

## Class Test on Factorisation

F.M : 12

Std: VIII

Time : 35 mins

Choose the correct option:

(1×2=2)

- On dividing  $(2x - 8x^3)$  by  $(1+2x)$ , the quotient is-  
(a)  $2x - 1$       (b)  $2x (2x - 1)$       (c)  $1 - 2x$       (d)  $2x (1 - 2x)$
- Assertion(A):** One factor of  $(9-12x+4x^2-25y^2-10yz-z^2)$  is  $(3-2x+5y-z)$ .

**Reason (R):**  $a^2-b^2=(a+b)(a-b)$  and the factorisation is defined as expressing or decomposing a number or an algebraic expression as a product of its prime factors or irreducible factors .

- Both A and R are true and R is the correct explanation of A
  - Both A and R are true but R is not the correct explanation of A
  - A is true but R is false
  - A is false but R is true
- Case Study:**  
The area of the base of a cylinder is  $\pi(9a^2-24a + 16)$  cm<sup>2</sup> and the volume of that cylinder is  $\pi (9a^2-16)(3a-4)$  cm<sup>3</sup>.

Based on the above information, answer the following questions:

- Find the radius of the base of the cylinder. (2)
  - Find the height of the cylinder. (2)
- Factorise:  $y^2-17y+60$  (2)
  - Simplify :  $\frac{(3x^2+24x+36)(x+4)}{3(x^2+6x+8)}$  (4)

