSTAL is written as DTJSXFR, then in the same code how is QUANTUM written?

- (a) WRDNXZS
- (b) RWDNYZS
- (c) RWDNXZS
- (d) RWNDXZS

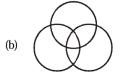
Q52. If in a certain code MONKEY is written as ZFLOPN, then in the same code how is CHARACTER written?

- (a) SFUDBSCID
- (b) SFUDBEBID
- (c) SFUBIDDBS
- (d) SFUDBSBID

Q53. If all the numbers are dropped from the above arrangement, which of the following will be the ninth from the right end?  (a) A  (b) C  (c) X  (d) Y
Q54. Which of the following will be the sixth to the left of the fourteenth from the left end of the above arrangement?  (a) Y  (b) O  (c) U  (d) V
Q55. Which of the following is the fifth to the right of the thirteenth to the left of Q in the given arrangement? (a) X (b) @ (c) U (d) *
Q56. How many such vowels are there in the above arrangement, each immediately preceded by a consonant and immediately followed by a number?  (a) None (b) One (c) Two (d) Three
Q57. How many such symbols are there in the above arrangement, each immediately preceded and also immediately followed by a consonant?  (a) One (b) Two (c) Three (d) Four

Q58. Which of the following diagrams indicates the best relationship between Teacher, Writer and Musician?









Q59. 5, 11, 21, 43, 85, ?

- (a) 185
- (b) 170
- (c) 171
- (d) 181

Q60. ADGJ, YVSP, KNQT, ?

- (a) SVZB
- (b) QTWZ
- (c) OLIF
- (d) LORU

Q61. 12, 27, 85, 345, ?

- (a) 1737
- (b) 1380
- (c) 1725
- (d) 1731

Q62. Some equations are solved on a certain basis. Find  $13 \times 13 = ?$  given:  $5 \times 8 = 28$ ,  $3 \times 7 = 12$ ,  $8 \times 6 = 35$ .

- (a) 169
- (b) 130
- (c) 140
- (d) 144

 $\mathbf{Q63.} \begin{array}{|c|c|c|c|c|}\hline 4 & 7 & 9 \\ \hline 8 & 6 & 8 \\ \hline 3 & 7 & 9 \\ \hline 35 & 49 & ? \\ \hline \end{array}$ 

- (a) 63
- (b) 89
- (c) 81
- (d) 64

Q64.

7	6	8
5	4	9
3	2	1
83	56	?

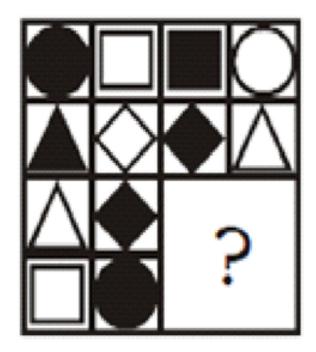
- (a) 146
- (b) 128
- (c) 136
- (d) 148

Q65.

15	225	30
7	70	20
3	?	8

- (a) 70
- (b) 12
- (c) 16
- (d) 24

Q66. Identify the figure that completes the pattern of the question figure.



(a)



(b)



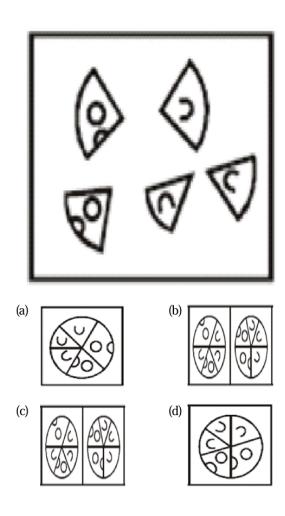




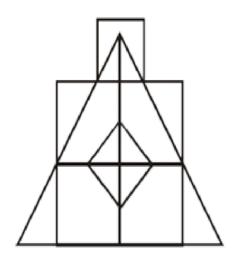
Q67. Five bells begin to ring together and ring respectively at intervals of 6, 5, 7, 10 and 12 seconds. How many times will they ring together in one hour excluding the one at the start?

- (a) 7 times
- (b) 8 times
- (c) 9 times
- (d) 11 times

Q68. Find out which of the answer figures among (a), (b), (c) and (d) can be formed from the pieces given in the question figure.



Q69. Count the number of triangles and squares in the given figure.



- (a) 21 triangles, 7 squares
- (b) 18 triangles, 8 squares
- (c) 20 triangles, 8 squares
- (d) 22 triangles, 7 squares

70. P, Q, R, S, W, X, Y, Z are seated around a circle facing the centre. The husband of Z is second to the right of Q who sits between two males. X sits second to the left of the daughter of S. X is the sister of Y and not an immediate neighbour of Z's husband. Only one person sits between P and X. P is the father of Y. S (brother of Z) sits to the immediate left of his mother. Only one person sits between Z's mother and W. Only one person sits between Z and Y. Y is the mother of R and not an immediate neighbour of W. Which of the following is true?

- (a) R is the cousin of W.
- (b) Q is the mother of Z.
- (c) Z sits third to the left of her daughter.
- (d) No female is an immediate neighbour of R.

### 71. What is the position of P with respect to his grandchild?

- (a) Immediate right (b) Third to the right (c) Third to the left (d) Fourth to the right
- Q72. India's baffling array of state and national labor laws date to the 1940s: one provides for the type and number of spittoons in a factory. Another says an enterprise with more than 100 workers needs government permission to scale back or close. Many Indian businesses stay small in order to remain beyond the reach of the laws. Big firms use temporary workers to avoid them. Less than 15% of Indian workers have legal job security. The new government can sidestep the difficult politics of curbing privileges by establishing a new, simpler labor contract that gives basic protection to workers but makes lay-offs less costly to firms. It would apply only to new hires; the small proportion of existing workers with gold-star protections would keep them. Which of the following options best summarizes the main idea of the paragraph?
- (a) More Indian workers can get permanent jobs and legal job security if existing labor laws are reformed.
- (b) Effective labor law reform can encourage many Indian businesses to grow to more than 100 workers.
- (c) Outdated Indian labor laws need to be simplified to provide basic protection to workers and curb privileges.
- (d) The difficult politics of curbing privileges can be avoided if the changes in the labor law only apply to the new hires.

Q73. Data on planes returning from bombing missions was used to study the vulnerability of airplanes to enemy fire. Analyzing the pattern and frequency of hits from enemy gunfire, it was seen that some parts of planes were hit disproportionately more often than other parts. How could these planes be optimally reinforced with armor plating? There were tradeoffs to consider. Every addition of plating

added to the weight of the plane, decreasing its performance. Therefore, reinforcements needed to be added only to the most vulnerable areas of the planes. Which of the following can be concluded from the above?

- (a) The parts hit disproportionately more than the others have to be reinforced as those received the maximum amount of damage.
- (b) No conclusion can be drawn as the data set is incomplete. There is no data on the planes shot down.
- (c) The parts with the least damage have to be reinforced, as the returning planes have survived attacks to the most damaged areas.
- (d) Reinforcements have to be added to all areas of the plane.

Q74. A watch which gains 5 seconds in 3 minutes was set right at 7 a.m. In the afternoon of the same day, when the watch indicated quarter past 4 o'clock, the true time is:

- (a)  $59\frac{7}{12}$  min. past 3
- (b) 4 p.m.
- (c)  $58\frac{7}{11}$  min. past 3 (d)  $2\frac{3}{11}$  min. past 4

Q75. On 8th Dec, 2007 Saturday falls. What day of the week was it on 8th Dec, 2006?

- (a) Sunday
- (b) Thursday
- (c) Tuesday
- (d) Friday

Q76. What will be the correct mathematical signs that can be inserted in the following?

$$8 - 6 - 2 - 4 - 8 = 28$$

- $(a) \times + \div$
- $(b) \div + \times -$
- $(c) + \div \times$
- $(d) \times \div +$

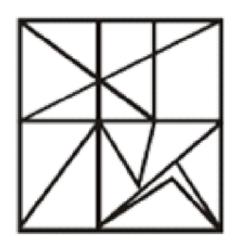
Q77. Find the statement that must be true according to the given information. The Pacific yew is an evergreen tree that grows in the Pacific Northwest. Pacific yew has a fleshy, poisonous fruit. Recently, taxol, a substance found in the bark of the Pacific yew, was discovered to be a promising new anticancer drug.

- (a) Taxol is poisonous when taken by healthy people.
- (b) People should not eat the fruit of the Pacific yew.
- (c) Taxol has cured people from various diseases.
- (d) The Pacific yew was considered worthless until taxol was discovered.

Q78. The Kingston Mall has more stores than the Galleria. The Four Corners Mall has fewer stores than the Galleria. The Kingston Mall has more stores than the Four Corners Mall. If the first two statements are true, the third statement is:

- (a) True
- (b) False
- (c) Uncertain
- (d) None of these

Q79. From the given answer figures, select the one in which the question figure is hidden/embedded.



(a)



(b)



(c)



(d)



Q80. S: Economic security makes people better and happier and has a good influence on their personality.

 $\mathbf{C}$ :

- I. People who earn enough money are happier.
- II. To have a good personality people should be economically sound.
- (a) Only I conclusion follows
- (b) Only II conclusion follows
- (c) Both Conclusions I and II follow
- (d) Neither I nor II follows

### General English

a) move towards b) move ahead of c) move into d) No correction required		
b) move ahead of		
a) move towards		
35. As we life we gain experiences of various kinds.		
d) we should act		
b) we would be acting c) we act		
34. The way we has a decisive effect upon our inner growth.  a) we would act		
d) ideal, procured		
b) integral, guaranteed c) utmost, covered		
a) important, enjoying		
33. The right to livelihood is an $_{}$ facet of the right to life, $_{}$ as a fundament ight under the Constitution.		
d) area, knowledge		
b) reach, game c) availability, concern		
32. Limited of resources and their limited potential is everybody's a) assess, responsibility		
d) advertised, cover		
c) bought, competitive		
b) glamourised, soaring		
orices. a) auctioned, fabulous b) glamourised, soaring		

- (a) had not been in any comfort
- (b) had little comfort
- (c) had been not comfortable
- (d) No correction required

#### 87. I am fully convinced of the integrity of my colleagues.

- (a) Fully convincing of
- (b) Fully convincing about
- (c) Fully convincing of
- (d) No correction required

# 88. The spectators were spellbound at the thrilling sight and at the end, they could not held their applause in appreciation.

- (a) withheld their aplause
- (b) held their applauding
- (c) hold their applaud
- (d) No correction required

### 89. Tokyo is one of the mostly populated cities in the world.

- (a) thickly populated city in
- (b) thickly populated city of
- (c) most populated cities in
- (d) No correction required

#### 90. My colleague made his mark as a lawyer at an early age.

- (a) secured good marks
- (b) distinguished himself
- (c) created a vacancy
- (d) No correction required

### 91. Global warming is a burning problem for this summit.

- (a) A problem that is obvious
- (b) An urgent, important problem
- (c) A dangerous problem
- (d) No correction required

### 92. I \_\_\_\_ you to be home by 8 o'clock.

- (a) expect
- (b) accept
- (c) aspect
- (d) except

### 93. Admission was \_\_\_ ladies.

- (a) limited of
- (b) restricted by
- (c) restricted to
- (d) limited by

### 94. You will come, \_\_\_\_

- (a) won't you
- (b) will you
- (c) shouldn't you
- (d) aren't you

DIRECTIONS: (Q. 95 & 96) Out of the four alternatives, choose the one which best expresses the meaning of the given word.

#### 95. SUPPLE

- (a) Hard
- (b) Round
- (c) Rigid
- (d) Flexible

### 96. SUBMISSIVE

- (a) Obstinate
- (b) Unyielding
- (c) Stubborn
- (d) Docile

DIRECTIONS (Q. 97-101): Read the following passage carefully and answer the questions given below it. Certain words/phrases are in bold to help you locate

them while answering some of the questions.

Scientists have found irrefutable evidence that Mars once had the ingredients for life. This confirmation comes seven months after NASA's rover Curiosity landed on Mars. Analysis of powdered samples drilled out from inside an ancient and once water-soaked rock at the rover's Gale Crater landing site shows clays, sulphates and other minerals that are all key to life, scientists told reporters at NASA head-quarters in Washington on March 12.

The water that once flowed through the area known as Yellowknife Bay, was likely drinkable, said Curiosity's lead scientist John Grotzinger, who is with the California Institute of Technology. The analysis stopped short of a confirmation of organics, which are key to most Earth-like life. But with 17 months left in the rover's primary mission, scientists said they expect to delve further into that question. Science operations currently are suspended because of a computer glitch, which is expected to be resolved shortly. Whether or not Mars has or ever had life, it should have at one time at least had organic compounds delivered to its surface by organic-rich comets and asteroids. Finding places where the organics could have been preserved, however, is a much trickier prospect than finding the environmental niches and chemistry needed to support life, scientists said.

In May, following a one-month interruption of radio communication caused by the positions of Earth and Mars, scientists plan to drill a second hole into the Gale Crater rock to look for organic compounds. "If there was organic material there, it could have been preserved," said David Blake, principal investigator for Curiosity's Chemistry and Mineralogy, or CheMin, experiment. A lack of organics, however, would not rule out the Yellowknife Bay site as suitable for life, scientists added. "You don't have to have carbon present in a geological environment that's habitable in order to have microbial metabolism occur," Grotzinger said. Some micro-organisms on Earth, for example, can feed on inorganic compounds, such as what are found inside rocks. "There does need to be sources of carbon somewhere, but if it's just C, you can have chemoautotrophic organic compounds based on that carbon," Grotzinger said.

Analysis shows the Gale Crater rock contains carbon dioxide, in addition to hydrogen, oxygen, phosphorus, sulphur and nitrogen. Carbon dioxide provides a key ingredient in the building blocks for life, all of which have now been found in the Mars rock sample, Grotzinger said.

The \$2.5-billion, nuclear-powered Curiosity rover landed inside the giant Gale Crater impact basin, located near the Martian equator, on August 6 for a two-year mission. Scientists were drawn to the area because of a five-km mountain of sediment, called Mount Sharp, rising from the crater floor. But shortly after the rover's landing, the team decided to first explore the Yellowknife Bay area, located in the opposite direction from Mount Sharp. Observations from Mars orbiters showed three different types of terrain coming together in Yellowknife Bay, plus a low elevation, all hints that water could have once flowed and pooled on the surface.

#### Q97. Which of the following is not necessarily correct in the context of the passage?

- (a) On the basis of evidence found on Mars scientists have confirmed that ingredients for life once existed on Mars.
- (b) NASA's rover Curiosity landed on Mars near Gale Crater.
- (c) Drinkable water flowed through Yellowknife Bay once.
- (d) Scientists are not sure if organic compounds existed on Mars.

### Q98. What do clays, sulphates and other minerals found near the rover's landing site suggest?

- (a) They suggest that huge volcanic eruptions might have taken place in the remote past.
- (b) They revealed that Mars once had favourable conditions for life.
- (c) The evidence of clay suggests that once water flowed through the area.
- (a) All (a), (b) and (c)
- (b) Only (b)
- (c) Only (c)
- (d) Only (b) and (c)

#### Q99. Find the correct statement according to the passage.

- (a) Though there is no evidence of organics at Yellowknife Bay site yet the possibility of life over there cannot be ruled out.
- (b) There can be no life without carbon or organic compound.
- (c) Even micro-organisms cannot exist in geological environment where there is complete lack of organics.
- (d) The presence of water confirms the existence of life on Mars.

### Q100. Which of the following conclusions can be drawn on the basis of facts mentioned in the given passage?

- (a) Chemoautotrophic organisms with the help of carbon generate organic compounds.
- (b) Life is not possible without carbon.
- (c) Some of the micro-organisms on Earth can feed on inorganic compounds.
- (d) Gale Crater contains not only hydrogen, oxygen and phosphorus but also carbon dioxide.

### Q101. What is the meaning of the word 'irrefutable' as used in the given passage?

- (a) indefinite
- (b) dubious
- (c) questionable
- (d) indisputable

Q102. Choose the word opposite in meaning to the given word: PAUCITY (a) Paragon (b) Pronounce (c) Plethora
Q103. Choose the word opposite in meaning to the given word: HOSTILE  (a) Joyful  (b) Helpful  (c) Friendly  (d) Persuade  (e) Violent
Q104. Read each sentence to find out whether there is any grammatical or idiomatic error. (a) The car flew off the road (b) and fell into the valley because (c) Harish was driving faster (d) No error
Q105. Read each sentence to find out whether there is any grammatical or idiomatic error. (a) You may choose (b) any (c) of the two subject (d) No error
Q106 is used to indicate possession.  (a) Hyphen (b) Apostrophe (c) Semi Colon (d) Period
Q107 is used to mark the end of declarative and imperative sentences.  (a) Semicolon (b) Comma (c) Dash (d) Period
Q108. When a subordinate clause is followed by the main clause, is required.  (a) Dash (b) Semi-colon

- (c) Comma
- (d) Colon

### Q109. Can you give me \_\_\_ details, please?

- (a) faster
- (b) further
- (c) farther
- (d) further

# Q110. By the time he was eighteen years old, Peter $_{--}$ to make a living and support his family.

- (a) begins
- (b) began
- (c) started beginning
- (d) would begin

#### Q111. FLIMSY: STURDY

(a) prognosis : diagnosis(b) gauche : eloquent(c) flippant : earnest(d) drizzle : downpour

#### Q112. GREGARIOUS: OUTGOING

(a) groggy : lucid(b) grouchy : irritable(c) aggressive : extrovert(d) gritty : sociable

# Q113. Choose the option in which the usage of the word "for" is incorrect or inappropriate.

- (a) He has a great eye for detail.
- (b) We are waiting for the day.
- (c) I can't bear for her to be angry.
- (d) It couldn't be done for ever.

### Q114. Choose the option in which the usage of the word "slam" is incorrect or inappropriate.

- (a) I heard the door slam behind him.
- (b) She slammed down the phone angrily.
- (c) She slammed his face hard.
- (d) The car skidded and slammed into a tree.

### Q115. The sentences (A–E) when properly sequenced form a coherent paragraph. Choose the most logical order.

- (A) Similarly, turning to caste, even though being lower caste is undoubtedly a separate cause of disparity, its impact is all the greater when the lower-caste families also happen to be poor.
- (B) Belonging to a privileged class can help a woman to overcome many barriers that obstruct women from less thriving classes.
- (C) It is the interactive presence of these two kinds of deprivation—being low class and being female—that massively impoverishes women from the less privileged classes.
- (D) A congruence of class deprivation and gender discrimination can blight the lives of poorer women very severely.
- (E) Gender is certainly a contributor to societal inequality, but it does not act independently of class.
- (a) EABDC
- (b) EBDCA
- (c) DAEBC
- (d) BECDA

### Q116. The sentences (A–E) when properly sequenced form a coherent paragraph. Choose the most logical order.

- (A) This is now orthodoxy to which I subscribe—up to a point.
- (B) It emerged from the mathematics of chance and statistics.
- (C) Therefore the risk is measurable and manageable.
- (D) The fundamental concept: Prices are not predictable, but the mathematical laws of chance can describe their fluctuations.
- (E) This is how what business schools now call modern finance was born.
- (a) ADCBE
- (b) EBDCA
- (c) ABDCE
- (d) DCBEA

### DIRECTIONS (Q. 117 & 118): Select the most suitable synonym for the underlined word in the sentence.

Q117. The policy announcement was made to the much chagrin of the farmers.

- (a) euphoria
- (b) placation
- (c) glee
- (d) Mortification

Q118. The leader summoned the group and told that the time has come to act and no
genuflect.
$\frac{\Im}{(a) \text{ grovel}}$
(b) procrastinate
(c) renounce
(d) incriminate
(d) incriminave
Q119. Alleviate: Aggravate:: Elastic:
(a) Rigid
(b) Flexible
(c) Malleable
(d) Strong
Q120. Benevolent : Kind :: Unclear :
(a) Bright
(b) Thick
(c) Luminous
(d) Muddy
General Awareness
121 The Minister of Defence and National Security of Fiji Ratu Incke Kubuahal

121. The Minister of Defence and National Security of Fiji, Ratu Inoke Kubuabola signed an MoU with the Minister of Defence, Finance and Corporate Affairs, Shri

Arun Jaitley, recently. What is the capital of Fiji?

- (a) Baku
- (b) Suva
- (c) Samona
- (d) Paloha

Q122. Which Indian sportsperson has been appointed as the WHO Goodwill Ambassador for physical activity in the South-East Asia Region (SEAR)?

- (a) Mary Kom
- (b) Milkha Singh
- (c) Pullela Gopichand
- (d) Abhinav Bindra

<b>123.</b> .	Asian Infrastructure	Investme	ent Bank (AIIB	) has ap	proved <b>U</b>	$USD~150~\mathrm{m}$	illion
equit	y investment loan to	the India	Infrastructure	Fund. I	it is the	bank's first	such
loan 1	to fund private proje	ects. AIIE	B based in-?				

- (a) France
- (b) Australia
- (c) China
- (d) Germany

Q124. Which bank has started insolvency resolution process against Lanco Infratech Ltd. following a directive from the Reserve Bank of India (RBI), while this is the first resolution process initiated by the lenders against 12 large borrowers identified by the RBI recently?

- (a) State Bank of India
- (b) IDBI Bank
- (c) Punjab National Bank
- (d) Bank of India

125. Which Indian student has been selected to represent India as young journalist at the global Football for Friendship (F4F) social programme?

- (a) Satnam Bhamara
- (b) Ananya Kamboj
- (c) Shekhar Ramamurthy
- (d) Samar Singh Sheikhawat

126. The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal. These three banks remained at the apex of modern banking in India till their amalgamation as the Imperial Bank of India on 27 January — ?

- (a) 1961
- (b) 1956
- (c) 1949
- (d) 1921

Q127. Who has won the Baileys Women's Prize for Fiction 2015?

- (a) Ali Smith
- (b) Rachel Cusk
- (c) Anne Tyler
- (d) Sarah Waters

128. The highest multipurpose dam built on the river Ravi is —?
(a) Bhakra Nangal
(b) Kahalgaon
(c) Ranjit Sagar Dam
(d) Rihand Dam

Q129. The District Primary Education Programme in India is supported by:

- (a) International Monetary Fund
- (b) World Bank
- (c) UNESCO
- (d) Japanese Government

Q130. Which of the following Mahatma Gandhi series of currency notes issued by RBI has "ecology" depicted on it?

- (a) 500
- (b) 100
- (c) 50
- (d) 5

131. Which country is providing technology to develop the coastal road project in Maharashtra?

- (a) Netherlands
- (b) Japan
- (c) China
- (d) Australia

132. The first BRICS film festival has begun in which of the following cities in India?

- (a) New Delhi
- (b) Bhopal
- (c) Jaipur
- (d) Goa

Q133. Which of the following state governments has signed a memorandum of understanding (MoU) with the Ministry of Civil Aviation to develop 11 airports and airstrips to boost regional connectivity recently?

- (a) Kerala
- (b) Gujarat
- (c) Rajasthan
- (d) Madhya Pradesh

### 134. Who is the newly elected President of Mongolia?

- (a) Sainkhuugiin Ganbaatar
- (b) Miyeegombyn Enkhbold
- (c) Tsakhiagiin Elbegdorj
- (d) Khaltmaagiin Battulga

### 135. Name the agency, which is an agency to provide 'soft loans' to developing countries.

- (a) Asian Infrastructure Investment Bank (AIIB)
- (b) Organization of the Petroleum Exporting Countries (OPEC)
- (c) Asian Development Bank (ADB)
- (d) International Development Association (IDA)

# 136. Which one of the following does not appear on the abacus of the Sarnath Lion capital of Ashoka?

- (a) Bull
- (b) Deer
- (c) Elephant
- (d) Horse

### 137. Which authority recommends the principles governing the grants-in-aid of the revenues of the states out of the Consolidated Fund of India?

- (a) Public Accounts Committee
- (b) Union Ministry of Finance
- (c) Finance Commission
- (d) Inter State Council

### 138. Which city hosted the 2017 World Food India (WFI)?

- (a) Kochi
- (b) New Delhi
- (c) Chandigarh

139. The tax which was called —? (a) Bali (b) Vidatha (c) Varman (d) Kara	the kings used to collect from the people in the Vedic perio
140. Which of the Olympic Games? (a) St Petersburg (b) Tokyo (c) Madrid (d) Istanbul	following cities won the right to host the 2020 edition of th
141. World's first I was launched by — (a) ICICI Bank (b) Kotak Mahindra I (c) IndusInd Bank (d) Central Bank	

(d) Surat

(a) Hamburg(b) Berlin(c) Frankfurt(d) Stuttgart

143. Which city is hosting the 12th edition of G-20 Summit 2017?

<b>144.</b>	The	'Seven	Pagodas'	of Mahabalipuran	n are a	witness	$\mathbf{to}$	$\mathbf{the}$	$\operatorname{art}$	patroni	ized
by tl	ne —	?									

- (a) Pallavas
- (b) Pandyas
- (c) Cholas
- (d) Cheras

### 145. The Phillips curve is the schedule showing the relationship between —?

- (a) Aggregate supply and demand
- (b) Total saving and investment
- (c) The rate of unemployment and rate of inflation
- (d) Demand for and supply of loanable funds

#### 146. Mantle of the earth crust is —?

- (a) A layer with the composition of semi-solid mineral matter
- (b) A layer with the composition of fluid mineral matter
- (c) A layer with the composition of semi-fluid mineral matter
- (d) A layer with the composition of gaseous mineral matter

# 147. "Dulari Kanya" scheme has been launched by which state government to check infant mortality?

- (a) Arunachal Pradesh
- (b) Himachal Pradesh
- (c) Madhya Pradesh
- (d) Andhra Pradesh

# 148. Which of the following companies inked pact with Microsoft India to offer telecom and IT solutions for big businesses promoting the demand for IT and cloud services?

- (a) BHEL
- (b) ONGC
- (c) IRCTC
- (d) BSNL

### 149. Who wrote the line: "A thing of beauty is a joy forever"?

- (a) John Keats
- (b) Robert Browning
- (c) P.B. Shelley
- (d) William Wordsworth

### 150. The Tadoba Andhari Tiger Reserve (TATR) is located in which state?

- (a) Tamil Nadu
- (b) Karnataka
- (c) Maharashtra
- (d) Goa