

CRPF PUBLIC SCHOOL, ROHINI

THIRD InTRa SchOol MaThEmaTicS oF yMplad 2012

CLASS VIII

Max. Marks: 50

Max. Time: 1 hour 30 minutes

General Instructions:

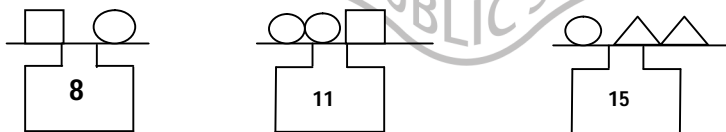
1. Q1-15 (Section A) each MCQ carries 2 mark. Each question has five choices (A, B, C, D or E). Select the correct answer to each question and darken the corresponding circle in the Answer Sheet provided to you. **THERE IS NO NEGATIVE MARKING.** Marking of more than one circle for an answer shall be 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: वर्तमान शैक्षणिक
SECTION - A

Q.1 Rani, Divya and Rahul are having a race on their broomsticks. If there are no ties, in how many different possible orders can they finish?

- (A) 7 (B) 6 (C) 5 (D) 4 (E) 3

Q.2 In the following diagram, each scale shows the total mass (weight) of the shapes on that scale. What is the mass (weight) of a triangle?



- (A) 3 (B) 5 (C) 12 (D) 6 (E) 5.5

Q.3 The whole numbers from 1 to 1000 are written. How many of these numbers have at least two 7's appearing side-by-side?

- (A) 10 (B) 11 (C) 21 (D) 30 (E) 19

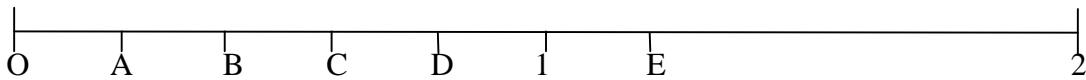
Q.4 If the mean (average) of five consecutive integers is 21, the smallest of five integers is

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

Q.5 Which of these values is the largest?

- (A) $\frac{4}{2-\frac{1}{4}}$ (B) $\frac{4}{2+\frac{1}{4}}$ (C) $\frac{4}{2-\frac{1}{3}}$ (D) $\frac{4}{2+\frac{1}{3}}$ (E) $\frac{4}{2-\frac{1}{2}}$

Q.6 The points A,B,C,D and E represent values along the number line as shown. Which point best represents the value of $B \times C$?



- (A) A (B) B (C) C (D) D (E) E

Q.7 The time on a digital clock reads 3 : 33. What is the shortest length of time, in minutes , until all the digits are again equal to each other?

- (A) 71 (B) 60 (C) 142 (D) 222 (E) 111

Q.8 Find the value of :

$$\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$$

- (A) 3 (B) 6 (C) 5 (D) 6.4 (E) None of these

Q.9 If the figure is rotated 180° about F, the result could be:

(A) (B) (C) (D)

(E) None of these

Q.10 In the addition of three – digit number shown, the letter ‘x’ and ‘y’ represent different digits

$$\begin{array}{r} 3 \ x \ y \\ + \ y \ x \ 3 \\ \hline 1 \ x \ 1 \ x \end{array}$$

Then the value of $y - x$ is

- (A) 3 (B) -5 (C) 7 (D) -7 (E) 2

Q.11 If $10^x - 10 = 9990$, then x is equal to :

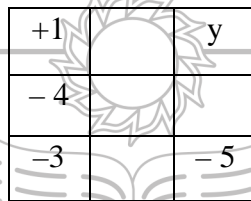
- (A) 3 (B) 5 (C) 6 (D) 4 (E) 9

Q.12 John ate $\frac{1}{4}$ of a pie and Bipasha ate $\frac{3}{10}$ of the same pie. The next day Priyanka ate $\frac{2}{3}$ of the pie that was left. What fraction of the original pie was not eaten?

- (A) $\frac{9}{10}$ (B) $\frac{3}{10}$ (C) $\frac{7}{60}$ (D) $\frac{3}{20}$ (E) $\frac{1}{20}$

Q.13 In a magic square, all rows, columns and diagonals have the same sum. The magic square uses each of the integers from -6 to $+2$. What is the value of y ?

योग: कर्मसु कौशलम्



+1		y
-4		
-3		-5

- (A) -1 (B) 0 (C) -6 (D) $+2$ (E) -2

Q.14 The product of $60 \times 60 \times 24 \times 7$ equals:

- (A) The number of minutes in 7 weeks.
(B) The number of hours in 60 days.
(C) The number of seconds in 7 hours.
(D) The number of seconds in one week.
(E) The number of minutes in 24 weeks.

Q.15 The area of a rhombus is 28cm^2 and one of its diagonals is 4 cm. Its perimeter is

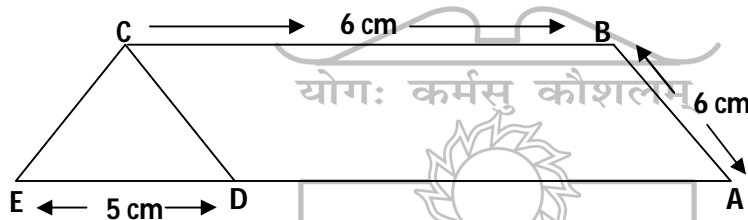
- (A) $4\sqrt{53}$ cm (B) 36 cm (C) $2\sqrt{53}$ cm (D) 40 cm
(E) None of these

SECTION – B

Q.16 'A' can do a piece of work in 80 days. He works at it for 10 days and then 'B' alone finishes the work in 42 days. The two together could have completed the work in how many days?

Q.17 A boat goes downstream and covers the distance between two ports in 4 hrs. while it covers the same distance upstream in 5 hrs. If the speed of the stream is 2km per hour, then find the speed of the boat in still water?

Q.18 The diagram, ABCD is a parallelogram and ADE is a straight line. Given that the area of the triangle CDE is 10 cm^2 , then find the area of the whole diagram in cm^2 .



Q.19 A sum of money doubles itself in 3 yrs. at compound interest, when the interest is compounded annually. In how many years will it amount to 16 times of itself?

Q.20 If each edge of a cube is increased by 25%, then what is the percentage increase in its surface area?

*****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.