

CRPF PUBLIC SCHOOL, ROHINI

First Intra School Mathematics Olympiad 2010

CLASS VII

Max. Marks: 60

Time: 1 hour 30 minutes

General Instructions:

1. Each question of Section A (Q1-5) carries 2 marks, that of Section B (Q6-15) carries 3 marks and of Section C (Q16-20) carries 4 marks.
2. 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. For each correct answer in section A, B and C, two, three and four marks will be awarded respectively. **One mark will be deducted for each incorrect answer (of all the sections), while no mark will be deducted for any unattempted question.** Darkening of more than one circle for any answer shall bear zero mark.
3. Darken the correct circle with HB Pencil ONLY.
4. Do not make any stray marks on the answer sheet and do not use it for any kind of Rough Work.

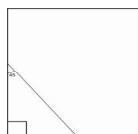
SECTION - A

Q.1. Using the least common denominator to simplify $\frac{7}{8} - \frac{5}{6}$, which of the following shows the next step?

- (A) $\left(\frac{7}{8} \times \frac{3}{3}\right) - \left(\frac{5}{6} \times \frac{4}{4}\right)$ (B) $\left(\frac{7}{8} \times \frac{4}{4}\right) - \left(\frac{5}{6} \times \frac{3}{3}\right)$ (C) $\left(\frac{7}{8} \times \frac{5}{5}\right) - \left(\frac{5}{6} \times \frac{7}{7}\right)$
(D) $\left(\frac{7}{8} \times \frac{6}{6}\right) - \left(\frac{5}{6} \times \frac{6}{6}\right)$ (E) $\left(\frac{7}{8} \times \frac{7}{7}\right) - \left(\frac{5}{6} \times \frac{5}{5}\right)$

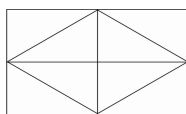
Q.2. Meena made a triangle by cutting the corner of a sheet of paper. One of the angles is 45° . What is the measure of the third angle of Meena's triangle?

- (A) 30° (B) 45° (C) 55° (D) 60° (E) 90°



Q.3. What is the total number of triangles in the following figure?

- (A) 4 (B) 8 (C) 10 (D) 12 (E) 14



Q.4. Which of the following depicts 433,000 in its scientific notation correctly?

- (A) 4.33×10^3 (B) 4.33×10^4 (C) 4.33×10^5
(D) 4.33×10^6 (E) 4.33×10^7

- Q.5. If * means square the first number and add the second then value of $5*6$ is equal to:
(A) 30 (B) 29 (C) 31 (D) 25 (E) 11

SECTION-B

- Q.6. A bird flew at 10 km per hour for 3 hours and then at 8 km per hour for 2 hours. How far did the bird fly in all?

(A) 18 km (B) 70 km (C) 50 km (D) 69 km (E) 46 km

- Q.7. $4\frac{3}{4} - 2\frac{1}{2}$ is equal to:

(A) $1\frac{3}{4}$ (B) $1\frac{5}{4}$ (C) $2\frac{5}{4}$ (D) $2\frac{1}{4}$ (E) $3\frac{2}{4}$

- Q.8. If 5% of a number is 15, then what is the value of 30% of that number?

(A) 80 (B) 87 (C) 90 (D) 93 (E) 83

- Q.9. If the average of three numbers is 13, then what is the sum of these numbers?

(A) 30 (B) 37 (C) 35 (D) 32 (E) 39

- Q.10. If $A : B = 5 : 7$ and $B : C = 9 : 11$, then what is the value of $A : C$?

(A) 45:77 (B) 5:11 (C) 9:7 (D) 9:5 (E) 11:7

- Q.11. The circumference of a circle is 352m. What is the value of its radius?

(A) 56 m (B) 48 m (C) 52 m (D) 62 m (E) 60 m

- Q.12. Find the missing numbers in the following series:

2, 9, 28, ____, ____, 217

(A) 60, 120 (B) 30, 40 (C) 35, 43 (D) 65, 126 (E) 56, 120

- Q.13. If a person is standing on the sixth number in a queue from both the ends, then the total number of persons in the queue is:

(A) 9 (B) 10 (C) 11 (D) 12 (E) 13

Q.14. $\left[27^{-\frac{2}{3}}\right]^{\frac{1}{2}}$ is equal to:

- (A) $\frac{27}{64}$ (B) $\frac{1}{3}$ (C) $\frac{1}{9}$ (D) $\frac{1}{27}$ (E) $\frac{4}{3}$

Q.15. If $36 - y = 3 \times 4 - 2 \times 5$, then the value of y is:

- (A) 30 (B) 34 (C) 40 (D) 43 (E) 44

SECTION - C

Q.16. A and B together can do a work in 28 days. They finished the work with the help of C in 21 days. In how many days can C can do the work alone?

- (A) 80 days (B) 83 days (C) 90 days (D) 84 days (E) 45 days

Q.17. Area of four walls of a room is 220 sq meter. If its length and breadth are 12 m and 10 m respectively, then what is the height of the room?

- (A) 10 m (B) 12 m (C) 15 m (D) 14 m (E) 5 m

Q.18. In a parking lot, 1 out of every 8 cars is blue. What percent of the cars in this lot are blue?

- (A) 1.25% (B) 7% (C) 9% (D) 12.5% (E) 125%

Q.19. The value of $\frac{40 \times 0.4 \times 0.04}{4 + 4 \div 4}$ is:

- (A) 1.28 (B) 0.128 (C) 12.8 (D) 128 (E) 1280

Q.20. What will be LCM of the fractions given? $\frac{25}{14}, \frac{15}{8}, \frac{40}{27}$

- (A) 200 (B) 400 (C) 600 (D) 300 (E) 500

NOTE: The **answer key** of this question paper will be available on the School's blog www.crpfsrohini.blogspot.com on November 9, 2010 after 6 pm. The **Result** will be declared on 16 November and will also be available on the school's blog.