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Marks: 20

STD: VII

TT - MATHS

Time: 30 min

I. Answer the following in one word:

1. 81 2. 4^2b^2 ($4b$)² 3. 5^3 4. Yes 5. (-216)

II. Answer the following:

6. $\frac{5 \times 3^4 \times 5^2}{9} = \frac{5^{1+2} \times 3^4}{3^2}$
 $= 5^3 \times 3^{4-2}$
 $= 5^3 \times 3^2$
 $= 1125$ Ans

7. $[(2^3)^2 \div 2] \times 5^6$
 $[2^6 \div 2^1] \times 5^6 = 2^{6-1} \times 5^6$
 $= 2^5 \times 5^6$

8.
$$\begin{array}{r} 5 \overline{)250} \\ \underline{50} \\ 5 \overline{)10} \\ \underline{10} \\ 2 \overline{)2} \\ \underline{2} \\ 1 \end{array} \qquad \begin{array}{r} 2 \overline{)32} \\ \underline{16} \\ 2 \overline{)8} \\ \underline{4} \\ 2 \overline{)4} \\ \underline{2} \\ 1 \end{array}$$

9. $250 \times 3^2 = 5^3 \times 2 \times 2^5 = 5^3 \times 2^6$
 $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$
 $5^2 = 5 \times 5 = 25$
 $2^5 > 5^2$

10. $6^{10-2} \times 6^5$
 $6^8 \times 6^5 = 6^{8+5}$
 $= 6^{13}$