



Techno ACE

Model Question Paper

Mathematics

Class: VIII going to IX

Time: 22.5 mints

F.M. $15 \times 4 = 60$

For every correct answer examinee will be awarded +4 marks and for every wrong answer it will be – 1 mark

- What is the smallest number to be subtracted from 549162 in order to make it perfect square?
(A) 28 (B) 36
(C) 62 (D) 81
- Evaluate the value of $\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$
(A) 3 (B) 5
(C) 6 (D) 7
- The ratio of the ages of A and B ten years before was 3:5. The ratio of their present ages is 2:3. Their ages are respectively.
(A) 30, 50 (B) 40, 60
(C) 20, 30 (D) 16, 24
- A man is 5 years older than his wife and the wife is now thrice as old as their daughter, who is 10 years old. How old was the man when his daughter was born?
(A) 20 years (B) 23 years
(C) 25 years (D) 30 years
- If $(15.86x15.86 + 15.86y + 0.13x0.13)$ is a perfect square, then $(100y)^2$ is
(A) 67600 (B) 57600
(C) 576 (D) 676
- Simple interest on a certain sum of money for 5 years at the rate of 5% per annum is half the compound interest on ₹3000 for 2 years at 10% per annum. The sum placed on simple interest is

- (A) ₹ 1320
- (B) ₹1260
- (C) ₹1460
- (D) ₹1275

7. How many two digits perfect square numbers are there whose unit's digit is a perfect cube?

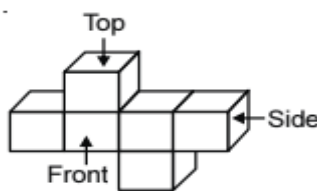
- (A) 1
- (B) 3
- (C) 4
- (D) 2

8. The given figure consists of x faces. The value of x is

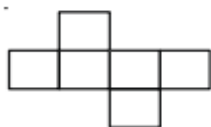
- (A) 8
- (B) 10
- (C) 12
- (D) 14



9. The side view of the given solid is



(A)



(B)



(C)



(D)



10. Square root of abcdefghi, where a ... i are digits, will contain x digits. The value of x is

- (A) 3
- (B) 4
- (C) 5
- (D) 6

11. Manju starts for her school at 8:16 a.m. on her bicycle. If she travels at a speed of 12 km/h, then she reaches her school late by 7 minutes but on travelling at 18 km/h, she reaches the school 10 minutes early. At what time does the school start?

- (A) 8:30 a.m.
- (B) 8:56 a.m.
- (C) 9:00 a.m.
- (D) 8:45 a.m.

12. From a bag containing 15 red balls, 12 green balls, 18 black balls and 9 blue balls, a ball is drawn at random. If the probability of drawing that specific coloured ball is $\frac{5}{18}$, then ball of which colour has been drawn?

- (A) Red
- (B) Green
- (C) Black
- (D) Blue

13. The number of diagonals in a polygon of $(n + 1)$ sides is

(A) $\frac{n(n-3)}{2}$

(B) $\frac{(n+1)(n-2)}{2}$

(C) $\frac{n(n-2)}{2}$

(D) $\frac{n(n+1)}{2}$

14. If $x + \frac{1}{x} = 2$, then the value of $x^{99} + \frac{1}{x^{99}}$ is

(A) 1

(B) 2^{99}

(C) 2

(D) $\frac{1}{2^{99}}$

15. Which of the following is/are closed under subtraction?

(a) Integers

(b) Natural numbers

(c) Rational numbers

(d) Whole numbers

(A) a, b & c

(B) b & d

(C) a & c

(D) b, c & d