CL 9_ MATHS_ PAPER 2 _ HALF YEARLY

Date: 06/09/2021
Duration: 45 minutes
Marks: 30

The respondent's email (**null**) was recorded on submission of this form.
* Required

1. Email *

2. NAME: *

CLASS 9:

3. SECTION: *

Mark only one oval.

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

4. Question 1 *

2 points

1) The number obtained on rationalizing the denominator of $\frac{1}{\sqrt{5}-2}$

Mark only one oval.

a) $\frac{\sqrt{5}+2}{21}$

Option 1

b) $\sqrt{5}+2$

Option 2

c) $\sqrt{5}-2$

Option 3

d) $\frac{\sqrt{5}-2}{21}$

Option 4

5. Question 2. Find the Compound Interest for second year on ₹ 25000 at 12% per annum compounded annually. * 2 points

Mark only one oval.

- ₹3000
- ₹3600
- ₹3360
- ₹3060

6. Question 3 * 2 points

3) If $a + b + 2c = 0$, then the value of $a^3 + b^3 + 8c^3$ is

Mark only one oval.

- abc
- 2abc
- 4abc
- 6abc

7. Question 4 * 2 points

4) After factorization $3 - 12(a - b)^2$ becomes

Mark only one oval.

- 3(1 + 2a - 2b)(1 - 2a + 2b)
- (3 + 6a -6b)(3 - 6a -6b)
- 3(1 - 2a -2b)(1 -2a +2b)
- (3 + 6a - 6b)(3 - 6a + 6b)

8. Question 5. The value of x for the pairs of equations, 3x + 2y = 4 and 8x + 5y =9 is * 2 points

Mark only one oval.

- 2
- - 2
- 5
- -5

9. Question 6 * 2 points

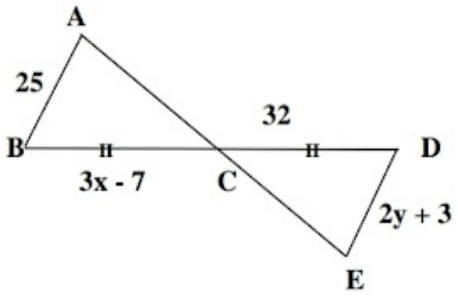
6) The value of $(a^{-1} + b^{-1})(a + b)^{-1}$ is

Mark only one oval.

- ab
- 1 ÷ (ab)
- 1÷a
- 1÷b

10. Question 7 * 2 points

7) In the following figure if angle BAC = angle CED, calculate the value of x and y

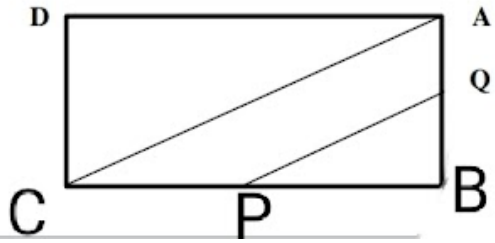


Mark only one oval.

- x= 13, y= 11
- x = 11, y = 13
- x= -13, y = 11
- x = -11, y = 13

11. Question 8 * 2 points

8) In the adjoining figure , ABCD is a rectangle in which AB = 6cm and AD = 8cm . If P and Q are mid points of the sides BC and AB respectively , then the length of PQ is



Mark only one oval.

- 7cm
- 5cm
- 4cm
- 3cm

12. Question 9 * 2 points

9) If $\cos A = \frac{4}{5}$, then the value of tan A is

Mark only one oval.

- 3/5
- 3/4
- 4/3
- 5/3

13. Question 10. The distance between C (-1, 4) and D (-2 , -1) is * 2 points

Mark only one oval.

- √34 units
- √18 units
- √26 units
- √10 units

14. Question 11. How many times the wheel of a car can rotate in a journey of 88km if it is known that the diameter of the wheel is 56cm. * 2 points

Mark only one oval.

- 50
- 500
- 5000
- 50000

15. Question 12 * 2 points

12) The value of $2\tan 30° \div (1 + \tan^2 30°)$ is equal to,

Mark only one oval.

- cos60°
- sin60°
- tan60°
- cosec60°

16. Question 13. * 2 points

13) If $x - \frac{1}{x} = 5$, then the value of $x^2 + (\frac{1}{x})^2$ is

Mark only one oval.

- 25
- 23
- 27
- 29

17. Question 14 * 2 points

14) Factorisation of $x^2 - 4x - 12$ is

Mark only one oval.

- (x + 6)(x -2)
- (x -6)(x+ 2)
- (x - 6)(x -2)
- (x + 6)(x + 2)

18. Question 15 *

2 points

15) If a = 3 and b = -2 , then the value of $a^b + b^a$ is

Mark only one oval.

- - 71/9
- 17
- 1
- 12