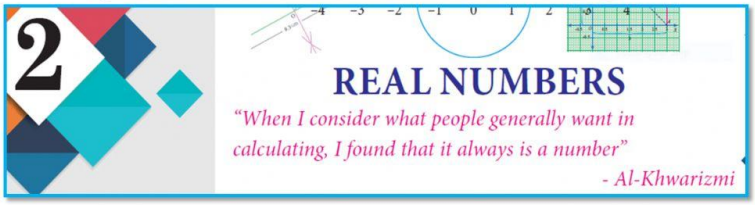
NAME :

CLASS & SEC. :

STD – 9 – MATHS – ONE MARK



2. REAL NUMBERS

"When I consider what people generally want in calculating, I found that it always is a number"

- Al-Khwarizmi

Multiple Choice Questions

1. If n is a natural number then $\sqrt{n}$ is
   (1) always a natural number. (2) always an irrational number.
   (3) always a rational number (4) may be rational or irrational
2. Which of the following is not true?.
   (1) Every rational number is a real number. (2) Every integer is a rational number.
   (3) Every real number is an irrational number. (4) Every natural number is a whole number.
3. Which one of the following, regarding sum of two irrational numbers, is true?
   (1) always an irrational number. (2) may be a rational or irrational number.
   (3) always a rational number. (4) always an integer.
4. Which one of the following has a terminating decimal expansion?.
   (1) $\frac{5}{64}$ (2) $\frac{8}{9}$ (3) $\frac{14}{15}$ (4) $\frac{1}{12}$
5. Which one of the following is an irrational number
   (1) $\sqrt{25}$ (2) $\sqrt{\frac{9}{4}}$ (3) $\frac{7}{11}$ (4) π
6. An irrational number between 2 and 2.5 is
   (1) $\sqrt{11}$ (2) $\sqrt{5}$ (3) $\sqrt{2.5}$ (4) $\sqrt{8}$
7. The smallest rational number by which $\frac{1}{3}$ should be multiplied so that its decimal expansion terminates with one place of decimal is
   (1) $\frac{1}{10}$ (2) $\frac{3}{10}$ (3) 3 (4) 30
8. If $\frac{1}{7} = 0.\overline{142857}$ then the value of $\frac{5}{7}$ is
   (1) $0.\overline{142857}$ (2) $0.\overline{714285}$ (3) $0.\overline{571428}$ (4) 0.714285
9. Find the odd one out of the following.
   (1) $\sqrt{32} \times \sqrt{2}$ (2) $\frac{\sqrt{27}}{\sqrt{3}}$ (3) $\sqrt{72} \times \sqrt{8}$ (4) $\frac{\sqrt{54}}{\sqrt{18}}$
10. $0.\overline{34} + 0.3\overline{4} =$
    (1) $0.6\overline{87}$ (2) $0.\overline{68}$ (3) $0.6\overline{8}$ (4) $0.68\overline{7}$
11. Which of the following statement is false?
    (1) The square root of 25 is 5 or -5 (3) $\sqrt{25} = 5$
    (2) $-\sqrt{25} = -5$ (4) $\sqrt{25} = \pm 5$
12. Which one of the following is not a rational number?
    (1) $\sqrt{\frac{8}{18}}$ (2) $\frac{7}{3}$ (3) $\sqrt{0.01}$ (4) $\sqrt{13}$
13. $\sqrt{27} + \sqrt{12} =$
    (1) $\sqrt{39}$ (2) $5\sqrt{6}$ (3) $5\sqrt{3}$ (4) $3\sqrt{5}$
14. If $\sqrt{80} = k\sqrt{5}$, then $k =$
    (1) 2 (2) 4 (3) 8 (4) 16
15. $4\sqrt{7} \times 2\sqrt{3} =$
    (1) $6\sqrt{10}$ (2) $8\sqrt{21}$ (3) $8\sqrt{10}$ (4) $6\sqrt{21}$
16. When written with a rational denominator, the expression $\frac{2\sqrt{3}}{3\sqrt{2}}$ can be simplified as
    (1) $\frac{\sqrt{2}}{3}$ (2) $\frac{\sqrt{3}}{2}$ (3) $\frac{\sqrt{6}}{3}$ (4) $\frac{2}{3}$
17. When $\left(2\sqrt{5} - \sqrt{2}\right)^2$ is simplified, we get
    (1) $4\sqrt{5} + 2\sqrt{2}$ (2) $22 - 4\sqrt{10}$ (3) $8 - 4\sqrt{10}$ (4) $2\sqrt{10} - 2$
18. $\left(0.000729\right)^{\frac{-3}{4}} \times \left(0.09\right)^{\frac{-3}{4}} =$ _____
    (1) $\frac{10^3}{3^3}$ (2) $\frac{10^5}{3^5}$ (3) $\frac{10^2}{3^2}$ (4) $\frac{10^6}{3^6}$
19. If $\sqrt{9^x} = \sqrt[3]{9^2}$, then $x =$ _____
    (1) $\frac{2}{3}$ (2) $\frac{4}{3}$ (3) $\frac{1}{3}$ (4) $\frac{5}{3}$
20. The length and breadth of a rectangular plot are 5×10^5 and 4×10^4 metres respectively. Its area is _____.
    (1) $9\times10^1\ m^2$ (2) $9\times10^9\ m^2$ (3) $2\times10^{10}\ m^2$ (4) $20\times10^{20}\ m^2$

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