Quantitative Aptitude

Direction (1-5) : What value should come in place of question-mark (?) in the following number series?

1. 78, 294, 419, 483, ?
1. 518
2. 505
3. 515
4. 510
5. 516

2. 16, 26, 6, 46, -34, ?
1. 126
2. 116
3. 124
4. 118
5. 125

3. 174, 232, 298, 372, ?
1. 544
2. 464
3. 454
4. 474
5. 445

4. 17, 35, 109, 445, ?

1. 2214
2. 2231
3. 2411
4. 2421
5. 2241

5. 1498, 1473, 1437, 1388, ?
1. 1342
2. 1324
3. 1314
4. 1332
5. 1334

Direction(Questions 6 to 20):- What value should come in place of the question mark (?) in the following questions ?

6. $99 \times 21 - 3\sqrt{?} = 1968$

 a) 1367631

 b) 111

 c) 366731

 d) 1367

 e) None of these

7. $572 + 38 \times 0.50 - 16 = ?$

 a) 289

 b) 305

c) 448

d) 565

e) 575

8. 6269 + 0.75 × 444 + 0.8 × 185 = ? × 15

a) 448

b) 450

c) 452

d) 454

e) 455

9. (78.95) ² - (43.35) ² = ?

a) 4353.88

b) 4305

c) 4235.78

d) 4148

e) 4100

10. $\frac{1}{8}$ of $\frac{2}{3}$ of $\frac{3}{5}$ of 1715 = ?

a) 80

b) 85

c) 90

d) 95

e) 75

11. 1190 ÷ $\sqrt{7225}$ ×? = 3094

a) 221

b) 121

c) 214

d) 241

e) None of these

12. $(\sqrt{5} - 1)^2 = ? -2\sqrt{5}$

a) 6

(b) 6+2√5

(c) 6√5

(d) 6-2√5

(e) None of these

13.   A man has Rs. 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has ?

a) 45

b) 60

c) 75

d) 90

e) None of these

14.   There are two examinations rooms A and B. If 10 students are sent from A to B, then the number of students in each room is the same. If

20 candidates are sent from B to A, then the number of students in A is double the number of students in B. The number of students in room A is:

a) 20

b) 80

c) 100

d) 200

e) None of these

15. Find the value of

$$\sqrt{4+\sqrt{44+\sqrt{10000}}}$$

(a) 44
(b) 12
(c) 4
(d) 2
(e) None of these

16. The value of

$$\sqrt{-\sqrt{3}+\sqrt{3+8\sqrt{7+4\sqrt{3}}}}$$

(a) 1
(b) 2
(c) 3
(d) 8
(e)   None of these

17.

$$\sqrt{2\sqrt{2\sqrt{2\sqrt{2\sqrt{2}}}}}$$

is equal to.

(a) 0
(b) √2
(c) 2
(d) 2 31/32
(e)   None of these

18.

The expression

$$\sqrt{\frac{0.85 \times (0.105 + 0.024 - 0.008)}{0.22 \times 0.25 \times 17}}$$

simplifies to :-
(a) √11
(b) √11
(c) 11
(d) √0.11

19.

If $\frac{x}{2y} = \frac{3}{2}$ then the value of $\frac{2x+y}{x-2y}$ equals

(a) 1/7
(b) 7
(c) 7.1
(d) 6.8

e)   None of these

20.

If $a * b = a^2 + ab + b^2$ then $2 * 3$ equ
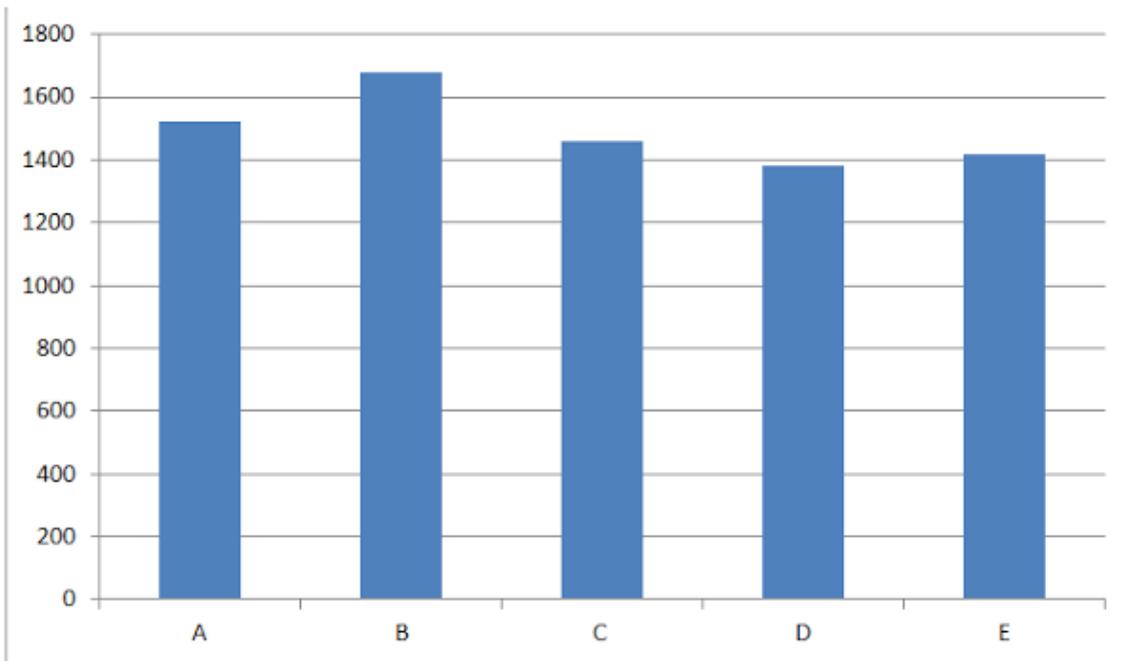
(a) 29
(b) 19
(c) 9
(d) 6

Directions (21-25): Study the following line graph and table carefully and answer the questions given below.

Numbers of employees working in five different banks A, B, C, D and E.

Banks

Ratio of males to females employees

Bank	M : F
A	13:6

B	4:3
C	9:11
D	10:13
E	13:7

21. What is the total number of male employees taking all the banks together?

1. Other than the given options

2. 4060

3. 4120

4. 4180

5. 4280

22. What is the average number of female employees taking all the banks together?

1. 656

2. 686

3. 668

4. Other than the given options

5. 646

23. Approximately by what percent is the number of male employees working in banks A and C together more than that of the total number of female employees working in bank B and D?

1. Other than the given options

2. 9%

3. 15%

4. 11%

5. 13%

24. What is the ratio of female employees working in bank D to that in E?

1. 7:4

2. Other than the given options

3. 8:5

4. 7:3

5. 9:5

25. Approximately by what per cent is the number of total employees o bank C more than that of bank D?

1. 8%

2. 6%

3. Other than the given options

4. 4%

5. 10%

26. 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

2. 60

3. 65

4. 64

5. 66

27. A passenger sitting in a train of a certain length which is running at a speed of 60 km/hr passing through two bridges. the notices that be crossed the first bridge and second bridge in time intervals which are in the ratio of 7:4 respectively. If the length of the first bridge is 350m, then the length of the second bridge is

1. 210m

2. 220m

3. 200 m

4. 190m

5. 180m

28. The average salary per head of all workers of an institution is Rs. 80. The average salary per head of 16 officers is Rs. 600. The average salary per head of 16 officers is Rs. 600. The average

salary per head of the rest is Rs. 67. Then, the total number of workers in the institution is

1. 656

2. 665

3. 655

4. 676

5. 666

29. Anand finds that due to a fall in the rate of interest from 10% to 5%, his yearly income diminishes by Rs.500. His capital is ?

1. 10000

2. 12000

3. 15000

4. 18000

5. 25000

30. In a town, each of the 60% of families has a laptop, each of the 30% of families has a computer and each of the 15% of families has both a laptop and a computer. In all, there are 10800 families in the town. How many families in the town do not have a laptop or a computer?

1. 2600

2. 2850

3. 2900

4. 2650

5. 2700

31. An article of cost prince Rs. 16000 is marked at Rs. 19200. After allowing a discount of x% a profit of 15% is made. The value of x is.

1. 3.17%

2. 4.17%

3. 5.17%

4. 2.75%
5. 6.25%

32. 464.83 + 40.14 / 7.84 + 6.26 / 0.91 = ? . Find approximate value ?

1. 375

2. 475

3. 473

4. 450

5. Other than the given options

33. P,Q and R started a business by investing Rs. 40,500, Rs. 45000 and Rs. 50000 respectively. After 6 months R withdrew Rs. 10,000 while P invested Rs. 4500 more. In annual profit of Rs. 53,100 the share of R will exceed that of P by

1. Rs. 1000

2. Rs. 850

3. Rs. 950

4. Rs. 800

5. Rs. 900

34. Three taps X,Y and Z can fill a tank in 12 hrs, 15 hrs and 20 hrs respectively. If X is open all the time and Y and Z are open for one hour each alternately, starting with Y, then the tank will be full in how many hours?

1. 10 hr

2. 6 hr

3. 8 hr

4. 7 hr

5. 9 hr

35. If the simple interest on a certain sum of money for 9 months at 6% is Rs. 406 less than the simple interest on the same sum for 16 months at 7% pa, then find the sum.

1. Rs. 8600

2. Rs. 8400

3. Rs. 8800

4. Rs. 8900

5. Rs. 9000

English

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.

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

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

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

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

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

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

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

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

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

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 ofdown 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)**.

46.

a. in
b. to
c. up
d. out

47.

a. conjuncture
b. specific
c. probable
d. prospective

48.

a. surprising
b. confusing
c. believable
d. ignoring

49.

a. admitted
b. accepted
c. famed
d. recognised

50.

a. in
b. at
c. on
d. out

51.

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

52.

a. in
b. by
c. from
d. of

53.

a. prized
b. demanding
c. authorised
d. gained

54.

a. extremely
b. vicious
c. fiercely
d. flawlessly

55.

a. amendment
b. enrichment
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.)

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)

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

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

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)

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)

61. Helen Keller has proved (a)/ how language could (b)/ liberate the (c)/ blind and the deaf. (d)/ No error (e)

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)

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)

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)

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 Ability

Directions (66-70): Following questions are based on given information below and you've to tell which conclusion(s) follow:

66. Statements: P< A ≤ C ≥ K; C ≤ O < L; R ≤ N ≤ C

Conclusions: I . A = K **II**. R < L

a) Only Conclusion I is true.

b) Only Conclusion II is true.

c) Either Conclusion I or II is true

d) Neither conclusion I nor II is true.

e) Both conclusions I and II are true.

67. Statements: S ≤ T ≤ K ≤ E; N ≥ E ≤ P

Conclusions: I. S ≤ N **II**. S ≤ P

a) Only Conclusion I is true.

b) Only Conclusion II is true.

c) Either Conclusion I or II is true.

d) Neither conclusion I nor II is true.

e) Both conclusions I and II are true.

68. Statements: S > O ≥ U ≥ P; O ≤ T < R; T ≥ E > A

Conclusions: I. R < A **II**. U = A

a) Only Conclusion I is true.

b) Only Conclusion II is true.

c) Either Conclusion I or II is true.

d) Neither conclusion I nor II is true.

e) Both conclusions I and II are true.

69. Statements: P< A ≤ C ≥ K; C ≤ O < L; R ≤ N ≤ C

Conclusions: I. O ≥ R **II.** P ≤ O

a) Only Conclusion I is true.

b) Only Conclusion II is true.

c) Either Conclusion I or II is true.

d) Neither conclusion I nor II is true.

e) Both conclusions I and II are true.

70. Statements: S > O ≥ U ≥ P; O ≤ T < R; T ≥ E > A

Conclusions: I. T > P **II.** T = P

a) Only Conclusion I is true.

b) Only Conclusion II is true.

c) Either Conclusion I or II is true.

d) Neither conclusion I nor II is true.

e) Both conclusions I and II are true.

Directions (Q. No. 71-75): Study the following series of alpha-numeric-symbol combination and answer the questions that follow:

S K 6 £ Q 2 R * C F 8 E $ G 2 # 4 9 L N 3 U V 5 Y a B 7 W 9

71. How many symbols are there in the above arrangement each of which is immediately preceded by but not immediately followed by a letter of English alphabet?

(1) Nil
(2) One

(3) Two
(4) Three
(5) None of these

72. What should come in place of question mark in the following series?

S 9 K 6 W £ Q 7 2 ? C a F

(1) R Y *
(2) *Y C
(3) 2 B R
(4) R B *
(5) None of these

73. If the positions of # and $ are interchanged, so also the positions of £ and ê,Q and K and F and V are interchanged, which of the following will be the ninth element to the left of eighteenth element from the left?

(1) C
(2) V
(3) 8
(4) *
(5) None of these

74. Four of the following five are alike in respect of their positions in the above series. Which is the one that does not belong to that group?

(1) Q * 8
(2) £ R F
(3) 6 2 C
(4) 2 * 8
(5) R F $

75. S K £ is related to 9 W B in the same way as Q 2 * is related to

(1) a V U
(2) a Y 5
(3) 7 B Y
(4) B Y V
(5) a Y V

Directions (76-81): Study the following information carefully and answer the questions given below:

There are eight persons viz, A, B, C, D, E, F, H and J are sitting around a circle. Five of them are facing towards the centre.
They read different newspapers viz, Hindustan Times (H.T), The Indian Express, The Hindu, The Economic Times, Navbharat Times, Washington Post, The Herald and The Dawn, but not necessarily in the same order. D is facing away from the centre but reads neither "The Hindus 'nor' The Indian Express.' The one who reads The Washington post sits exactly between F and B. C is on the immediate right of H, who is not facing away from the centre. The one who reads The Indian Express is not the neighbour of B. The one who reads The Economic Times is on the immediate right of C. There are three persons between H and B. E sits second to the left of D and he reads The Indian Express. F is an immediate neighbour of both C and the one who reads The Washington Post. The Economics Times is read by either H or B. The one who read 'The Herald' is facing towards the centre. D sits on the immediate right of the one who read Navbharat Times. The one who reads The Dawn sits exactly between J and the one who reads The Hindu. A does not read The Washington Post. The one who is on the immediate right of H read the Hindu and is not facing the centre.

76. Which of the following papers is read by the one who sits on the immediate right of J?

1. The Hindu

2. The Herald

3. The Dawn

4. Navbharat Times

5. The Economic Times

77. Which of the following is matched correctly?

1. A- Hindustan Times

2. H- The Dawn

3. C- The Economic Times

4. B- The Herald

5. E- The Hindu

78. Which of the following groups is facing away from the centre?

1. A, B, D

2. A, C, D

3. E, A, D

4. J, C, D

5. H, D, B

79. If D is related to A and in the same way H is related to C in a certain way, then F is related to

1. J

2. C

3. None

4. A

5. B

80. How many persons sit between the one who reads The Dawn and the one who reads Navbharat Times?

1. Three

2. Two

3. One

4. None

5. Other than the given options

81. Who among the following reads The Dawn?

1. A

2. H

3. F

4. B

5. E

Direction (82-86): Study the following information carefully and answer the questions given below:

Eight person K,C,V,D,M,O,T and L are sitting around a square table, The Persons sitting at the corner are facing the center and the persons sitting in the middle are facing away from the centre. Each one of them like a different subjects away from the centre. Each one of them like a different subjects viz, English, Hindi, Civics, Geography, Physics, Biology, History and Chemistry but not necessary in the name order.

- V is facing outward and sits third to the left of C, who likes Geography.

- K is not facing towards the table and he sits between the persons who like Civics and Hindi.
- sits opposite K and likes English
- C and L are opposite each other. their favorite subjects are geography and Civics respectively.
- T likes Biology and he is second to the left of O.
- The person who likes History is not next to M or O.
- The person who likes Physics sits fifth to the left of D, who likes Hindi.

82. Which of the following pairs sit between L and T when counted in anti-clockwise direction, starting from T?

1. C,O

2. K,D

3. V,C

4. M,O

5. Other than the given options

83. Who likes Physics?

1. O

2. T

3. V

4. D

5. Other than the given options

84. Four of the following five are alike a certain way and so form a group. Which is the one that does not belong to that group?

1. M

2. T

3. L

4. D

5. C

85. Who sits second to the left of the one who likes 'History'?

1. V

2. M

3. One who likes Physics

4. Both 1) and 3)

5. Other than the given options

86. Which of the following does not match correctly?

1. V-Facing towards the centre - Physics

2. T- Facing outward the centre - Biology

3. C- Facing towards the centre - Civics

4. O- Facing outwards the cenntre - History

5. All except 2)

Direction (87-90): Study the following information carefully and answer the questions given below:

Eight friends Seema, Suresh, Mahesh, Sudhir, Karan, Geeta, Raj and Sushil are sitting around a circular table. Three of them are facing outward the centre and five are facing towards the centre.
Each one of them likes a different colour viz, Blue, green, Violet, White, Yellow, Pink, Red and Black.

- Suresh and Raj are facing towards the centre and the person who likes Green is second to the left of Raj.
- Seema and Raj are facing each other and facing the same direction as Suresh.
- Sudhir faces outward and sits opposite Suresh, who likes Black colour.
- Geeta and Seema sit next to each other.
- Geeta who faces outward sits opposite to one who likes Blue colour.
- Yellow is liked by one of the two girls.
- Mahesh sits third to the right of Geeta and likes Violet colour.
- Geeta likes Pink colour
- Sushil sits opposite Mahesh and Sudhir, second to the right of the one who likes Blue colour.
- Raj likes Red colour and Sudhir likes whited.
- Suresh sits between Seema and Mahesh.

87. Who sits fifth to the right of Geeta?

1. Mahesh

2. Karan

3. Raj

4. Suresh

5. Other than the given options

88. Three are alike in a certain way while one is not, find the odd one.

1. Raj-Seema

2. Suresh-Sudhir

3. Karan-Geeta

4. Seema-Mahesh

5. Other than the given options

89.Who among the following likes 'Blue' colour?

1. Geeta

2. Raj

3. Mahesh

4. Sushil

5. Karan

90. How many person sit between the person who likes White colour and the person who likes Black colour?

1. Two

2. Three

3. Four

4. None

5. Other then the given options

Directions (Q.91-5): Study the following information carefully and answer the questions given below:

There are eight persons viz. D, E, R, N, P, T, V and A sitting around a square table. They have a different professions viz. Engineer, Soldier, Teacher, Pilot, Artist, Doctor, Politician and Player but not

necessarily in the same order. Four of them sit on the middle of the four sides while four of them sit on the four corners of the square table. All persons who sit at the four corners are facing the centre except one, while those who sit in the middle of the sides are facing outward the centre except one. T is neither Politician nor a Pilot. E is immediate left to the Player.

N is not facing towards the centre. Soldier and Engineer are the neighbours of Doctor. D is a Teacher but not facing towards the centre. The Politician is the neighbour of both E and Soldier. Doctor is not facing towards the centre. R and A are facing each other but none of them is at middle of the sides. The Player is facing towards the centre but not sitting in the middle of the any side of the table. E sits second to the right of P, who is Soldier. Z is not the neighbour of either E or P and sits second to the right of N.V is between Artist and teacher.

1. Who among the following is a Pilot?
1. T
2. N
3. R
4. D
5. Z

2. Who among the following sits exactly between the Player and Politician?
1. E
2. Teacher
3. P
4. Both 1) and 2)
5. Artist

3. The profession of N is
1. Artist
2. Pilot
3. Doctor
4. Teacher
5. Player

4. How many person (s) sit (s) between V and the Doctor?
1. None
2. Three

3. Two
4. One
5. Other than the given options

5. Four of the following five are alike in a certain way, Find the odd man out?
1. ZT
2. PR
3. VE
4. ZD
5. RE

Directions (96-100): Study the following information carefully and answer the questions given below:

In a certain code language "all players are energetic" is written as "zee dp zn nt" . "are they really energetic" is written as "mb nt re zn", "related to all players" is written as "st zee dp ta" , discipline is related to game", is written as "gt ta no st np" , 'game is really to enjoy is written as 'np re gt ta fr'.

96. Which of the following is the code for 'enjoy'?
1. ta
2. st
3. gt
4. fr
5. no

97. Which of the following does 'dp zn nt' stand for?
1. all are energetic
2. players are energetic
3. they are players
4. all are players
5. Cannot be determined

98. Which of the following is the code for 'discipline'?

1. no
2. st
3. gt
4. re
5. mb

99. If 'the discipline is enjoyed' is written as 'kp no np fr' then what is the code for ' the game to enjoy'?
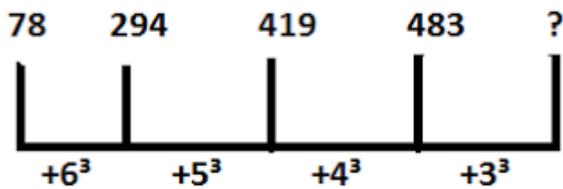1. no fr ta kp
2. kp gt ta fr
3. ta fr no gt
4. mb st gt nt
5. kp gt tec fr

100. Which of the following stand for 'zee'?
1. all
2. player
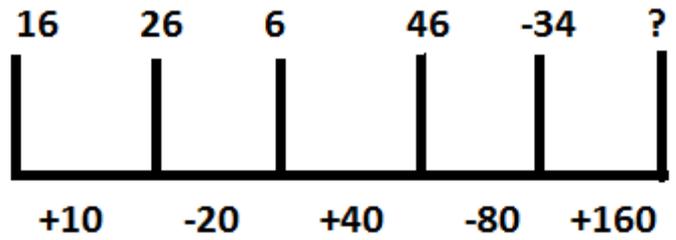3. energetic
4. players
5. Either 1 or 4

Answer:

1. 4;
The series is

78   294   419   483   ?

+6³   +5³   +4³   +3³

∴ ? = 483 + 3³ = 510

2. 1;
The series is

16   26   6   46   -34   ?
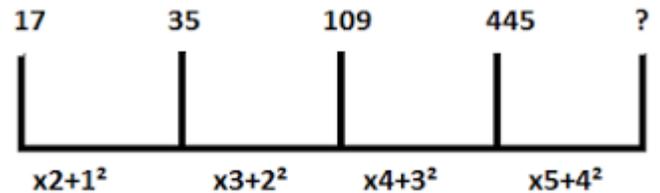
+10   -20   +40   -80   +160

∴ ? = 34 + 160 = 160 = 126

3. 3;
The Series is , $13^2 + 5 = 174$, $15^2 + 7 = 232$, $17^2 + 9 = 298$, $19^2 + 11 = 372$, ...
∴ ? = 21∴ + 13 = 454

4. 5;
The series is
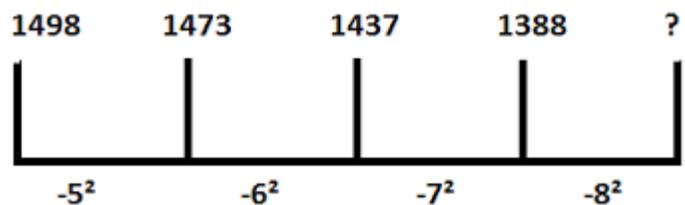
17   35   109   445   ?

x2+1²   x3+2²   x4+3²   x5+4²

∴ ? = 445 x 5 + 16 = 2241

5. 2;
The series is

1498   1473   1437   1388   ?

-5²   -6²   -7²   -8²

∴ ? = 1988 - 64 = 1324

6. 1
$\sqrt[3]{?} = 99 \times 21 - 1968 = 111$
$? = (111)^3 = 1367631$

7. 2
$? = 572 + 38 \times 0.50 - 16$
$= 572 + 19 - 16 = 591 - 16$

= 575

8. 2

$15 \times ? = 6269 + 333 + 148 =$

6750

$? = 6750/15 = 450$

9. 1

$(78.95)^2 - (43.52)^2 = 6233.1025$

$-1879.2225 = 4353.88$

10. 2

$? = \frac{1}{8} \times \frac{2}{3} \times \frac{3}{5} \times 1715 = 85.75$

$= 85$

11. a

$1190 \div \sqrt{7225} \times ? = 3094$

or, $\frac{1190 \times ?}{85} = 3094$

or , $? \frac{3094 \times 85}{1190} = 221$

12. a

$? = (\sqrt{5} - 1)^2 + 2\sqrt{5} + 1 - 2\sqrt{5} + 2\sqrt{5}$

? = 6

13.

Option **D**

Explanation:

Let number of notes of each denomination be x.

Then $x + 5x + 10x = 480$

$\Rightarrow 16x = 480$

$\therefore x = 30$.

Hence, total number of notes = $3x = 90$.

14.

Option **C**

Explanation:

Let the number of students in rooms A and B

be x and y respectively.

Then, $x - 10 = y + 10 \Rightarrow x - y = 20$ .... (i)

and $x + 20 = 2(y - 20) \Rightarrow x - 2y = -60$ .... (ii)

Solving (i) and (ii) we get: $x = 100$, $y = 80$.

$\therefore$ The required answer A = 100.

15.

$$\sqrt{4\sqrt{44\sqrt{10000}}} = \sqrt{4 + \sqrt{44 + 100}} = \sqrt{4 + 12} = \sqrt{16} = 4$$

16. (B)

17.

$$\text{Let } x = \sqrt{2\sqrt{2\sqrt{2\sqrt{2\sqrt{2}}}}}$$

$$x^2 = 2\sqrt{2\sqrt{2\sqrt{2\sqrt{2}}}}$$

$$x^4 = 2^2 \times 2\sqrt{2\sqrt{2\sqrt{2}}}$$

$$x^8 = 2^4 \times 2^2 \times 2\sqrt{2\sqrt{2}}$$

$$x^{16} = 2^8 \times 2^4 \times 2^2 \times 2\sqrt{2}$$

$$x^{32} = 2^{16} \times 2^8 \times 2^4 \times 2^2 \times 2$$

$$x^{32} = 2^{31} = \quad x = 2^{\frac{31}{32}}$$

18. (A)

19.
(B)

$$\frac{x}{2y} = \frac{3}{2} \quad \Rightarrow \quad \frac{x}{y} = 3$$

$$\frac{2x+y}{x-2y} = \frac{2\left(\frac{x}{y}\right)+1}{\left(\frac{x}{y}\right)-2} = \frac{2\times3+1}{3-2} = 7$$

20.
(B)

$$2^{*}3 = (2)^2 + 2\times3 + (3)^2 = 4+6+9 = 19$$

(21-25)

Banks	Male employee	Female employees
A	1040	480
B	960	720

C	657	803
D	600	780
E	923	497

21. 4;
Required answer = 4180

22. 1;
Required average

$= \dfrac{3280}{5}$ = 656

23. 5;
Required percentage more

$= \dfrac{(1040+657)-(720+780)}{720+780} \times 100$

$= \dfrac{1697-1500}{1500} \times 100 = 13\%$

24. 2;
Required ratio
= 780:497

25. 2;
Required percentage

$= \dfrac{1460-1380}{1380} \times 100 = 6\%$

26. 4;

(P+Q)' one day's work $= \dfrac{1}{24}$

P's one day's work $= \dfrac{1}{32}$

$\therefore$ Q's one day work $= \dfrac{1}{24} - \dfrac{1}{32} = \dfrac{4-3}{96} = \dfrac{1}{96} -$

$\therefore$ Work done by (P+Q) in 8 days $= \dfrac{8}{24} = \dfrac{1}{3}$

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

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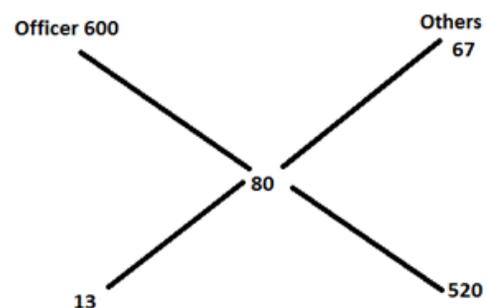
$= \dfrac{2}{3} \times 96 = 64$ days

27. 3;
The length of the train in which passenger is sitting is not considered since we are concerned with the passenger instead of train.
$\therefore$ Let the length of the second bridge be x m

$\therefore \dfrac{350}{x} = \dfrac{7}{4} \Rightarrow x = 200m$

28. 1;

Officer 600   Others
                              67

                  80

13   520

$\therefore$ Ratio $= 1:40$
So, total workers $= \dfrac{40+1}{1} \times 16 = 656$

29. 1;
Difference = 10-5 = 5%
5% -------- 500

100% ------ 10000

Capital = 10000

30. 5;

The percentage of families having either a laptop or a computer or both

= 60+30 -15 = 75%

Families having neither a laptop nor a computer

= 100 – 75 = 25%

So, required family = 25/100 x 10800 = 2700

31. 2;

2; SP for a profit of 15% = $\frac{16000 \times 15}{100}$ = Rs. 18400

∴ Discount = 19200-18400 = Rs. 800

Discount % = $\frac{800 \times 100}{19200}$ = 4.17%

32. 3;

==> 467+40/8+6/1

= 473

33. 5;

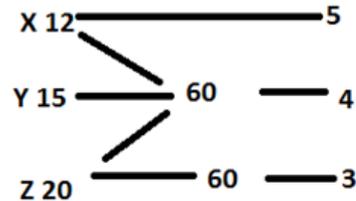|	P	Q	R
First 6 months	40500 x 6	45000 x 6	50000 x 6
Last 6 months	45000 x 6	45000 x 6	40000 x 6
	513000	540000	540000

Ratio of their profits = 513 : 540 : 540

= 57:60:60 = 19:20:20

Share of R will exceed that of P by

= $\frac{20-19}{19+20+20}$ x 53100 = Rs. 900

34. 4;

X 12 ———————— 5

Y 15 ——> 60 — 4

Z 20 —— 60 — 3

Work is progressing (X+Y) + (X+Z) + (X+Y) + (X+Z)+ ....

Work done in two hours = (5+4) + (5+3) = 17

∴ Work done in 6 hrs = 17x 6/2 = 51 units

∴ Work done in 7 hours = 51+9=60 units

So, work will be completed in 7 hours.

35. 2;

Let the principal be Rs. 100

Case I: SI = $\frac{100 \times 6 \times 9}{100 \times 12}$ = Rs. $\frac{9}{2}$

Case II: SI = $\frac{100 \times 76 \times 16}{100 \times 12}$ = Rs. $\frac{28}{3}$

Difference = Rs. $\frac{28}{3}$ - $\frac{9}{2}$ = $\frac{56-27}{6}$ = Rs. $\frac{29}{6}$

If the different is Rs. $\frac{29}{6}$, the principal is Rs. 100

If the difference is Rs. 406 then principal

= 100 x $\frac{6}{29}$ x 406 = Rs. 8400

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. b) Only Conclusion II is true.

67. e) Both conclusions I and II are true.

68. d) Neither conclusion I nor II is true.

69. a) Only Conclusion I is true.

70. c) Either Conclusion I or II is true.

71. 1

72. 4

73. 1

74. 4

75. 5

(76-81)
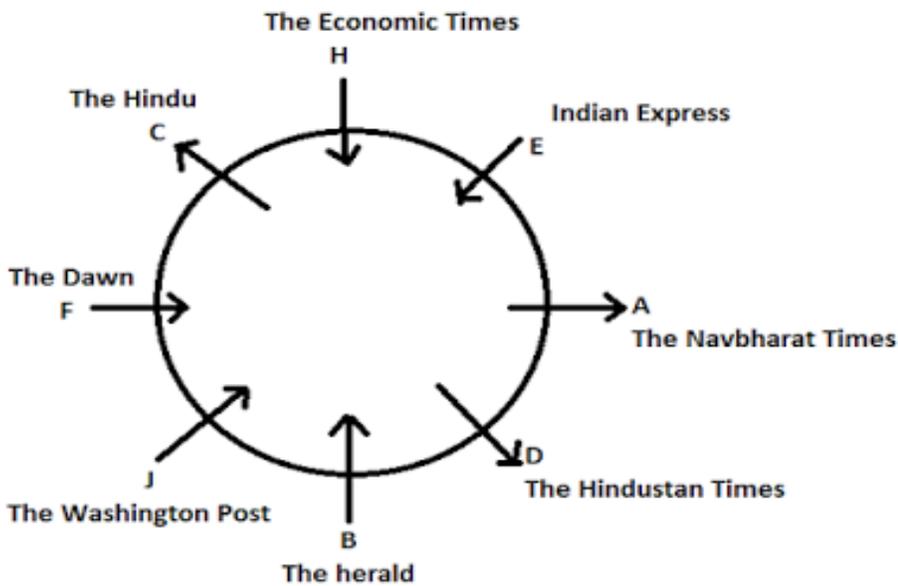
76. The Herald

77. B- The Herald

78. A, C, D

79. None

80. Three

81. F

(82-86)
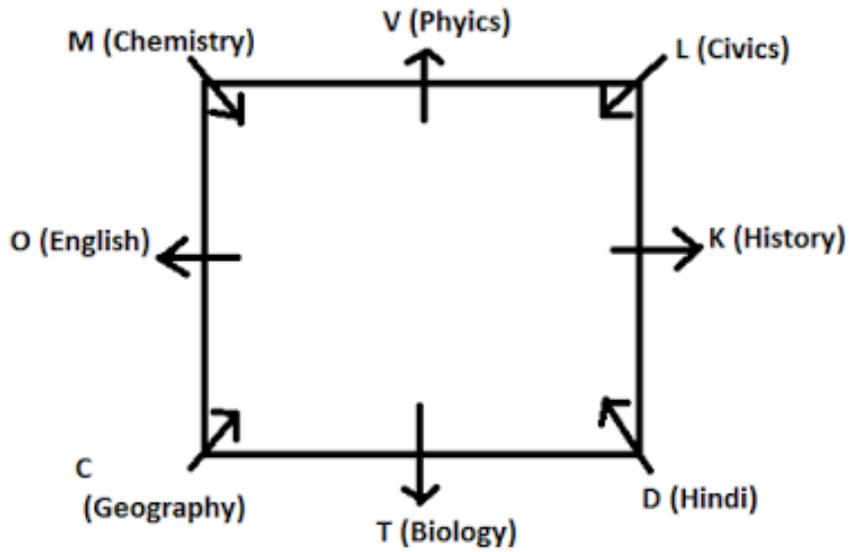
82. 2
83. 3
84. 2
85. 4
86. 5

(87-90):
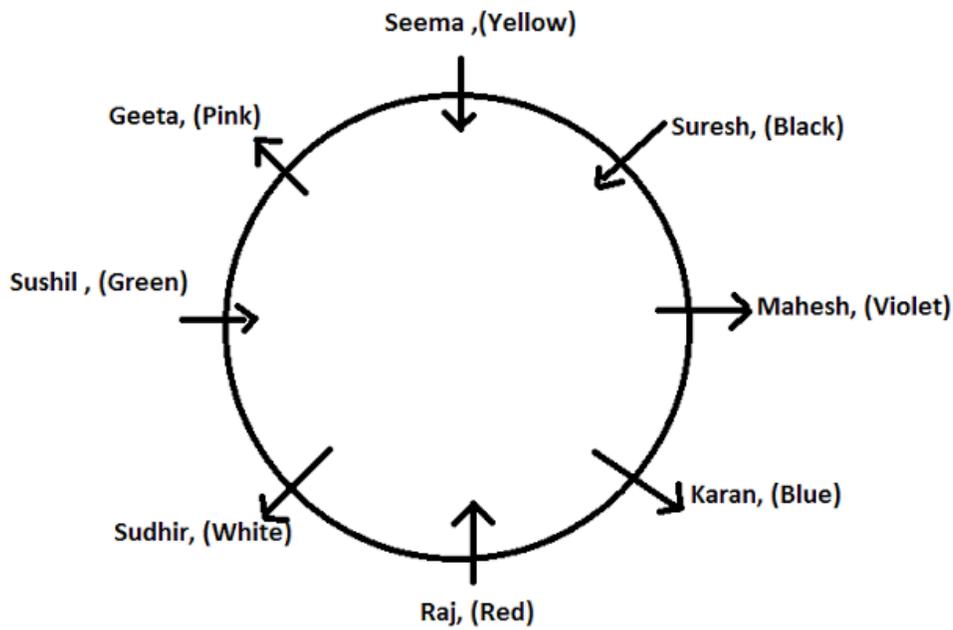
87. 3
88. 4
89. 5
90. 2

(91-95)
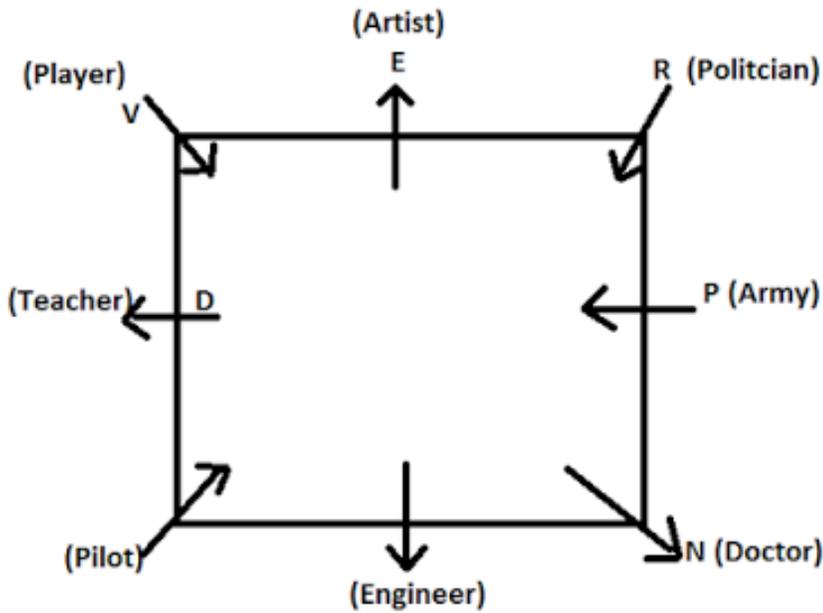
91. 5

92. 4

93. 3

94. 2

95. 2

(96-100)

all players are energetic →zee dp zn nt .... (i)
are they really energetic → mb nt re zn .... (ii)
related to all players → st zee dp ta......................(iii)
discipline is related to game → gt ta no st np ......(iv)
game is really to enjoy → np re gt ta fr ....(v)
From (iii) and (v), to → ta ....(vi)
From (iii), (iv) and (vi), related → st ....(vii)
From (ii) and (v), really → re .... (viii)
From (i), (ii) and (viii), they → mb .... (ix)

From (i), (ii), (viii) and (ix),
are energetic → nt or zn/zn or nt ....(x)
From (i) and (iii), all players → zee or dp/dp or zee ..(xi)
From (iv), (v) and (vi), is game → gt or np/np or gt...
(xii)
From (v), (vi), (viii) and (xii), enjoy → fr ....(xiii)
From (iv), (vi), (vii) and (xii), discipline → no ....(xiv)

96. fr

97. Cannot be determined

98. no

99. kp gt ta fr

100. Either 1 or 4