## (0) UNICUS

## Sample Paper

## Class 3

| Section | Total <br> Questions | Marks per <br> Questions | Total <br> Questions |
| :---: | :---: | :---: | :---: |
| Classic Section | 10 | 3 | 30 |
| Scholar Section | 10 | 6 | 60 |
| Grand Total | $\mathbf{2 0}$ |  | $\mathbf{9 0}$ |

## Unicus Non-Routine Mathematics Olympiad (UNRMO)

## Classic Section (Each Question is 3 Marks)

1. The sum of 2009 and a 3 -digit number is a square number. What will be the smallest possible value of the 3 -digit number?
a. 116
b. 107
c. 110
d. 114
2. How many lines of symmetry is/are there in the given figure?

a. 1
b. 6
c. 3
d. 4
3. Rahul purchased 11 balloons to share with his classmates. If it costs him 1320 cents to buy them, then the price of one balloon is:
a. $\$ 12$
b. $\$ 1.2$
c. $\$ 11$
d. $\$ 1.1$
4. Albert jogged 2 rounds around a square field. If the total distance covered was 1 km 800 m , find the distance of one side of the square field.
a. 200 m
b. 450 m
c. 600 m
d. 225 m
5. Paul is 10 years old and Harry is four years younger to Paul. How old will Paul be when Harry is 25 years old?
a. 21
b. 15
c. 19
d. 29
6. A small bottle of oil can hold 130 ml of oil. How many oil bottles will be required to fill an oil can of capacity 5 litres and 200 ml ?
a. 40
b. 38
c. 30
d. 42

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7. 4 pies of equal sizes were cut as follows: Pie 1 was cut into 12 pieces, Pie 2 was cut into 8 pieces, Pie 3 was cut into 14 pieces and Pie 4 was cut into 6 pieces. From which pie should you eat so that you get the smallest piece?
a. Pie 1
b. Pie 2
c. Pie 3
d. Pie 4
8. The difference between the number of horizontal and vertical lines in the figure is:

a. 5
b. 3
c. 4
d. 0
9. 504 can be expressed as a product of primes numbers as:
a. $2 \times 2 \times 2 \times 3 \times 3 \times 7$
b. $2 \times 2 \times 2 \times 2 \times 3 \times 7$
c. $2 \times 2 \times 3 \times 3 \times 3 \times 7$
d. $2 \times 3 \times 3 \times 3 \times 3 \times 7$
10. Sunny wanted to number her house as the smallest 5 -digit number which can be formed by using the digits $2,4,5,1,0,9$. What will be her house number if any one number can be repeated twice?
a. 12341
b. 11234
c. 10024
d. 11024

## Scholar Section (Each Question is $\mathbf{6}$ Marks)

11. The diagram is divided into 3 smaller rectangles and a square. If the perimeter of the unshaded rectangle is 42 cm and the area of the square is $16 \mathrm{~cm}^{2}$, find the perimeter of the shaded region.

a. 42 cm
b. 58 cm
c. 60 cm
d. 72 cm

## Unicus Non-Routine Mathematics Olympiad (UNRMO)

12. Pam had 45 _ glitters. If she can divide the glitters into groups of 6,4 and 12 . Find the missing digits.
a. 4.1
b. 2.9
c. 0.0
d. 8.3
13. Reh got $\$ 500$ on her birthday. She wanted to spend as much money as she could. If she buys at least one of every item in the shop, how much money is left with her?

| Teddy <br> bear | Hand <br> clutch | Smart <br> pen |
| :---: | :---: | :---: |
| $\$ 3$ | $\$ 15$ | $\$ 300$ |

a. $\$ 182$
b. $\$ 2$
c. $\$ 128$
d. $\$ 1$
14. The perimeters of two squares are 24 cm and 32 cm respectively. Find the perimeter of the third square whose area is equal to the sum of the areas of the two squares.
a. 40 cm
b. 160 cm
c. 224 cm
d. 200 cm
15. Sennie's vacations started on 30th November 2018 and lasted till the end of next month. If 8th January 2019 was a Tuesday on which day did Sennie's vacation start?
a. Friday
b. Saturday
c. Sunday
d. Thursday
16. The street vendor sells 153.97 litres of milk on Monday and 16.03 litres more than the Monday sale on Tuesday. On Wednesday, 12.14 litres less milk was sold than the quantity sold on Tuesday. How many litres were sold on Wednesday?
a. 1578.6 litres
b. 157.86 litres
c. 156.68 litres
d. 156.12 litres
17. Three friends shared a pizza. If Harry ate $5 / 12$ th of the pizza while Sara ate $1 / 3$ rd of the remaining pizza, what fraction of the pizza did Ali eat?
a. $3 / 12$
b. $6 / 12$
c. $7 / 18$
d. $10 / 18$
18. What is the maximum number of pieces a pizza can be cut into by using 3 straight cuts? (Note: the pieces need not be of equal sizes)

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a. 5
b. 6
c. 7
d. 4
19. Shine bought a new Harry Potter book which had 234 pages. What is the total of all the page numbers of her book?
a. 27495
b. 27261
c. 54990
d. 54522
20. $1 / 5$ th of the sum of 333 thousands and 33 hundreds is $\qquad$ .
a. 336300
b. 7320
c. 67260
d. 36600

## Answer Key

| 1. | b | 2. | c | 3. | b | 4. | d | 5. | d | 6. | a | 7. | c |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. | c | 9. | a | 10. | c | 11. | b | 12. | c | 13. | a | 14. | a |  |  |  |  |
| 15. | a | 16. | b | 17. | c | 18. | c | 19. | a | 20. | c |  |  |  |  |  |  |

