

III. Convert the given decimal numbers into fraction.**[5 x 1 = 5]**

36) $4.65 =$ _____ 37) $12.25 =$ _____ 38) $6.35 =$ _____

39) $8.24 =$ _____ 40) $7.25 =$ _____

IV. Solve the following problems.**[10 x 1 = 10]**

- 41) What is the smallest number which when increased by 5 is completely divisible by 8, 11 and 24?
- 42) What is the greatest number of 4 digits that when divided by any of the numbers 6, 9, 12, 17 leaves a remainder of 1?
- 43) What is the smallest number which when divided by 4, 6 or 7 leaves a remainder of 2?
- 44) Find the least number that when divided by 16, 18 and 20 leaves a remainder 4 in each case, but is completely divisible by 7.
- 45) What least number should be subtracted from 1856 so that the remainder when divided by 7, 12 and 16 is 4?
- 46) A cloth merchant sold half of his cloth at 20% profit, half of the remaining at 20% loss and the rest was sold at the cost price. In the total transaction, find his gain or loss.
- 47) The difference between a discount of 35% and two successive discounts of 20% on a certain bill was Rs. 22. Find the amount of the bill.
- 48) After allowing a discount of 11.11% trader still makes a gain of 14.28%. At how many percent above the cost price does he mark on his goods?
- 49) I sold two watches for Rs. 300 each, one at a loss of 10% and the other at the profit of 10%. What is the percentage loss or profit that resulted from the transaction?
- 50) A man buys spirit at Rs. 60 per litre, adds water to it and sells the mixture at Rs. 75 per litre. What is the ratio of spirit to water if his profit in the deal is 37.5%?

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**IIT Foundation (Test - 01)****CLASS-VII (MATHEMATICS)****Total Marks****50****Name** :**Roll No** : **Sec** :**I. Choose the correct answer:****[30 x 1 = 30]**

- 1) Every integer is a _____ number.
a) Whole b) Natural c) Rational d) None of these
- 2) Which among these is the smallest number (positive root only)?
a) $\sqrt{1}$ b) $\sqrt{9}$ c) $\sqrt{4}$ d) None of these
- 3) The sum of a rational and an irrational number is _____.
a) Rational number b) Irrational number c) Unreal number d) None of these
- 4) Find the smallest number.
a) $\sqrt{16}$ b) 2.9 c) $\sqrt{9}$ d) None of these
- 5) Find the smallest five digits number exactly divisible by 16, 24, 36 and 54.
a) 10244 b) 10296 c) 10368 d) None of these
- 6) How many times is the HCF of 48, 36, 72 and 24 contained in their LCM? _____.
a) 12 b) 10 c) 24 d) None of these
- 7) The LCM of 5, 8, 12, 20 will not be a multiple of
a) 13 b) 12 c) 8 d) None of these
- 8) What is the least number by which 2352 is to be multiplied to make it a perfect square?
a) 6 b) 4 c) 3 d) None of these
- 9) The ratio of two numbers is 3:4 and their HCF is 4. Their LCM is
a) 12 b) 48 c) 24 d) None of these
- 10) The HCF of two numbers is 12 and their difference is 12. The numbers are
a) 84, 96 b) 70, 82 c) 94, 106 d) None of these
- 11) LCM of two prime numbers x and y ($x > y$) is 161. The value of $3y - x$ is:
a) -2 b) -1 c) 1 d) None of these

- 12) The LCM of two numbers is 48. The numbers are in the ratio 2:3. The sum of the numbers is:
a) 28 b) 32 c) 40 d) None of these
- 13) The LCM of the two numbers is 45 times their HCF. If one of the numbers is 125 and the sum of HCF and LCM is 1150, the other number is:
a) 215 b) 220 c) 225 d) None of these
- 14) The LCM of three different numbers is 120, which of the following cannot be their HCF?
a) 8 b) 35 c) 24 d) None of these
- 15) The greatest possible length which can be used to measure exactly the lengths 7m, 3m 85 cm, 12m 95cm is:
a) 15 cm b) 25cm c) 35cm d) None of these
- 16) Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.
a) 4 b) 7 c) 9 d) None of these
- 17) What will be the least number which when doubled will be exactly divisible by 12, 18, 21 and 30?
a) 196 b) 630 c) 1260 d) None of these
- 18) The greatest number of four digits which is divisible by 15, 25, 40 and 75 is:
a) 9000 b) 9400 c) 9600 d) None of these
- 19) The least number which when increased by 6 is divisible by each one of 24, 32, 36 and 54 is:
a) 426 b) 858 c) 869 d) None of these
- 20) The least number, which leaves a remainder of 4, when divided by 6, 9, 15 and 18 is:
a) 74 b) 94 c) 184 d) None of these
- 21) Find the least number which when divided by 16, 18, 20 and 25 leaves 4 as remainder in each case, but when divided by 7 leaves no remainder.
a) 17004 b) 18000 c) 18004 d) None of these
- 22) The greatest number which can divide 1356, 1868 and 2764 leaving same remainder 12 in each case is:
a) 64 b) 124 c) 156 d) None of these

- 23) A shopkeeper bought an article for Rs. 2090.42 approximately, what will be the percentage of profit if he sold that article for Rs. 2602.58?
a) 15% b) 20% c) 25% d) None of these
- 24) A fruit seller sells mangoes at the rate of Rs. 9 per kg and thereby loses 20%. At what price per kg, he should have sold them to make a profit of 5%?
a) Rs. 11.81 b) Rs. 12 c) Rs. 12.25 d) None of these
- 25) If 5% more is gained by selling an article for Rs. 350 than by selling it of Rs. 340, the cost of the article is:
a) Rs. 50 b) Rs. 160 c) Rs. 200 d) None of these
- 26) Sam purchased 20 dozens of toys at the rate of Rs. 375 per dozen. He sold each one of them at the rate of Rs. 33. What was his percentage profit?
a) 3.5 b) 4.5 c) 5.6 d) None of these
- 27) A man buys a cycle for Rs. 1400 and sells it at a loss of 15% . what is the selling price of the cycle?
a) Rs. 1090 b) Rs. 1160 c) Rs. 1190 d) None of these
- 28) The ratio between the sale price and the cost price of an article is 7 : 5. What is the ratio between the profit and the cost price of that article?
a) 2 : 5 b) 5 : 2 c) 7 : 2 d) None of these
- 29) In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?
a) 250% b) 70% c) 100% d) None of these
- 30) A trader mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs. 36 per kg and sells the mixture at Rs. 30 per kg. his profit percent is:
a) no profit no loss b) 5% c) 8% d) None of these

II. Find the biggest fraction:

[5 x 1 = 5]

- 31) a) $\frac{3}{4}$ b) $\frac{5}{7}$ c) $\frac{8}{9}$ d) $\frac{11}{12}$ 34) a) $\frac{21}{22}$ b) $\frac{7}{8}$ c) $\frac{5}{7}$ d) $\frac{2}{3}$
- 32) a) $\frac{1}{2}$ b) $\frac{3}{7}$ c) $\frac{8}{10}$ d) $\frac{10}{11}$ 35) a) $\frac{9}{8}$ b) $\frac{10}{8}$ c) $\frac{11}{2}$ d) $\frac{12}{2}$
- 33) a) $\frac{8}{15}$ b) $\frac{9}{16}$ c) $\frac{10}{17}$ d) $\frac{15}{19}$