PRISM WORLD

Std.: 8 (English) **Mathematics** **Marks: 20**

Date: **Time: 1 hour**

Chapter: 6

Q.1 Choose the correct alternative. **(3)**

1) $p^3 - 729$

a. $(p - 9)(p^2 + 9p + 81)$ b. $(p - 9)(p^2 - 9p + 81)$

c. $(p + 9)(p^2 + 9p + 81)$ d. $(p + 9)(p^2 - 9p + 81)$

2) $(3a^3 - 6a^2 - 24a) \div (a - 4)(a + 2)$

a. 3a b. 3a2 c. (a - 4) d. (a + 2)

3)

$1 + \frac{p^3}{216}$

a. $\left(1 - \frac{p}{6}\right)\left(1 + \frac{p}{6} + \frac{p^2}{36}\right)$ b. $\left(1 + \frac{p}{6}\right)\left(1 + \frac{p}{6} + \frac{p^2}{36}\right)$

c. $\left(1 + \frac{p}{6}\right)\left(1 - \frac{p}{6} + \frac{p^2}{36}\right)$ d. $\left(1 - \frac{p}{6}\right)\left(1 - \frac{p}{6} - \frac{p^2}{36}\right)$

Q.2 Solve the following questions. (Any three) **(9)**

1) Factorize
$x^3 + 343y^3$

2) Factorize
$343a^3 - 1331b^3$

3) Simplify

$\frac{x^2 - 2x - 35}{x^2 - 49}$

4) $(3xy - 2ab)^3 - (3xy + 2ab)^3$

Q.3 Answer the following (Any two) **(8)**

1)

$\frac{3x^2 - x - 2}{x^2 - 7x + 12} \div \frac{3x^2 - 7x - 6}{x^2 - 4}$

2) Simplify

$\frac{3a^2 + 14a + 15}{a^2 + 27a + 72} \times \frac{a + 24}{9a^2 - 25}$

3)

$\frac{x^2 - 5x - 24}{(x + 3)(x + 8)} \times \frac{x^2 - 64}{(x - 8)^2}$