Std : VII   Marks: (80)
Date: 7/10/16   Time: 1 ½ hr

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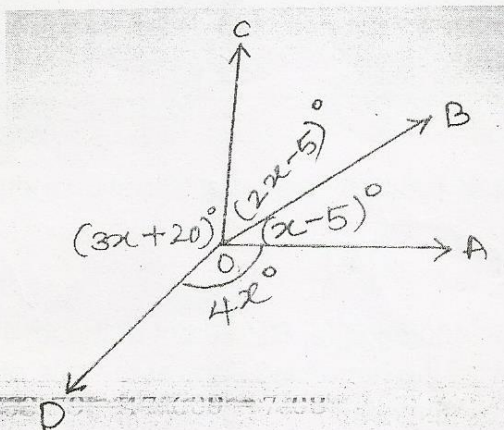
Q1a.   Solve: $6\frac{1}{5} \div 3\frac{1}{10} \, of \, 2\frac{1}{2} \div \frac{1}{4}$ (3)

b.   Simplify: $74{.}8 + 68{.}79 - 47{.}609 - 7{.}08$ (2)

c.   A can do a piece of work in 20 days and B can do it in 30 days. If both
       of them work at it together how long will they take to finish the work?   (3)

d.   Divide: $3x^2 - 7x + 2$ by $x - 2$ (2)

Q2a.   In the given figure find the value of x and measure of ∠COD   (3)

b.   A man loses 20% of his money. After spending 25% of the remainder,
       he has Rs 480 left. How much money did he originally have?   (3)

c.   Find the square root of 15876 by division method.   (2)

d.   Evaluate: $(105)^2$ using $(a + b)^2$ (2)

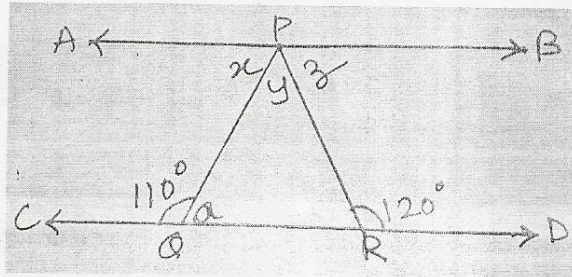Q3a.   By selling an article for Rs 270, a loss of 10% is suffered. Find:

   i.   The cost price of the article
   ii.   The price at which the article must be sold in order to gain 12%   (4)

b.   The salary of an employee was increased by 9%. If his present salary is
     Rs 8502, what was the salary before increment?   (4)

c.   Solve: $\sqrt{\dfrac{3^6 \times 7^2}{2^4}}$ (2)

Q4a.   Multiply: $(3a + 2)(2a^2 - 5a + 6)$ (3)

b. If 10 men can construct a house in 156 days, how many men are required to construct it in 20 days? (3)

c. Solve: $34 \cdot 26 - 15 \cdot 029 + 3 \cdot 04$ (2)

d. Find the square root of 390625 by prime factorisation method. (2)

Q5a. A cassette player is offered at a discount of 20%. If the customer pays Rs 2160 to buy it, find its marked price. (3)

b. Find the number which when decreased by 12% becomes 1760. (3)

c. In the given figure AB || CD. Find the values of x, y, z ,a. (4)

Q6a. Find the cube root of 10648 by prime factorisation method. (3)

b. Find the square of $\left(\frac{2}{3}x - \frac{1}{2}y\right)$ (3)

c. A shopkeeper buys 100 eggs for Rs250 out of these, 10 eggs were found to be broken. He sold the remaining eggs at the rate of Rs40 per dozen. Find his gain or loss percent. (4)

Q7a. An old motorbike is marked at Rs 40000. The dealer gives 10% discount on Rs 10000 and 5% discount on remaining Rs30000. Find the total discount and the selling price of the motorbike. (4)

b. Ravi withdrew Rs80950 from his bank account. He gave 54% of the money to his wife, 20% to his daughter and the rest he gave to his son. Find the amount that each one received. (4)

c. Find the value of **58 x 62** using the special product. (2)

Q8a. Construct $\angle PQR\ 135^0$ using ruler and compass. (3)

b. A and B working together can do a piece of work in 12 days. B alone can do the same work in 20 days .How long will A take to do the same work? (3)

c. Express $0 \cdot 21\overline{56}$ as a fraction. (4)

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