Quantitative Aptitude

Directions (1-5): What will come in place of question mark (?) in the following number series?

**Ques 1** 1, 7, 49, 343, (?)

a) 16807  
b) 1227  
c) 2058  
d) 2401  
e) None of these

**Ques 2** 13, 20, 39, 78, 145, (?)

a) 234  
b) 244  
c) 236  
d) 248  
e) None of these

**Ques 3** 12, 35, 81, 173, 357, (?)

a) 725  
b) 715  
c) 726  

**Ques 4** 3, 100, 297, 594, 991, (?)

a) 1489  
b) 1479  
c) 1478  
d) 1498  
e) None of these

**Ques 5** 112, 119, 140, 175, 224, (?)

a) 277  
b) 276  
c) 287  
d) 266  
e) None of these

Direction : (6-10) What approximate value should come in place of question mark in the following equations.

**Ques 6** \( \frac{6.23}{34.98} \times 24.999 = ? \)

a. 560  
b. 540
Ques 7) What approximate value should come in place of the question mark (?) in the following questions. 25.675% of 1321 + 64.328% of 4001= ?

a. 2520  
b. 2020  
c. 2550  
d. 2890  
e. 2000

Ques 8) \(22 \frac{1}{3}\% \text{ of } 435.1 - \frac{11}{7} \text{ of } 1734.68 = ?\)

a. 59  
b. 62  
c. 50  
d. 69  
e. 78

Ques 9) \((1681)^{\frac{1}{2}} + (4094)^{\frac{1}{4}} = ?\)

a. 57  
b. 75  
c. 78  
d. 67  
e. 76

Ques 10) \((803.63)^2 = ?\)

a. 506000  
b. 787800  
c. 646400  
d. 767600  
e. 566000

Direction (11-15) In each of these questions’ two equations are given. You have to solve these equations and give answer

Ques 11)

I. \(x^2 - 6x = 7\)

II. \(2y^2 + 13y + 15 = 0\)

a. if \(x < y\)  
b. if \(x > y\)  
c. if \(x = y\) or relation cannot be established  
d. if \(x \geq y\)  
e. if \(x \leq y\)

Ques 12)

I. \(3x^2 - 7x + 2 = 0\)

II. \(2y^2 - 11x + 15 = 0\)

a. if \(x < y\)  
b. if \(x > y\)  
c. if \(x = y\) or relation cannot be established  
d. if \(x \geq y\)  
e. if \(x \leq y\)
**Ques 13)**

I. \(10x^2 - 7x + 1 = 0\)

II. \(35y^2 - 12y + 1 = 0\)

a. if \(x < y\)

b. if \(x > y\)

c. if \(x = y\) or relation cannot be established

d. if \(x \geq y\)

e. if \(x \leq y\)

**Ques 14)**

I. \(4x^2 = 25\)

II. \(2y^2 - 13y + 21 = 0\)

a. if \(x < y\)

b. if \(x > y\)

c. if \(x = y\) or relation cannot be established

d. if \(x \geq y\)

e. if \(x \leq y\)

**Ques 15)**

I. \(3x^2 + 7x = 6\)

II. \(6(2y^2 + 1) = 17y\)

a. if \(x < y\)

b. if \(x > y\)

c. if \(x = y\) or relation cannot be established

d. if \(x \geq y\)

e. if \(x \leq y\)

**Direction (16-20)** Refer to the following pie charts and solve the questions based on it.
Ques 16) Both the families decide to double the total expenditure keeping the pattern of spending the same as given above. What will be the new ratio of expenditure on food between family A and family B?

- a) 18 : 31
- b) 31 : 27
- c) 2 : 3
- d) 3 : 2
- e) None of The Above

Ques 17) If the total expenses of family B increases three-fold, keeping the expenses on education the same as given above, what will be the expense on education?

- a) 6.33%
- b) 57%
- c) 19%
- d) 18%
- e) None of The Above

Ques 18) What will be the expenses on light by family A, as a percentage of expense on light by family B?

- a) 120%
- b) 83.33%
- c) 62.5%
- d) 66.66%
- e) None of The Above
**Ques 19**) If family A and family B decide to combine their expenses, then which one of the following heads will be responsible for the highest expenses?

a) Rent  
b) Miscellaneous  
c) Food  
d) Education  
e) None of The Above

**Ques 20**) In the above question, how many heads will have a lower percentage share in the combined total expenses of both the families than the percentage share of family B under the same head?

a) 1  
b) 2  
c) 3  
d) 4  
e) None of The Above

Direction (21-25) Study the following bar graph and table carefully to answer the questions given below:

The following bar graph shows data related to population of different states (in lakhs) in the year 1992.

![Bar graph showing population data for different states.]

The following table shows the ratio between male, female and literacy, illiterate and also graduates and under graduates.

<table>
<thead>
<tr>
<th>State</th>
<th>Population (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar</td>
<td>6</td>
</tr>
<tr>
<td>AP</td>
<td>5</td>
</tr>
<tr>
<td>HP</td>
<td>4</td>
</tr>
<tr>
<td>Haryana</td>
<td>3</td>
</tr>
<tr>
<td>Odisha</td>
<td>3</td>
</tr>
<tr>
<td>Assam</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Literacy</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Different states | Male and female | Literacy and illiterate | Graduates and undergraduates |
--- | --- | --- | --- |
Bihar | 3 : 2 | 1 : 4 | 4 : 7 |
AP | 4 : 6 | 4 : 1 | 6 : 7 |
HP | 3 : 4 | 2 : 1 | 3 : 2 |
Haryana | 5 : 4 | 3 : 2 | 7 : 8 |
Odisha | 2 : 3 | 2 : 3 | 4 : 5 |
Assam | 2 : 1 | 7 : 2 | 6 : 7 |

**Ques 21** If in the year 1993 there was an increase of 10% population of AP. and 12% of Bihar compared to the previous year, then what was the ratio of the population of AP. to Bihar?

a. 521:540  
b. 405:530  
c. 408:505  
d. 407:560  
e. None

**Ques 22** What was the approximate percentage of women of Andhra Pradesh to the women of HP?

a. 90%  
b. 110%  
c. 120%  
d. 126%  
e. 95%

**Ques 23** If 70% of total no of literate population in Assam are graduate what is the total no of undergraduates in the Assam in the year 1992?

a. 65300  
b. 70000  
c. 62021  
d. 82120  
e. None

**Ques 24** In Haryana, if 70% of the females are literate and 75% of the males are literate, what is the total number of illiterates in the state?

a. 12,2500  
b. 85,000  
c. 84,000  
d. 81,000  
e. None

**Ques 25** What is the ratio of literates in Assam to **RBI Assistant : Model Paper - 1**
the literates in Bihar?

a. 2 : 5
b. 3 : 5
c. 7 : 15
d. 2 : 3
e. None

Ques 26) Two cars of same length are running in the same direction with speed 60 kmph and 90 kmph. The latter completely cross the man in 24 sec. The length of each bus is

a. 100
b. 200
c. 250
d. 150
e. None of these

Ques 27) Two equal bottles are filled with water and milk. The amount of water in each container is 20% and 30%. What is the ratio of milk in both the bottles respectively?

a. 3:4
b. 5:6
c. 8:7
d. 9:8
e. None of these

Ques 28) Ravi bought a car at 30% discount on its original price. He sold it with 50% increase on the price he bought it. The new sale price is by what percent more than the original price?

a. 2%
b. 4%
c. 8%
d. 5%
e. 1%

Ques 29) Among a group of 5 men and 6 women, 4 members are to be selected for an event. Find the probability that at least one man is selected?

a. 21/22
b. 10/12
c. 8/9
d. 5/4
e. 2/3

Ques 30) Two pipes can fill the tank in 4 hrs and 5 hrs respectively while the third pipe can empty the tank in 20 hrs, if all the pipes are opened together, then the tank will be filled in

a. 4 (1/2) hrs
b. 2 (1/2) hrs
Ques 31) From the salary, Pavan spent 15% for house rent, 5% for children’s education and 15% for Entertainment. Now he left with Rs.26,000. His salary is

- a. 20000
- b. 25000
- c. 28000
- d. 35000
- e. 40000

Ques 32) A and B invested in a business. They earned some profit which they divided in the ratio of 2:3. If P invested Rs.15,000, the amount invested by B is

- a. 21500
- b. 20500
- c. 22500
- d. 23000
- e. 25000

Ques 33) Milk and water are in the ratio of 3:2 in a mixture of 70 liters. How much water should be added so that the rate of milk and water become 2:3?

- a. 20
- b. 28
- c. 35
- d. 40
- e. 50

Ques 34) Length of a rectangle is reduced by 40%. By what percent would the width have to be increased to maintain the original area?

- a. 66.66%
- b. 50.55%
- c. 44.44%
- d. 40.45%
- e. 20.22%

Ques 35) P and Q can complete a job in 24 days working together. P alone can complete it in 32 days. Both of them worked together for 8 days and then P left. The number of days Q will talk to complete the remaining work is

- 1. 62
Directions (Q.36 – Q.45): Read the following passage carefully and answer the questions given below it.

India's tourism industry is experiencing a strong period of growth, driven by the burgeoning Indian middle class, growth in high spending foreign tourists, and coordinated government campaigns to promote 'Incredible India'. The tourism industry in India is substantial and vibrant, and the country is fast becoming a major global destination. India's travel and tourism industry is one of them most profitable industries in the country, and also credited with contributing a substantial amount of foreign exchange. This is illustrated by the fact that during 2006, four million tourists visited India and spent US $8.9 billion. Several reasons are cited for the growth and prosperity of India's travel and tourism industry. Economic growth has added millions annually to the ranks of India's middle class, a group that is driving domestic tourism growth. Disposable income in India has grown by 10.11% annually from 2001-2006, and much of that is being spent on travel. Thanks in part to its booming IT and outsourcing industry a growing number of business trips are made by foreigners to India, who will often add a weekend break or longer holiday to their trip. Foreign tourists spend more in India than almost any other country worldwide. Tourist arrivals are projected to increase by over 22% per year through till 2010, with a 33% increase in foreign exchange earnings recorded in 2004. The Tourism Ministry has also played an important role in the development of the industry, initiating advertising campaigns such as the 'Incredible India' campaign, which promoted India's culture and tourist attractions in a fresh and memorable way. The campaign helped create a colorful image of India in the minds of consumers all over the world, and has directly led to an increase in the interest among tourists. The tourism industry has helped growth in other sectors as diverse as horticulture, handicrafts, agriculture, construction and even poultry. Both directly and indirectly, increased tourism in India has created jobs in a variety of related sectors. The numbers tell the story: almost 20 million people are now working in the India's tourism industry. India's governmental bodies have also made a significant impact in tourism by requiring that each and every state of India have a corporation to administer support issues related to tourism. A new growth sector is medical tourism. It is currently growing at around 30% per annum. Medical tourist arrivals are expected to reach one million soon. Medical tourism in Asia has grown rapidly. Medical tourism is approaching fever pitch at the tune of $4
billion US, fuelled largely by the cosmetic surgery market. One of the problems India has, despite having some world-class hospitals, is sanitation. The tourism industry of India is based on certain core nationalistic ideals and standards which are: Swaagat or welcome, Sahyog or cooperation, Soochanaa or information, Sanrachanaa or infrastructure, Suvidha or facilitation, Safaai or cleanliness and Surakshaa or security.

**Ques 36)** Choose the word which is MOST OPPOSITE in meaning of the word burgeoning as used in the passage?
1) thriving
2) sprouting
3) incorporating
4) decreasing
5) growing

**Ques 37)** Find the correct statement on the basis of the given passage.
(A) The tourism industry in our country manages to attract the world tourist.
(B) India has continued to represent a place much sought after for its diversity.
(C) India has potential to emerge as one of the world's tourist hot spots.
1) Only (A)
2) Only (C)
3) Both (A) and (B)
4) All (A), (B) and (C)
5) Other than given options

**Ques 38)** Choose the word which is MOST SIMILAR in meaning to the word "cited" as used in the passage?
1) pointed out
2) withheld
3) inserted
4) imputed
5) sourced

**Ques 39)** Which of the following statements correctly represent(s) the reason behind the expansion of India's travel and tourism Industry?
1) India is a vast country of great beauty and diversity.
2) India's vast cultural heritage
3) The successful launch of very penetrative ad campaign
4) Business trips to India
5) All of the above

**Ques 40)** What is the meaning of the phrase “fever pitch” as used in the passage?
1) A high degree of excitement
2) A state of suffering
3) Beyond the expectations
4) Meeting the target
5) Other than given options
Ques 41) Which of the following is false in respect of India's medical tourism?

1) India's medical tourism sector is expected to experience an annual growth rate of 30%.
2) An estimated one million tourists will travel to India for healthcare procedures every year.
3) The advantage of medical treatment in India includes reduced costs not the availability of latest medical technologies.
4) All 1), 2) and 3)
5) Other than given options

Ques 42) Give a suitable title to the given passage.

1) Medical tourism in India
2) Tourism Industry–A special focus of India
3) Foreign tourist arrival and forex earning in India
4) Domestic Tourism in India
5) Employment Opportunities in Tourism

Ques 43) The author in the given passage is

A) skeptical about the growth of India's medical tourism
B) of the view that lots of efforts can bring about significant changes in India's tour and travel industry.
C) not in favour of investing on various ads

1) Only A
2) Only B
3) Only C
4) Both A and C
5) Both B and C

Ques 44) As mentioned in this passage, in order to developing the tourism industry the role of the tourism ministry is

1) Considerable
2) Imperceptible
3) Unique
4) Ambiguous
5) Other than given options

Ques 45) Which of the following statement is true about "Incredible India" campaign?

1) It is a window policy to boost the direct as well as indirect investment in tourism.
2) It promotes India as a tourism destination.
3) It pledges for best services in Air India and in Indian Rail.
4) Only 1) and 2)
5) All 1), 2) and 3)

Directions (46-55): Fill in the blanks choosing the word that is most appropriate in the context of the passage.
Russia may not be the first country that
comes (1) when thoughts turn to international
studies. But the truth is that this oft-underestimated,
increasingly innovative country boast a long list of
amazing offerings for students from all over the
globe. Wondering what's waiting for you there? Let's
count down five reasons to include Russia on your list
of (2) international study destinations. As the world's
largest country, it's hardly (3) that Russia is home to
so many universities -- 950 of them, to be exact. What
may come as a surprise? How many of its higher
education institutions offer world-class,
globally (4) educational opportunities. Russia now
participates in the Bologna Process, and many of its
premier universities are members of the European
Universities Association. A whopping 22 Russian
universities, meanwhile, earned spots on the QS
World University Rankings 2016-2017. Russia recently
earned a plum spot (5) Bloomberg's roundup of the
world's most innovative economies, but its innovative
spirit is not limited to the financial sector. A Russian
education uniquely fuses traditional academic (6) with
a commitment to innovation in the form of
competency-based education across a breadth and
depth of areas of study. And while we'd be lying if we
didn't say that studying in Russia was demanding, a
degree (7) a Russian institution is highly (8) by the
world's employers -- making it well worth the effort.
There's a reason why Russia's best and brightest high
school grads fight so (9) for sought-after spots at the
country's universities. From engineering and
economics to law and medicine, Russia offers near-
endless opportunities for academic (10).

Ques 46)
a. in 
b. to 
c. up 
d. out

Ques 47)
a. conjuncture 
b. specific 
c. probable 
d. prospective

Ques 48)
a. surprising 
b. confusing 
c. believable 
d. ignoring

Ques 49)
a. admitted 
b. accepted 
c. famed 
d. recognised

Ques 50)
a. in 
b. at
c. on
d. out

**Ques 51)**

a. destitution,
b. indigence
c. privation
d. rigours

c. melioration
d. exaltation

**Directions (56-65): Read each sentence to find out whether there is any grammatical 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), i.e no error. (Ignore the errors of punctuation, if any.)**

**Ques 56.** We shall be calling a meeting (a)/ next week to assess (b)/ the causes of frequently (c)/ delays in infrastructure projects. (d)/ No error (e)

**Ques 57.** The committee has made (a)/ significant changes (b)/ in the rules which (c)/ will help to banks. (d)/ No error (e)

**Ques 58.** Graduates have experience (a)/ in the IT industry (b)/ are in great demand (c)/ in the finance sector. (d)/ No error (e)

**Ques 59.** Although it has received (a)/ clearance from RBI the bank (b)/ has decided not to open (c)/ their office in Malaysia. (d)/ No error (e)

**Ques 60.** English is derived from the Anglo-Saxon, (a)/ a West Germanic language, (b)/ although it's current vocabulary includes (c)/ words from many languages. (d)/ No error. (e)

**Ques 61.** Helen Keller has proved (a)/ how language could (b)/ liberate the (c)/ blind and the deaf. (d)/ No error (e)
Ques 62) Half of the term have passed and yet I have not done much reading. (a)/ I am afraid that I may not (b)/ catch up with others. (c)/ What is worse? I may fail. (d)/ No error (e)

Ques 63) Aggression in some teenage boys (a)/ may be linkage to overly (b)/ large glands in their brains, (c)/ a new study has found. (d)/ No error (e)

Ques 64) The tennis player easy through (a)/ the opening set before her opponent, (b)/ rallied to take the final two sets (c) / for the biggest victory of her young career. (d)/ No error (e)

Ques 65) In response to the growing crisis, (a)/ the agency is urgently asking for (b)/ more contributions, to make up for (c)/ its sharp decline in purchasing power. (d)/ No error (e)

Reasoning

Directions (Q.66 -70) Study the following information carefully and answer the questions given below:

8 persons - Ekam, Ford, Gabbar, Himmat, Inpreet, Johny, Karma and Loveleen - are sitting around a circle at equidistance but not necessarily in the same order. Some of them are facing towards the centre while some others are facing outside the centre.

Loveleen is sitting 3rd to the left of Karma. Both Karma and Loveleen are facing towards the outside. Himmat is not an immediate neighbour of Karma or Loveleen. Johny faces the just opposite direction of Himmat. (It implies that if Himmat is facing towards the centre, Johny would face outside the centre). Johny is sitting 2nd to the left of Himmat. Both the immediate neighbours of Gabbar face just opposite direction of Gabbar. Ekam is an immediate neighbour of Karma.

Ques 66) Who amongst the following are not facing towards the centre?
1) Ekam, Ford and Inpreet
2) Ford, Gabbar and Johny
3) Himmat, Karma and Loveleen
4) Gabbar, Inpreet and Johny
5) None of these

Ques 67) What is the position of Gabbar with respect to Ekam?
   a) 2nd to the left   b) 3rd to the right   c) 4th to the left
   d) 2nd to the right   e) 5th to the right

Ques 68) Who among the following is sitting exactly between Ford and Karma?
1) Johny  2) Inpreet  3) Ekam
4) Gabbar  5) None of these

Ques 69) How many persons are sitting between Himmat and Karma if we move clockwise starting from Himmat?
1) Three 2) Four 3) Five
4) Two 5) One

Ques 70) Which of the following statements is not true regarding the given sitting arrangement?
1) Loveleen is sitting exactly between Gabbar and Inpreet
2) Himmat is sitting 3rd to the right of Karma
3) Ford and Inpreet are sitting just opposite to each other
4) Ekam is sitting 3rd to the left of Gabbar
5) All are true

Ques 71) Statements
H ≥ I = J > K ≤ L
Conclusions
I. K < H
II. L ≥ I

Ques 72) Statements
S > C ≥ O, P < C
Conclusions

Ques 73) Statements
A = B ≤ C, A > R
Conclusions
I. B > R
II. R < C

Ques 74. Statements
D > E ≤ F, J < F
Conclusions
I. D > J
II. E < J

Ques 75) Statements
P < Q > T, R ≥ Q
Conclusions
I. R > P
II. T < R

Direction (71-75) In these questions, relationship between different elements is shown in the statements. These statements are followed by two conclusions. Give Answer
(A) If only Conclusion I is true
(B) If only Conclusion II is true
(C) If either Conclusion I or II is true
(D) If neither Conclusion I nor II is true
(E) If both conclusions I and II is true

Direction (76-79) A word and number arrangement machine when given an input line of words and numbers rearrange them following a particular rule. The following is an illustration of input and rearrangement. (Single digit numbers are preceded by a zero. All other numbers are two digit numbers )

Input: whether 15 wish you 08 being 48 come 68 hour 124 86
Step I: being whether 15 wish you 08 48 come 68 hour 124 86
Step II. being 08 whether 15 wish you 48 come 68 hour 124 86
Step III. being 08 come whether 15 wish you 48 68 hour 124 86
Step IV. being 08 come 15 whether wish you 48 68 hour 124 86
Step V. being 08 come 15 hour whether wish you 48 68 124 86
Step VI. being 08 come 15 hour 48 whether wish you 68 124 86
Step VII. being 08 come 15 hour 48 whether 68 wish you 124 86
Step VIII. being 08 come 15 hour 48 whether 68 wish 86 you 124
Step VIII. is the last step of the arrangement of the above input as the intended arrangement is obtained. As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input: new 59 personnel 68 28 teacher price grievance 32

Ques 76) How many steps would be needed to complete the arrangement?
1) V 2) VI 3) VIII 4) VII 5) Cannot be Determined

Ques 77) Which of the following would be the final arrangement?
1) grievance 10 new 28 personnel 32 price 59 68 teacher
2) grievance new personnel price teacher 10 28 32 59 68
3) grievance 10 new 28 personnel 32 price 59 teacher 68
4) grievance 68 new 59 price 32 personnel 28 new 10
5) None of these

Ques 78) Which of the following would be step I?
1) grievance new 59 personnel 28 teacher 10 price 32
2) 10 grievance new 59 personnel 68 28 teacher price 32
3) grievance 10 new 59 personnel 68 28 teacher price 32
4) 10 grievance new 59 personnel 68 28 teacher price 32
5) grievance new 59 personnel 68 28 teacher 10 price 32

Ques 79) Which word/number would be the sixth position from the left end in step III?
1) personnel 2) price 3) 68 4) 32 5) teacher

Directions (Q. 80-84) Study the following information carefully and answer the questions given below:

Five friends Pawan, Qureshi, Rajan, Sultan and Tango are Musician, Architect, Doctor, Engineer and Artist by profession and like White, Blue, Red, Yellow and Green colour but not necessarily in that order. Their hobbies are Net Surfing, Gardening, Reading, Painting, ...
and Dancing but not necessarily in the same order. The person whose hobby is dancing preferred lemonade to cola while others preferred cola to lemonade in beverages.

- The four friends who took cola were Pawan, the one who is an Engineer, the person whose favourite colour is Green and the one whose hobby is net surfing.
- Sultan did not take lemonade and his favourite colour is White.
- Qureshi’s favourite colour is Blue. He did not like lemonade.
- Tango’s hobby is not painting, reading or gardening.
- Sultan clicks a picture of his friend who is an Engineer.
- The person whose favourite colour is Red likes painting and the person who is artist likes gardening.
- Sultan is not a doctor. The person who is a doctor takes cola. The person who is an Engineer likes Blue colour.
- The musician’s favourite colour is not Yellow. Rajan’s favourite colour is Green.

**Ques 80**) Who among the following is a Doctor?

a) Rajan  b) Pawan  c) Sultan  
d) Can’t say  e) None of these

**Ques 81**) Qureshi’s hobby is

1) Reading  2) Painting  3) Gardening  
4) Can’t say  5) None of these

**Ques 82**) The person who likes Blue colour is a/an

a) Architect  b) Musician  c) Engineer  
d) Can’t say  e) None of these

**Ques 83**) Whose favourite colour is Yellow?

1) Tango  2) Rajan  3) The one who is an artist  
4) Can’t say  5) None of these

**Ques 84**) Which of the following combinations is not correctly matched?

a) Tango-Architect-Yellow-Dancing-Cola  
b) Rajan-Artist-Green-Gardening-Cola  
c) Qureshi-Engineer-Blue-Reading-Cola  
d) Pawan-Doctor-Red-Painting-Cola  
e) None of these

**Direction (85-89)** This question consists of a question and two statements numbered I and II given below it you have to decide whether the data given in the statements are sufficient to answer the questions. Read both the statements and choose the most appropriate option

Select answers for the questions from below mentioned options

a. The data in both statements I and II together are necessary to answer the question  
b. The data in statement II alone are P sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
c. The data even in both statements I and II together are not sufficient to answer the question
d. The data either in statement I alone or statement II alone are sufficient to answer the question
e. The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not

Ques 85) How is “life” written in the code language?
(I) ‘life on other planets’ is written as 9648 ‘planets on other side’ is written as ‘4596
(II) “Documentary on actor’s life’ is written as “’2981’ and ‘living life on edge’ is written as 9837

Ques 86) Among P, Q, R, S and T, seated in a straight line facing north, who sits second from the right end of the line?
(I) T sits second to left of R. Only one person sits between T and Q. S is an immediate neighbor of T
(II) Q sits at one of the extreme ends of the line. Only one person sits between S and P. P is an immediate neighbor of T

Ques 87) Out of A, B, C, D and E, each driving a different distance, did A drive more than 23 kms?
(I) A drove more than only C and D. B did not drive the maximum number of kms. C drove 15 kms
(II) C drove more than only D. B drove more than A and D but not the highest number of kms the one who drove the maximum number of kms drove 11 kms more than C

Ques 88) A five storey building (consisting of a ground floor and four floors on top of it such that the ground
Floor is numbered 1 the floor above it, number 2 and so on till the topmost floor is numbered 5) houses

Different people viz C, D, E, F and G. Who lives on floor no 3?
(I) G lives on an even numbered floor. Only one person lives between G and C. F lives on the topmost floor.
(II) E lives on the lowermost floor. Only two people live between E and G. Only one person lives between F and D.

Ques 89) Among the six friends P, Q, R, S, T and U, sitting around a circular table facing the centre, who sits to immediate right of T?
(I) Q sits third to left of T. P sits second to right of T. S is an immediate neighbor of R.

(II) T sits second to right of R. Only one person sits between T and P. U is not an immediate neighbor of R.

**Ques 90**  Deepika tells Shraddha “Your mother’s father’s own son is the husband of my sister.”

How is Deepika related to Shraddha?
1) Sister-in-law  2) Cousin  3) Aunt  
4) Data inadequate  5) None of these

**Ques 91**  D is A’s son. C is the mother of P and wife of D. How is A related to C?
1) Father  2) Uncle  3) Father-in-law  
4) Data inadequate  5) None of these

**Ques 92**  Pointing to the lady in the photograph, Mrinalini said, “Her son’s father is the only son-in-law of my mother”. How is Mrinalini related to the lady?
1) Sister  2) Mother  3) Cousin  
4) Aunt  5) None of these

**Ques 93**  A is brother of R. C is mother of B. M is sister of C. How is M related to B?
1) Nephew  2) Niece  3) Aunt  
4) Cannot be determined  5) None of these

**Ques 94**  R is the daughter of Q. M is the sister of B who is the son of Q. How M is related to R?
1) Cousin  2) Niece  3) Sister  
4) Aunt  5) None of these

**Direction (95-100)** Study the following information carefully and answer the questions given below:-

Arvind, Nayan, Mayank, Rohit, Jai, Varun, Sumit and David are eight friends sitting around a circular table. Two of them are not facing the centre. All of them like different types of Automobile brands viz. Mahindra, Porsche, Hyundai, TVS, Fiat, Rolls Royce, Maruti and Opel, but not necessarily in the same order. Rohit and Mayank are sitting third and second to the left of Arvind respectively. Rohit and Sumit are neighbours of Nayan, who likes Fiat and facing outside. Sumit is sitting third to the right of Arvind who is facing outside and likes Mahindra. David is third to the right of Jai and likes Maruti. Arvind and Davind are not the neighbour of that person who likes Rolls Royce. Varun does not like Hyundai and TVS. The person who likes Opel is sitting opposite of Jai, who is not a immediate neighbour of TVS. An immediate neighbour of Summit likes Rolls Royce.

**Ques 95**  The person who is sitting second to the right of Arvind likes which of the following automobile brand?
1) Mahindra  2) Rolls Royce  3) Porsche  
4) Opel  5) Other than given options

Ques 96) Who among the following likes TVS?
   a) Nayan       b) Mayank       c) Rohit
   d) David       e) Other than given options

Ques 97) What is the position of Varun with respect to Arvind?
   1) Immediate left    2) Second to the right
   3) Immediate right   4) Cannot be determined
   5) Other than given options

Ques 98) If Sumit is immediate right of Nayan then in the same way who among the following sits third to the right of Nayan?
   a) Mayank       b) Jai         c) David
   d) Varun       e) Other than given options

Ques 99) How many person sit between the person who likes Mahindra and the one who likes Hyundai (count in clockwise direction starting from Hyundai)?
   1) Two    2) One    3) None
   4) Three   5) Four

Ques 100) Which of the following statements is true?
   1) Mayank is the neighbour of Rohit and Nayan
   2) Arvind likes Hyundai and faces outside the centre
   3) Sumit likes Mahindra and does not face inside the centre.
   4) All are true
   5) None is true

Answer:

1) d.) 2401
Solution:
1 x 7 = 7
7 x 7 = 49
49 x 7 = 343
343 x 7 = 2401

2) d) 248
Solution:
13 + 12^2 + 3, 20 + 4^2 + 3, 39 + 6^2 + 3, 78 + 8^2 + 3, 145 + 10^2 + 3

3) a) 725
Solution:
difference x 2

4) e) none
Solution:
+97, +197 + 297, +397, +497
991 + 497 = 1488
5) c) 287

Solution:
+ 7x1, +7x3, +7x5, +7x7, +7x9

6) d

=> (816/35)x25 = 23x25 = 575

Nearest value in options is 580

7) d

=> 25/100 * 1320 + 64/100 * 4000

=> 330 + 2560 = 2890

8) d

=> 97 - 27 = 70

Nearest value in options is 69

9) a

=> 41 + 16 = 57

10) c

=> (804)^2 = 646414

Nearest value in options is 646400

11) b

\[ x^2 - 6x = 7 \]

\[ x(x-7)+(x-7)=0 \]

\[ \rightarrow x=7,-1 \]

\[ 2y^2 + 13y + 15 = 0 \]

\[ 2y(y+5)+3(y+5)=0 \]

\[ \rightarrow y=-5, -3/2 \]

If \( x=7, y=-5 \)

\[ x > y \]

\[ x > y \]

\[ \rightarrow \text{if} = -1 \]

\[ x > y \]

\[ x > y \]

i.e \( x > y \)

12) a

\[ 3x^2 - 7x + 2 = 0 \]

\[ 3x(x-2)+(x-2)=0 \]

\[ \rightarrow x=2, -1/3 \]

\[ 2y^2 - 11y + 15 = 0 \]

\[ 2y(y-3)-5(y-3)=0 \]

\[ \rightarrow y=3, 5/2 \]

If \( x=2 \)

\[ x < y, x < y \]

\[ \text{if} x=-1/3 \]

\[ x < y, x < y \]

i.e \( x < y \)
13) d

$10x^2 - 7x + 1 = 0$
$5x (2x-1)-(2x-1)=0$
→$x=1/2, 1/5$

$35y^2 - 12y + 1 = 0$
$7y (5y-1)-(5y-1)=0$
→$y=1/7, 1/5$

If $x=1/5$
$x>y$

If $x=1/2$
$x>y$

i.e $x ≥ y$

14) a

$4x^2 = 25$
→$x=5/2, -5/2$

$2y^2 - 13y + 21 = 0$
$2y(y-3)-7(y-3)=0$
→$y=3,7/2$

If $x=5/2$
$x<y$

if $x=-5/2$
Both cases $x<y$

i.e $x<y$

15) c

$3x^2 + 7x = 6$
$3(x+3)-2(x+3)=0$
→$x=2/3,-3$

$10y^2 - 7y + 1 = 0$
$5y(2y-1)-(2y-1)=0$
→$y=1/2, 1/5$

If $x=2/3$
$x>y$
$x>y$

if $x=-3$
$x<y$

$x<y$

16) a

Chemistry = 18 x 23 = 414
After increasing 26 students = 414+26=440
Physics = 17 x 18 = 306
After decreasing 26 students = 306-26=280
percentage = 280 x 100/440= 63.63≈ 64%

17) c

English = (27 x 18)-20 =486-20 =466
Physics = 17 x 18 = 306
Hindi = 8 x 18 =414
Chemistry = 18 x 23 = 414
Biology = 12 x 18 -35= 216-35= 181

Difference = ( English + Physics) - ( Hindi + Chemistry + Biology )

=>$> difference = 772-739 = 33$
18) a

Students passed in English = 18 x 27 = 486
Students passed in Chemistry = 18 x 23 = 414
after increasing 69 in Chemistry = 414 + 69 = 510
Ratio between English and Chemistry = 486 : 510
= 81 : 85

19) b

Total together = 1800 \left(\frac{13 \times 150}{100 \times 100} + \frac{8 \times 75}{100 \times 100}\right)

=> Total together = 351 + 108 = 459

20) a

Male students passed in Physics = \frac{7}{9} \times 1800 \times \frac{17}{100} = 238

Students passed in Chemistry = 23 \times 1800/100 = 414

Percentage = \frac{238}{414} \times 100 = 57.48

21) d

The year 1993 there was an increase of 10% population of AP and 12% of Bihar
The ratio is = 370000*110/100 : 500000*112/100
= 407 : 560

22) d

Total no of woman in AP = 370000 \times \frac{6}{10} = 222000
Total no of woman in HP = 280000 \times \frac{4}{7} = 160000
Required percentage = \left(\frac{222000}{160000}\right) \times 100 = 126

23) b

The total no of literate under graduates population in Assam = 300000 \times \left(\frac{7}{90}\times\frac{30}{100}\right)
= 70000

24) a

if 70% of the females are literate and 75% of the males are literate
female illiterate Haryana = (450000 \times \frac{4}{9}) \times \left(\frac{30}{100}\right)
= 60000
male illiterate Haryana = (450000 \times \frac{5}{9}) \times \left(\frac{25}{100}\right)
= 62500
Total no of illiterate population in Haryana = 122500

25) c

the ratio of literates in Assam to the literates in Bihar
= 300000 \times \frac{7}{9} : 500000 \times \frac{1}{5}
= 21 : 45
= 7 : 15

26) a

90 - 60 = 50
30 \times \left(\frac{5}{18}\right) = 25/3 m/s
Distance covered in 20 sec = 24 × (25/3) = 200
Length of each train = 200/2 = 100

Distance covered in 20 sec = 24 × (25/3) = 200
Length of each train = 200/2 = 100

27) c.
1st Bottle Contains 80% of milk and 20% water
2nd Bottle Contains 70% of milk and 30% water
Milk ratio = 80 : 70 = 8:7

28) d.
Let original price = Rs.100
30% discount = Rs.30
CP = 70
SP = (150/100) × 70 = 105
Percentage = (105 - 100)% = 5%

29) a.
=> 1 – no boy is selected
=> 1 - 6c4/11c4 = 21/22

30) b
1/4 + 1/5 - 1/20
=> 5 + 4 - 1/20
=> 8/20
20/8 => 2(1/2) hrs

31) e.
10 + 15 + 10 = 35%
100 - 35 = 65% = 26,000
65% ------ 26,000
100% ------ ?
Salary = 40,000

32) c
A : B = 2:3
=> 15,000: B = 2:3
=> B = 22,500

33) c
5 units ----- 70

34) a
Width = 40 × 100/100 - 40
=> 4000/60 = 66.66%

35) 4;
(P+Q)' one day's work = $\frac{1}{24}$
P's one day's work = $\frac{1}{32}$

\[ \therefore Q's \ one \ day \ work = \frac{1}{24} - \frac{1}{32} = \frac{4-3}{96} = \frac{1}{96} \]

\[ \therefore Work \ done \ by \ (P+Q) \ in \ 8 \ days = \frac{8}{24} = \frac{1}{3} \]

Remaining work = 1 - $\frac{1}{3} = \frac{2}{3}$

Time taken by Q to complete the remaining work = $\frac{2}{3} \times 96 = 64$ days

36) 4
37) 4
38) 1
39) 5
40) 1
41) 3
42) 2
43) 2
44) 1
45) 2
46) c. up
47) d. prospective

48) a. surprising
49) d. recognised
50) b. on
51) d. rigours
52) c. from
53) a. prized
54) c. fiercely
55) b. enrichment
56) (c) Replaced “frequently” with “frequent”
57) (d) Delete “to”
58) (a) Replaced “have” with “having”
59) (d) Replaced “their” with “its”
60) (e) No error
61) (e) No error
62) (a) Replaced “have” with “has”
63) (b) Replaced “linkage” with “linked”
64) (a) Replaced “easy” with “eased”
65) (e) No error

(66-70):

66. C 67 B 68 A 69 B 70 E
71) (Option A)
Conclusions
I. K < H is True
II. L ≥ I is False
Only Conclusion I is True hence answer is Option A.

72) (Option B)
Conclusions
I. O < P is False
II. S > P is True
Only Conclusion II is True hence answer is Option B.

73) (Option E)
Given that, A = B ≤ C
and A > R
On combining the statement we will get: R < A = B ≤ C
Conclusions
I. B > R is True
II. R < C is True
Both the conclusions are True hence answer is Option E

74) (Option D)
Given that, D > E ≤ F
and J < F
On combining the statement we will get: D > E ≤ F > J
Conclusions
I. D > J is False
II. E < J is False
Both Conclusions are False hence answer is Option D

75) (Option E)
Given that, P < Q > T
and R ≥ Q
On combining the statement we will get: P < Q ≤ R and R ≥ Q > T
Conclusions
I. R > P is True
II. T < R is True
Both Conclusions are True hence answer is Option E

76) D
77) C
78) E
79) A
80) B
81) A
82) C
83) A
84) A
85)
From statement (I)
Life on other planets’ = 9648
Planets on other side’ = 4596 =è Planets on other = 964, life = 8
Statement (I) sufficient to answer to the question
From statement (II)
Documentary on actor’s life’ = 2981
Living life on edge’ = 9837
= life on = 98
life = either 9 or 8
Statement (II) is not sufficient to answer to the question

**86)**

From statement (I)
--Q--- ----- ---T-- ----- --R---
S position either immediately left or right (not conform)
So statement (I) not true
From statement (II)
Several possibilities let Q take right side of the line
----- ---T--- ------ ---S--- ---Q---
P position not conform .statement (II) not true
Form (I)&(II)
--Q--- ----- ---T--- ------ --R---
S &P positions either T immediately left or right (not conform).
Form (I)&(II) are used not answer the question.

**88)**

From statement (I)
G position either 2 nd or 4 th
Not answer the question
From statement (II)
5 ----F
4 ----G
3 ----D
2 ----C
1 ----E
Statement (II) are necessary to answer the question

**89)**

The data either in statement I alone or statement II alone are sufficient to answer the question

**90)** C

**91)** D

**92)** E

**93)** C

**94)** C
95) B
96) C
97) C
98) D
99) E
100) E