

CRPF PUBLIC SCHOOL, ROHINI

THIRD InTRa SchOol MaThEMaTicS oLyMPlAd 2012

CLASS VII

Max. Marks: 50

Max. Time: 1 hour 30 minutes

General Instructions:

1. Q1-15 (Section A) each MCQ carries 2 mark. Each question has five choices (A, B, C, D or E). Select the correct answer to each question and darken the corresponding circle in the Answer Sheet provided to you. **THERE IS NO NEGATIVE MARKING.** Marking of more than one circle for an answer shall be awarded zero mark.
2. Q16-20 (Section B) each question carries 4 mark. You are to give the complete solution. Marking will be done stepwise.

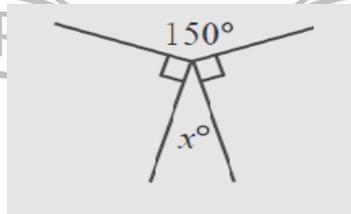
योग: वर्त्मनः कौशलम्

SECTION - A

Q1. Shahrukh gets on the elevator on the eleventh floor. The elevator goes down two floors, then stops. Then the elevator goes down four more floors and shahrukh gets off the elevator. On what floor does shahrukh get off the elevator?

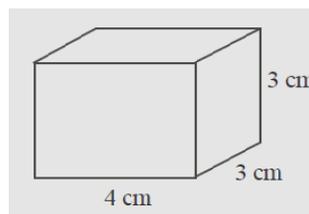
- A) 7th floor B) 9th floor C) 4th floor D) 5th floor E) 6th floor

Q2. In the diagram, the value of x is:



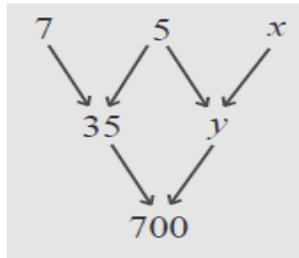
- A) 40 B) 35 C) 150 D) 30 E) 25

Q3. How many $1\text{cm} \times 1\text{cm} \times 1\text{cm}$ blocks are needed to build the solid rectangular prism shown?



- A) 10 B) 12 C) 33 D) 66 E) 36

Q4. Each number below the top row is the product of the number to the right and the number to the left in the row immediately above it. What is the value of x?



- A) 8 B) 4 C) 7 D) 5 E) 6

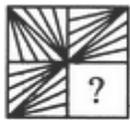
Q5. The smallest number in the list {1.0101 , 1.0011 , 1.0110 , 1.1001 , 1.1100} is:

- A) 1.0101 B) 1.0011 C) 1.0110 D) 1.1001 E) 1.1100

Q6. A car runs at the rate of 12 km per hour. How many kilometers does the car travel in 10 minutes?

- A) 120 B) 1.2 C) 2 D) 2.4 E) 1.67

Q7. Identify the picture that completes the pattern:



(x)



(1)



(2)



(3)



(4)

- A) 1 B) 2 C) 3 D) 4 E) None of These

Q8. Choose the alternative which closely resembles the water image of the given combination

E8t4e9C

- (A) E8t4e9C B) E8t4e9C C) E8t4e9C D) E8t4e9C E) None of These

Q9. The value of $\left(1-\frac{1}{2}\right)\left(1-\frac{1}{3}\right)\left(1-\frac{1}{3}\right)\left(1-\frac{1}{4}\right)\dots\left(1-\frac{1}{2012}\right)$ is:

- A) $\frac{1}{2012}$ B) $\frac{2}{2012}$ C) $\frac{202}{2012}$ D) $\frac{24}{2012}$ E) $\frac{2011}{2012}$

Q10. Find the missing number in the series 2, 6, 12, 20, 30, _____

- A) 40 B) 42 C) 36 D) 38 E) 45

Q11. In the multiplication question, the sum of the digits in the four boxes is:

$$\begin{array}{r}
 879 \\
 \times 492 \\
 \hline
 \square 758 \\
 7\square 11 \\
 35\square 6 \\
 \hline
 43\square 468
 \end{array}$$

- A) 13 B) 12 C) 27 D) 9 E) 22

Q12. Two numbers have a sum of 32. If one of the numbers is -36, what is the other number?

- A) 68 B) -4 C) 4 D) 72 E) -68

Q13. If the mean of five consecutive integers is 21, the smallest of the five integers is

- A) 17 B) 21 C) 1 D) 18 E) 19

Q14. The product $60 \times 60 \times 24 \times 7$ equals:

- A) The number of minutes in seven weeks
 B) The number of hours in sixty days
 C) The number of seconds in seven hours
 D) The number of seconds in one week
 E) The number of minutes in twenty four weeks

Q15. In the chart, each number below the top row is the positive difference of the two numbers to the right and left in the row immediately above it. What is the value of x ?

8	9	17	6	4
1	8	-	-	2
	7	-	-	-
		-	-	-
			x	

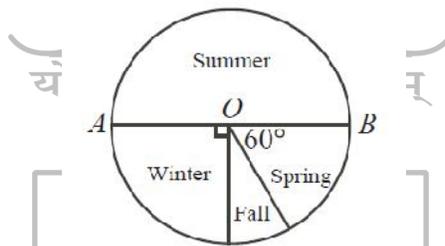
- A) 1 B) 2 C) 3 D) 4 E) 0

SECTION – B

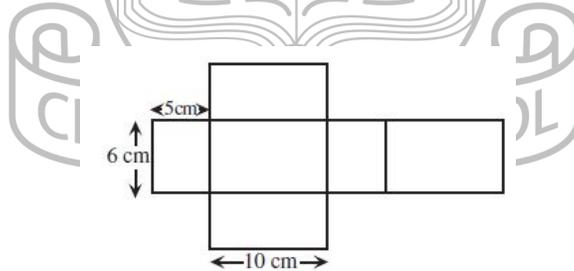
Q16. Square M has an area of 100cm^2 . The area of square N is four times the area of square M. Find perimeter of square N.

Q17. Sunita ate $\frac{1}{4}$ of a pie and Rita ate $\frac{3}{10}$ of the same pie. The next day Ram ate $\frac{2}{3}$ of the pie that was left .What fraction of the original pie was not eaten?

Q18. In the diagram, O is the centre of the circle, AOB is a diameter, and the circle graph illustrates the favourite season of 600 students. How many of the students surveyed chose Fall as their favourite season?



Q19. The figure shown can be folded along the lines to form a rectangular prism. Find the surface area of the rectangular prism in cm^2 .



Q20. A man has Rs.480 in the denominations of one- rupee notes, five –rupee notes and ten – rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has?

*****END OF PAPER*****

NOTE: The **Solution Key** of this paper will be available on School's blog www.crpfpsrohini.blogspot.in today after 6 pm. The **Result** will be declared on 30 November 2012 and will be available on School's blog.