



# RAMAGYA SCHOOL, NOIDA

VIII/MATHEMATICS/2017-18

## OLYMPIAD PRACTICE WORKSHEET

### (Concept based)

- 1. The duration for which the money is borrowed/deposited \_\_\_\_\_**  
(A) Rate of interest (B) Principal (C) Time (D) None of these
- 2. On what a discount is calculated?**  
(A) Selling Price (B) Cost Price (C) Marked price (D) None of these
- 3. The percent of interest that you pay for money borrowed, or earn for money deposited \_\_\_\_\_**  
(A) Rate of interest (B) Principal (C) Time (D) None of these
- 4. On which of the following percent profit or loss is calculated?**  
(A) Selling Price (B) Cost Price (C) Marked price (D) None of these
- 5. The original sum of money loaned/deposited \_\_\_\_\_**  
(A) Rate of interest (B) Principal (C) Time (D) None of these
- 6. What should be the rate of interest per annum if interest is calculated quarterly?**  
(A) reduced to half (B) reduced to one fourth (C) is doubled (D) becomes four times

### (Application based)

- 7. A bank offers 5% compound interest calculated on half-yearly basis. A customer deposits Rs. 1600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained by way of interest is:**  
(A) Rs. 120 (B) Rs. 121 (C) Rs. 122 (D) Rs. 123
- 8. An article is at 10% more than the CP. If discount of 10% is allowed then which of the following is right?**  
(A) 1% gain (B) 1% loss (C) no gain no loss (D) 1.1% loss
- 9. How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?**  
(A) 5 years (B) 3.5 years (C) 4.5 years (D) 4 years
- 10. What time period is taken when interest is calculated half yearly?**  
(A) twice as much as the number of given years (B) half as much as the number of given years  
(C) same as the number of given years (D) none of these

11. Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?  
(A) 3.6 (B) 6 (C) 18 (D) Cannot be determined

**(HOTS)**

12. If an article sold for Rs 100 then there is a gain of Rs 20, which of the following is the gain percent?  
(A) 25% (B) 22% (C) 20% (D) 16%
13. A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is:  
(A) Rs. 700 (B) Rs. 698 (C) Rs. 690 (D) Rs. 650
14. If MP of a box is Rs 10 and a discount of 10% is allowed then what should be the sale price?  
(A) Rs 11 (B) Rs 10 (C) Rs 9 (D) none of these

**(Value based)**

15. The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is Re. 1. The sum (in Rs.) is:  
(A) 650 (B) 640 (C) 630 (D) 625
16. What should be percentage gain on a product when it is sold for Rs 120 with a gain of Rs 20.  
(A) 20% (B) 25% (C) 22% (D) 16.25%

**(Logical Reasoning)**

17. If DELHI is coded as 73541 and CALCUTTA as 82589662, how can CALICUT be coded?  
(A) 5279431 (B) 5978213 (C) 8251896 (D) 8543691
18. One evening, two friends Riya and Priya were talking to each other, with their backs towards each other, sitting in a park. If Riya's shadow was exactly to the left of her, then which direction was Priya facing?  
(A) North-East (B) north (C) East (D) South
19. If '-' stands for 'x', 'x' stands for '+', '+' stands for '÷' and '÷' stands for '-', then what is the value of  $9 \div 18 \times 15 + 3 - 6 \times 12$  ?  
(A) 33 (B) 42 (C) 24 (D) 30
20. If X is the brother of the son of Y's son, how is X related to Y?  
(A) Cousin (B) Grandson (C) Brother (D) Son