

## **SECTION 2: QUANTITATIVE APTITUDE (50 QUESTIONS)**

51. Find the least number with which you multiply 882 so that the product may be a perfect square.

- A) 2
- B) 7
- C) 3
- D) 5

52. An army general trying to draw his 16,160 men in rows so that there are as many men in each row as the number of rows, found that he had 31 men left over. Find the number of men in the front row.

- A) 100
- B) 127
- C) 260
- D) 543



53.

Find the value of  $\frac{4 - \sqrt{0.04}}{4 + \sqrt{0.04}}$

- A) 0.2
- B) 0.9
- C) 2
- D) 2.1

54. Find the number whose square is equal to the difference between the squares of 75.12 and 60.12

- A) 45
- B) 45.04
- C) 46.2
- D) 48.6

55. A, B and C earn Rs.120 per day while A and C earn Rs.80 per day and B and C earn Rs.66 per day. Find C's earning.

- A) 26
- B) 45
- C) 66
- D) 87

56. A contractor undertook to do a piece of work in 125 days and employs 175 men to carry out the job, but after 40 days, he finds that only a quarter of the work had been carried out. How many more men should be employed to finish the work in time?

- A) 67
- B) 70
- C) 72
- D) 84

57. A cistern is normally filled in 6 hours, but takes 2 hours more to fill it because of a leak at its bottom. If the cistern is full, how long will it take for the leak to empty the cistern?

- A) 7
- B) 16
- C) 20
- D) 24





58. Two coal loading trucks handle 9000 tonnes of coal at an efficiency of 90% working 12 hours per day for 8 days. How many hours a day, 3 coal loading trucks should work at an efficiency of 80% so as to load 12000 tonnes of coal in 6 days.

- A) 16
- B) 19
- C) 20
- D) 24

59. How many seconds will it take for a train 120 meters long moving at the rate of 15 m/sec to overtake another train 150 m long running from the opposite side at the rate of 90 km/hr?

- A) 5
- B) 6
- C) 6.75
- D) 7.25

60.  $2 + 2^2 + 2^3 + \dots + 2^8 = ?$

- A) 52
- B) 64
- C) 254
- D) 510

61. The traffic lights at three different road crossings change after every 48 sec., 72 sec and 108 sec. respectively. If they all change simultaneously at 8:20:00 hours, then at what time will they again change simultaneously?

- A) 8:27:12 hrs
- B) 8: 28 hrs
- C) 8: 25:18 hrs
- D) 8:30:15 hrs

62.  $\frac{4}{15}$  of  $\frac{5}{7}$  of a number is greater than  $\frac{4}{9}$  of  $\frac{2}{5}$  of the same number by 8. What is half of that number?

- A) 215
- B) 315
- C) 415
- D) 515



63. If  $2x+3y=34$  and  $((x+y)/y)=13/8$ , then find the value of  $5y+7x$ .

- A) 70
- B) 82
- C) 94
- D) 75

64. In a race A has a start of 100mtrs and sets off 6 min before B, at the rate of 10 km/hr. How soon will B overtake A, if his speed of running is 12 km/hr.

- A) 30
- B) 33
- C) 45
- D) 60

65. A mixture of 40 litres of milk contains 20% of water. How much water must be added to make the water 25% in the new mixture?

- A) 2
- B)  $2\frac{2}{3}$
- C)  $3\frac{1}{3}$
- D)  $3\frac{4}{5}$

66. When an amount was distributed among 14 boys, each of them got Rs.80 more than the amount received by each boy when the same amount is distributed equally among 18 boys. What was the amount?

- A) 2500
- B) 4500
- C) 5000
- D) 5040

67. A and B are friends and each has some money. If A gives Rs. 30 to B, then B will have twice the money left with A. But, if B gives Rs. 10 to A, then A will have thrice as much as is left with B. How much money does each have?

- A) A- 62, B-34
- B) A- 60, B-30
- C) A- 43, B-50
- D) A- 62, B-52





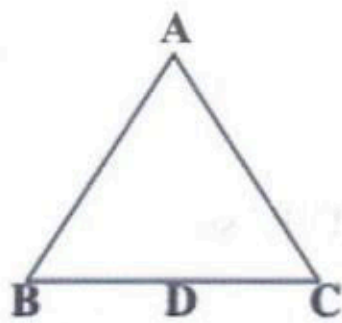
68. Five years ago, the average of Raja and Rani's ages was 20 yrs. Now the average age of Raja, Rani and Rama is 30 yrs. What will be Rama's age 10 yrs hence?

- A) 30
- B) 40
- C) 50
- D) 55

69. The length of a rectangle is twice its breadth. If its length is decreased by 5 cm and breadth is increased by 5 cm, the area of the rectangle is increased by 25 sq. cm. Find the length of the rectangle.

- A) 13
- B) 15
- C) 20
- D) 25

70. The altitude drawn to the base of an isosceles triangle is 8 cm and the perimeter is 32 cm. Find the area of the triangle.



- A) 60
- B) 64
- C) 72
- D) 76

71. The area of a circular field is 13.86 hectares. Find the cost of fencing it at the rate of Rs. 4.40 per metre.

- A) 4509
- B) 5808
- C) 6132
- D) 6344

72. If the radius of a circle is decreased by 50%, find the percentage decrease in its area.

- A) 50%
- B) 65%
- C) 75%
- D) 80%



73. What was the day of the week on 16th August, 1947?

- A) Monday
- B) Tuesday
- C) Thursday
- D) Saturday

74. A clock is set right at 5 a.m. The clock loses 16 minutes in 24 hours. What will be the true time when the clock indicates 10 p.m. on 4th day?

- A) 11 p. m.
- B) 12 a.m.
- C) 10 p.m.
- D) 5 a. m.

75. Find the cost of 96 shares of Rs. 10 each at  $(\frac{3}{4})$  discount, brokerage being  $(\frac{1}{4})$  per share.

- A) 896
- B) 911
- C) 912
- D) 100

76. How many words can be formed by using all letters of the word 'DAUGHTER' so that the vowels always come together?

- A) 4320
- B) 4367
- C) 5647
- D) 6234

77. In how many ways, a committee of 5 members can be selected from 6 men and 5 ladies, consisting of 3 men and 2 ladies?

- A) 154
- B) 178
- C) 200
- D) 234

78. In a throw of a coin, find the probability of getting a head.

- A)  $\frac{1}{4}$
- B)  $\frac{1}{2}$
- C)  $\frac{1}{5}$
- D)  $\frac{1}{8}$



79. A ladder leaning against a wall makes an angle of 60 degree with the ground. If the length of the ladder is 19 m, find the distance of the foot of the ladder from the wall.

- A) 9 m
- B) 9.2 m
- C) 9.5 m
- D) 9.8 m

80 A man standing on the bank of a river observes that the angle subtended by a tree on the opposite bank is 60degrees. When he retires 36 m from the bank, he finds the angle to be 30 degrees. Find the breadth of the river.

- A) 18m
- B) 21 m
- C) 33 m
- D) 35 m

81. A sum of Rs. 800 amounts to Rs. 920 in 3 years at simple interest. If the interest rate is increased by 3%, it would amount to how much?

- A) 720
- B) 876
- C) 992
- D) 1012

82 The simple interest on a certain sum of money for 2 1/2 years at 12% pa is Rs. 40 less than the simple interest on the same sum for 3 1/2 years at 10% pa. Find the sum.

- A) 800
- B) 900
- C) 600
- D) 500

(Q83-86) Study the following table carefully and answer the questions given below:

Classification of 100 students based on the marks obtained by them in physics and chemistry in an Examination

Marks out Of 50	40 and above	30 and Above	20 and above	10 and above	0 and above
physics	9	32	80	92	100
chemistry	4	21	66	81	100
(aggregate Average)	7	27	73	87	100



83. The number of students scoring less than 40% marks in aggregate is :

- (A) 13
- (B) 19
- (C) 20
- (D) 27

84. If at least 60% marks in Physics are required for pursuing higher studies in Physics, how many students will be eligible to pursue higher studies in Physics?

- (A) 27
- (B) 32
- (C) 34
- (D) 41

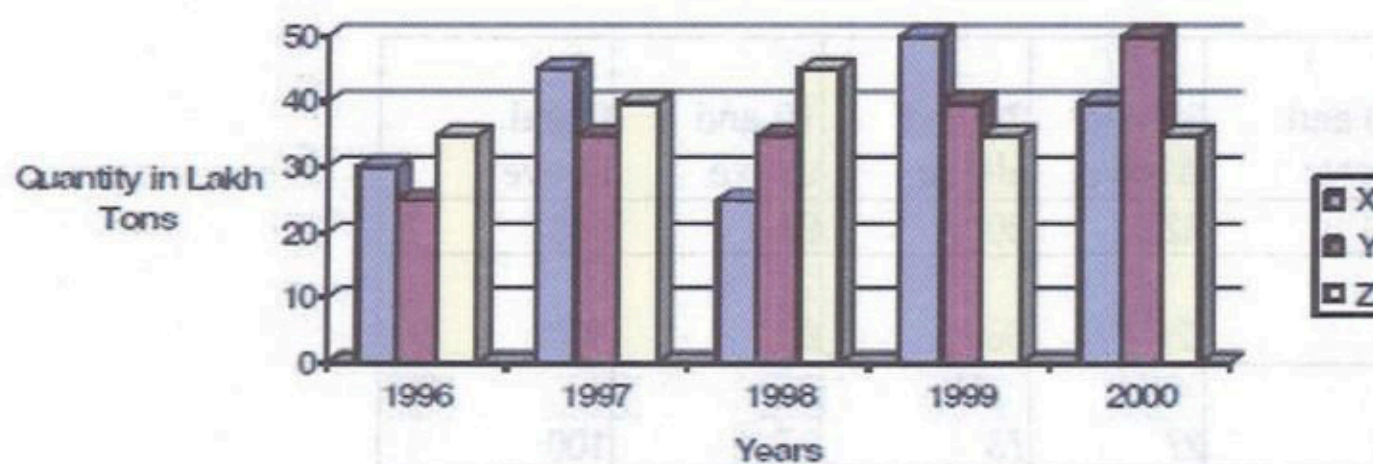
85. The percentage of the number of students getting at least 60% marks in Chemistry over those getting at least 40% marks in aggregate, is approximately:

- (A) 21%
- (B) 27%
- (C) 29%
- (D) 31%

86. If it is known that at least 23 students were eligible for a Symposium on Chemistry, the minimum qualifying marks in Chemistry for eligibility to Symposium would lie in the range:

- (A) 40-50
- (B) 30-40
- (C) 20-30
- (D) Below 20

(Q87-92) The bar graph provided below gives the data of the production of paper (in lakh tonnes) by three different companies X, Y and Z over the years. Study the graph and answer the questions that follow :-





87. What is the difference between the production of the company Z in 1998 and company Y in 1996?

- A) 2,00,000 tons
- B) 20,00,000 tons
- C) 20,000 tons
- D) 2,00,00,000 tons

88. What is the ratio of the average production of company X in the period 1998 to 2000 to the average production of company Y in the same period?

- A) 1:1
- B) 15:27
- C) 23:25
- D) 27:29

89. What is the percentage increase in the production of company Y from 1996 to 1999?

- A) 30%
- B) 45%
- C) 50%
- D) 60%

90. The average production of five years was maximum for which company?

- A) X
- B) Y
- C) X & Y both
- D) X & Z both

91. For which of the following years the percentage rise / fall in production from Previous year is the maximum for company Y?

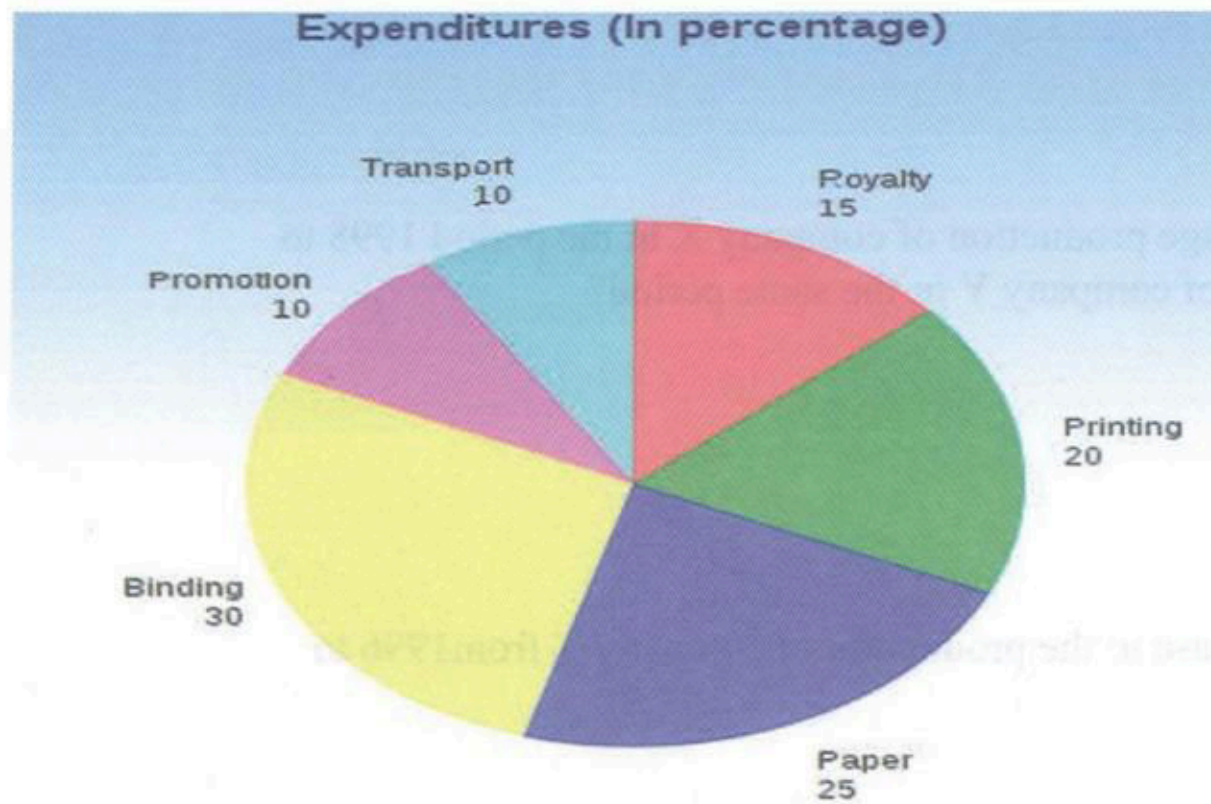
- A) 1997
- B) 1998
- C) 1999
- D) 2000

92. In which year was the percentage of production of company Z to the production of company Y the maximum?

- A) 1996
- B) 1997
- C) 1998
- D) 1999



(Q93-98). The following pie chart shows the percentage distribution of the expenditure incurred in publishing a book. Study the pie chart and answer the following questions.



93. What is the central angle of the sector corresponding to the expenditure incurred on Royalty?
- 54 degree
  - 48 degree
  - 45 degree
  - 40 degree
94. Which two expenditures together have a central angle of 108 degree in the pie chart?
- Binding cost + Royalty cost
  - Printing cost + Paper cost
  - Binding cost + Transportation cost
  - Printing cost + Transportation cost
95. If the difference between the two expenditures is represented by 18 degree in the pie chart, then which option of following can be correct?
- Binding cost and Royalty cost
  - Paper cost and Printing cost
  - Paper cost and Royalty
  - Printing cost and Promotion cost





96. If for an edition of a book, the cost of paper is Rs. 56250, then find the promotion cost for this edition ?

- A) Rs 21500
- B) Rs 22300
- C) Rs 22500
- D) Rs 22700

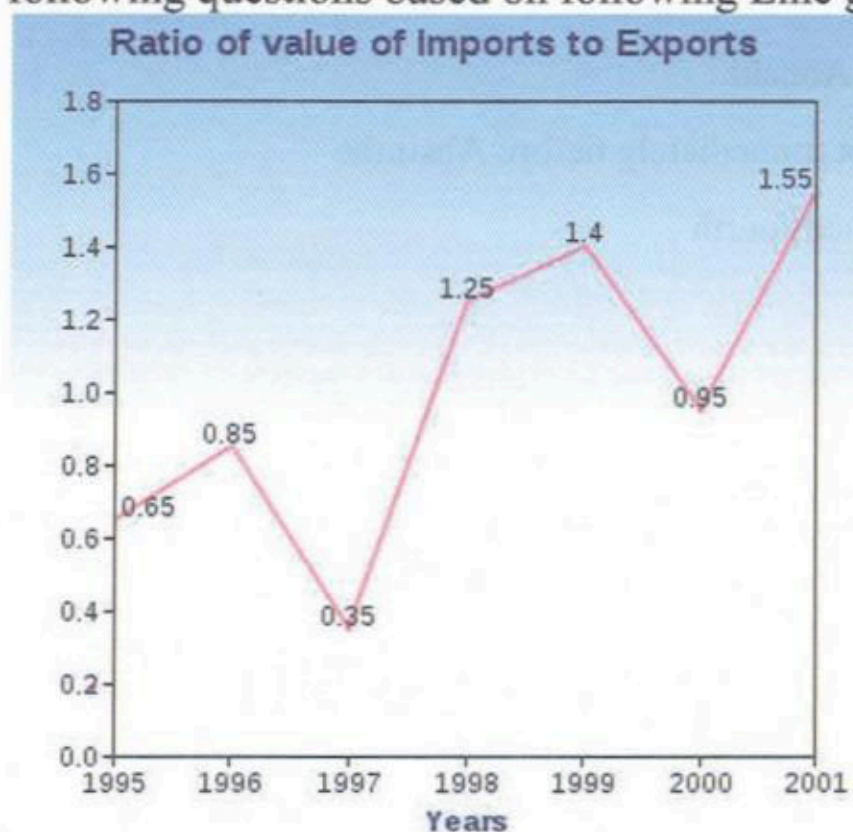
97. If for a certain quantity of books, the publisher has to pay Rs 30,600 as printing cost, then what will be the amount of royalty to be paid for these books?

- A) Rs 22650
- B) Rs 22750
- C) Rs 22850
- D) Rs 22950

98. If 5500 copies are published and the transportation cost on them amounts to Rs. 82500, then what should be the selling price of the book so that the publisher can earn a profit of 25 % ?

- A) Rs 180.50
- B) Rs 182.50
- C) Rs 183.50
- D) Rs 187.50

(Q99-100) The following Line chart gives the ratio of the amounts of imports by a Company to the amount of exports from that Company over the period from 1995 to 2001. Answer the following questions based on following Line graph.



99. In how many of the given years were the exports more than imports?

- A) 1
- B) 2
- C) 3
- D) 4

100. If the imports of the company in 1996 was Rs. 272 crores, the exports from the company in 1996 was:

- A) Rs 120 Crores
- B) Rs 220 Crores
- C) Rs 320 Crores
- D) Rs 420 Crores

