



DELHI PUBLIC SCHOOL, RANCHI

Annual Examination (2016-17)

Class: - VIII
Time- 3Hrs.

Subject: - Mathematics
Maximum Marks: - 90

General Instruction :-

- All questions are compulsory.
- The question paper consists of 31 Questions divided into 4 sections A,B,C and D. **Section A** comprises of 4 Questions of **1 Mark** each . **Section B** comprises of 6 Questions of **2 Marks** each. **Section C** comprises of 10 Questions of **3 Marks** each and **Section D** comprises of 11 Questions of **4 Marks** each.

SECTION - A

- Solve : $5x - 2(2x - 7) = 2(3x - 1) + \frac{7}{2}$
- If you have a spinning wheel with 3 green sectors , 1 blue sector and 1 red sector. What is the probability of getting a green sector ? What is the probability of getting a Non - blue sector ?
- The area of a trapezium is 26 cm^2 . Find the altitude of the trapezium if the sum of lengths of bases is 6.5 cm.
- Will the points (2,8), (7,8) and (12,8) lie on a line ? Give reason.

SECTION - B

- Find the 10 rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$.
- The diagonals of a rhombus are perpendicular bisectors of one another . Justify.
- If $31x5$ is a multiple of 3, where x is a digit , what might be the value of x ?
- A tradesman allows a discount of 15% on the written price. How much above the cost price must he mark his goods to make a profit of 19% ?
- Can a polyhedron have 10 faces, 20 edges and 15 vertices ?
- Factorize :- $x^2 + 5x - 36$

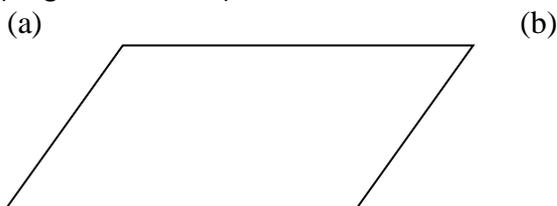
SECTION - C

11. Use appropriate property to find :-

(a) $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$

(b) $\frac{3}{7} + \left(\frac{-6}{11}\right) + \left(\frac{-8}{21}\right) + \left(\frac{5}{22}\right)$

12. Deveshi has a total of Rs. 590 as currency notes in the denominations of Rs 50 , Rs 20 and Rs 10. The ratio of Rs 50 notes and Rs 20 notes is 3:5. If she has a total of 25 notes, how many notes of each denomination she has?
13. The following figures GUNS and RUNS are parallelograms. Find x and y .
(lengths are in cms)



26. Simplify:

(a) $\frac{25 \times a^{-4}}{5^{-3} \times 10 \times a^{-8}}$ (b) $\frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$

27. In 15 days, the earth picks up 1.2×10^8 kg of dust from the atmosphere. In how many days it will pick up 4.8×10^8 kg of dust ?

28. 1000 soldiers in a fort had enough food for 20 days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred ?

29. Factorize:

(a) $10ab + 4a + 5b + 2$
(b) $25a^2 - 4b^2 + 28bc - 49c^2$

30. Divide:

(a) $a^4 - b^4$ by $a - b$
(b) $44(x^4 - 5x^3 - 24x^2)$ by $11x(x-8)$

31. The perimeter P and the sides of the square are connected by the relation $P = 4S$. Draw the graph of this relation on the graph paper.