PRISM WORLD

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

Date: | Time: 1 hour

Chapter: 5

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

1) $\left(a + \frac{1}{a}\right)^3$ = ...

a. $a^3 + \frac{1}{a^3} + 3\left(a - \frac{1}{a}\right)$

b. $a^3 + 3a + \frac{3}{a} + \frac{1}{a^3}$

c. $a^3 + \frac{1}{a^3} + 3\left(a + \frac{1}{a}\right)$

d. both b and c

2) $(a - b)^3$ = ...

a. $a^3 - b^3 - 3ab\,(a - b)$

b. $a^3 - 3a^2b + 3ab^2 - b^3$

c. Both a and b

d. None of these

3) $(p + q + r)^2$ = ...

a. $p^2 + q^2 + r^2 + 2\,(pq + qr + pr)$

b. $p^2 + q^2 + r^2 + 2pq + 2qr + 2pr$

c. Both a and b

d. None of these

B) Answer the following questions **(3)**

1) Expand
$(13 + x)\,(13 - x)$

2) Expand
$(p + 8)\,(p - 3)$

3) Expand
$(m - 4)\,(m + 6)$

Q.2 Attempt the following questions. (Any two) **(4)**

1)
Expand : $\left(P + \frac{3}{5}\right)\left(P + \frac{7}{5}\right)$

2)
Expand : $(q - 5)\,(q + 6)$

3) Expand : $(9 + x)^3$

Q.3 Solve the following questions. (Any two) **(6)**

1) Expand : $(p + q + r)^2 - (p - q - r)^2$

2) Expand

$$\left(\frac{x}{3} - \frac{3}{x}\right)^3$$

3) Expand
$(2m - 5)^3$

4) Expand
$(2p + q + 5)^2$

Q.4 Answer the following (Any one) **(4)**

1) Simplify
$(7a - 6b + 5c)^2 + (7a + 6b - 5c)^2$

2) Expand : $(7p - 4q)^3 + (7p + 4q)^3$