Pabna Cadet College

3rd Tutorial Examination

Subject: Mathematics

Class: VII

Time: 40 minutes Full Marks: 20

Answer all the questions

1. A pen is bought at Tk. 5. What should be its selling price to make a profit of 5%?

i. 8% ii. 7% iii. 5.25% iv. 5.50%

Answer: iii. 5.25%

2. 0.0019 meter = ___cm

i. 19 ii. 0.19 iii.190 iv. 0.019

Answer: ii. 0.19

3. 12 k.m and 9 cm. = ___m.

i. 12000.09 cm ii. 120.9 cm iii. 12000.90 cm iv. 1200.009 cm

Answer: 12000.09 cm

4. How many sq. meters (approx.) is equal to 1 sq. yard?

i. 0.64 ii. 0.74 iii. 0.841 iv. 0.84

Answer: iv. 0.84

5. The length and width of a rectangle are 5 meter 4 meter, respectively, what is its area in sq. cm?

i. 0.02 ii. 0.2 iii. 0.002 iv. 20

Answer: iii. 0.002

6. 50 kg = how many quintals?

i. 0.5 ii. 5 iii. 1 iv. 10

Answer: i. 0.5

7. The buying price of a product is $5. If it is sold at $4, what is the profit?

i. No profit ii. $1 iii. -$1 iv. 2%

Answer: iii. -$1

8. The purchasing price of a commodity is $X and loss is $Z. What is the selling price?

i. X+Z ii. Z-X iii. X-Z iv. Z

Answer: iii. X-Z

9. If 1 liter milk is bought at $20 and sold at $25, what is the percentage of profit?

i. 25% ii. 50% iii. 20% iv. 10% Answer: i. 25%

10. 30% of 80% of 120 is

i. 28.8 ii. 2.88 iii. 28.8% iv. 28.8

Answer: iv. 28.8

11. Which of the following is an equivalent fraction of $\frac{2}{5}$?

i. $\frac{4}{16}$ ii. $\frac{4}{12}$ iii. $\frac{2}{10}$ iv. $\frac{4}{8}$

Answer: i. $\frac{4}{16}$

12. $\frac{x^3y^2z^2}{x^2y^3z^3}$ expressed in lowest form is

i. $\frac{ab}{b^2}$ ii. $\frac{a^b}{ab}$ iii. $\frac{a^2}{b^2}$ iv. $\frac{a+b}{a-b}$

Answer: iii. $\frac{a^2}{b^2}$

13. $\frac{x-3}{x+4}$ and $\frac{x^2+2x-15}{x^2+9x+20}$ are two fractions. What is the quotient if first one is divided by the second one?

i. -1 ii. 1 iii. 0 iv. x+5

Answer: ii. 1

14. Which of the following is expressed in the lowest possible form?

i. $\frac{z^2+z}{z+1}$ ii. $\frac{x+y}{z^3}$ iii. $\frac{x^2z^6}{x^5z^3}$ iv. $\frac{p^2-9}{p(p+3)}$

Answer: ii. $\frac{x+y}{z^3}$

15. Which of the following is the expression of the two fractions $\frac{x}{y}$ and $\frac{y}{x}$ in the fraction with same denominator?

i. $\frac{x^2}{y^2}, \frac{y^2}{x^2}$ ii. $\frac{xy}{x}, \frac{xy}{y}$ iii. $\frac{x}{y}, \frac{y}{x}$ iv. $\frac{x^2}{xy}, \frac{y^2}{xy}$

Answer: iv. $\frac{x^2}{y^2}, \frac{y^2}{x^2}$

16. In solving equation, an unknown expression is called-

i. root ii. variable iii. solution iv. algorithm

Answer: ii. variable

17. Solution of $\frac{x}{3} + \frac{1}{3} = \frac{1}{2} - \frac{x}{2}$ is-

i. $\frac{1}{5}$ ii. $\frac{1}{6}$ iii. $\frac{1}{3}$ iv. $\frac{2}{3}$

Answer: i. $\frac{1}{5}$

18. If $\sqrt{x+3} = 2$, what is the root of the equation?

i. 1 ii. 2 iii. 3 iv. 4

Answer: i. 1

19. Algebra owes its origin to which book?

i. Al Jabr Wal Muqabala ii. Al Mukhtasar AlKitab fi Hisab AlJabr Wal Muqabala iii. Al Mukhtasar Al Jabr Wal Muqabala iv. Al Kitab Al Mukhtasar fi Hisab Al Jabr Wal Muqabala

Answer: iv. Al Kitab Al Mukhtasar fi Hisab Al Jabr Wal Muqabala

20. 2x+1=5x-8 5x-8=2x+1; which law has been used here?

i. Transposition ii. Cancellation iii. Symmetry iv. Cross-addition

Answer: iii. Symmetry

—Good Luck—