SECTION WISE MATHEMATICS SET FOR IBPS CLERK MAINS

Directions (41-45): What should come in the place of question mark (?) in the following questions?

41. 193.261+275.373+136.93+17.229=?
1) 723.793 2) 622.793 3) 632.673
4) 593.603 5) 713.683

42. $\frac{(43)^{37}\times(43)^{-41}}{(43)^{-6}}$ =?
1) 1849 2) 2139 3) 79507
4) 43 5) None of these

43. $(53.7)^2-(43.6)^2$ =?
1) 970.73 2) 943.71 3) 952.33
4) 982.73 5) None of these

44. $52\times 7\times ?= 4004$
1) 17 2) 13 3) 11
4) 9 5) None of these

45. 76% of 112−42% of 116 =?
1) 38.12 2) 36.40 3) 38.22
4) 42.60 5) None of these

Directions (46-50): What approximate value should come in place of the question mark (?) in the following questions?

46. $\frac{3805.99}{380.6}\times\sqrt{485}\times 1.5001 = 11\times ?$
1) 28 2) 30 3) 32
4) 34 5) 36

47. 1.31% of 1215+0.73% of 1150 = ?
1) 22 2) 24 3) 26
4) 28 5) 30

48. 333.333+3.003+0.333+1.3 = ?
1) 333 2) 335 3) 337
4) 338 5) 339

49. $\sqrt[3]{9000}$ = ?
1) 18 2) 21 3) 24
4) 27 5) 29

50. $\sqrt{783.98}\div\frac{7.07}{2.99}$ = ?
1) 8 2) 10 3) 12
4) 14 5) 15

51. In a lottery, there are 5 prizes and 10 blanks in tickets. A ticket is drawn at random. What is the probability of getting a prize?
1) $\frac{1}{7}$ 2) $\frac{2}{7}$ 3) $\frac{1}{3}$
4) $\frac{2}{3}$ 5) None of these

52. In a class, there are 15 boys and 10 girls. Three students are selected at random. The probability that one girl and two boys are selected is
1) $\frac{4}{25}$ 2) $\frac{25}{117}$ 3) $\frac{1}{50}$
4) $\frac{21}{46}$ 5) None of these

53. The price of 8 chairs is equal to 3 tables. The price of 12 chairs and 5 tables together is Rs.1,520. What is the total price of 10 chairs and 5 tables?
1) Rs. 1500 2) Rs. 1480 3) Rs. 1400
4) Rs. 1360 5) None of these

54. Rohit starts a business with Rs.6,500 and after 8 months Shyam joins Rohit as his partner. After 4 years the profit is divided in the ratio of 13 : 12. What is Shyam's contribution in the capital?
1) Rs. 7400 2) Rs. 7200 3) Rs. 7250
4) Rs. 7630 5) Rs. 7480

55. The speed of a boat in still water is 20 kmph and the rate of current is 4 kmph. The distance travelled by the boat downstream in 30 minutes is
1) 8 km 2) 10 km 3) 12 km
4) 14 km 5) 16 km

56. Rs. 2,000 is invested at 10% p.a. on simple interest. If that interest is added to the principal after every 20 years, the amount will become Rs. 14,000 after
1) 15 years 2) $33\frac{1}{3}$ years 3) $16\frac{2}{3}$ years
4) 40 years 5) None of these

57. Two trains 128 meters and 122 meters long are running towards each other on parallel lines at 48 kmph and 42 kmph respectively. In what time will they clear off each other from the moment they meet?
1) 10 seconds 2) 12 seconds 3) 18 seconds
4) 14 seconds 5) 9 seconds

58. A boat running downstream covers 28 km in 7 hours, while for covering the same distance upstream it takes 14 hours. What is the speed of the boat in still water?
1) 4 kmph 2) 3 kmph 3) 4.2 kmph
4) 5 kmph 5) 6 kmph

59. The daily wage is increased by 50% and a person now gets Rs. 30 per day. What was his daily wage before the increment?
1) Rs. 12 2) Rs. 18 3) Rs. 20
4) Rs. 24 5) None of these

60. Ram sells a car to Mohan at a profit of 16% and Mohan sells it to Shyam at a profit of 25%. How much profit% Ram would have got if he had sold the car directly to Shyam at the price Shyam bought it?
1) 41% 2) 42% 3) 45%
4) 50% 5) None of these

Directions (61-65): What should come in place of question mark (?) in the following number series?

61. 13 35 ? 299 893 2675
1) 97 2) 99 3) 101
4) 103 5) 107

62. 49 ? 169 289 361 529
1) 81 2) 144 3) 196
4) 121 5) 112

63. 26 43 69 ? 181 293 474 767
1) 81 2) 144 3) 196
4) 121 5) 100

64. 30 132 ? 4110 28812 230552
1) 443 2) 512 3) 610
4) 680 5) 710

65. 13 16 20 22 34 ? 55 52 83 76
1) 34 2) 38 3) 42
4) 43 5) 46

Directions (66-70): Study the following graph carefully to answer the questions that follow:



66. What is the percent profit of the company in the year 2004, if the income of the company was Rs. 120 cr?
1) 100% 2) 120% 3) 133%
4) 125% 5) 140%

67. The expenditure of the company in the year 2005 was Rs. 85 cr. What is the ratio of income to expenditure of the company in that year?
1) 23 : 17 2) 5 : 4 3) 11 : 8
4) 21 : 16 5) None of these

68. What is (the **approximate**) average (in Rs. crores) profit made by the company over the years?
1) 50 2) 48 3) 53
4) 57 5) 61

69. The income of the company in the year 2001 was Rs. 950000000. What was the expenditures (in Rs.) of the company in that year?
1) 50000000 2) 550000000 3) 40000000
4) 350000000 5) None of these

70. What is the percent in the profit of the a company in the year 2004 from the previous year?
1) 43% 2) 46% 3) 50%
4) 40% 5) None of these

Directions (71-75): Study the following table carefully and answer accordingly.

Food grains production in a country in 2001 (in lakh tons)

States	Wheat	Rice	Pulses	Jowar	Others
A	52	55	30	15	20
B	78	60	22	72	12
C	99	55	18	—	18
D	24	64	28	70	36
E	15	62	27	45	25
F	12	78	25	52	40
G	120	42	21	—	32

71. If the average per hectare yield of wheat in the country was 25 tons, then the area under wheat cultivation during the year was (in lakh hectares)
1) 12 2) 14 3) 16
4) 1.2 5) None of these

72. State 'F' alone accounted for what percentage of rice production in the country?
1) 20 2) 18 3) 19.5
4) 18.5 5) None of these

73. What state has the highest food grains production the given year?
1) D 2) B 3) A
4) G 5) None of these

74. If the production of pulses in states 'A' and 'B' increase 2% every year, what would be the approximate combined pulse production (in lakh tons) of both the states in 2003?
1) 55.2 2) 52.2 3) 52.9
4) 54.1 5) None of these

75. Total wheat productions of states A, B and C together is how much more than the total wheat production of states, E, F and G together?

1) 72 lakh tons 2) 82 lakh tons 3) 66 lakh tons
4) 76 lakh tons 5) None of these

Directions (76-80) : In each of these questions, two equations are given. You have to solve these equations and find out the values of x and y and-

Give answer

(A) If $x > y$ (B) If $x \geq y$
(C) If $x < y$ (D) If $x \leq y$
(E) If $x = y$ or relationship cannot be established

76. I. $x + y = 18$ **II.** $x^2 + y^2 + xy = 279$
77. I. $x^2 - 4x - 5=0$ **II.** $y^2 - 18x + 81=0$
78. I. $9x^2 - 45x + 54 = 0$ **II.** $18y^2 -117y+189= 0$
79. I. $2x^2 + x -1=0$ **II.** $12y^2 -17y+6 = 0$
80. I. $16x^2 = 1$ **II.** $3y^2 +7y + 2 = 0$

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