BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA

CLASS: VIII (2023-2024)

SUBJECT: MATHEMATICS (041)

CHAPTER: ALGEBRAIC EXPRESSIONS AND IDENTITIES

ASSIGNMENT

MCQ

Q.1 If x = 3 and y = 2, then the value of $(x - y)(x^2 + xy + y^2)$ is

a) 31 b) 19 c) 1 d) 25

Q.2 $(x + 5)(x - 3) = ?$

a) $x^2 + 5x - 15$ b) $x^2 - 3x - 15$

c) $x^2 + 2x + 15$ d) $x^2 + 2x - 15$

Q.3 $\frac{(7.95 \times 7.95) - (2.05 \times 2.05)}{(7.95 - 2.05)} =$

a) 7.95 b) 5 c) 10 d) 8

Assertion Reasoning

Q.4 Assertion (A) –The coefficient in the term 20xyz is 20

Reasons (R) –A coefficient is a number multiplied by a variable

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

Subjective Questions

Q.5 If x + y = 15, xy = 16, find the value of $x^2 + y^2$.

Q.6 Evaluate by using suitable identity (8.3 x 7.7)

Q.7 Find the product of $(x^2 + 1)(x - 1)(x + 1)(x^4 + 1)$

Case Study

Q.8 National Association for the Blind (NAB) aimed to empower and well-inform visually challenged population of our country, thus enabling them to lead a life of dignity and productivity. Raman donated Rs. $(x + y)$ to NAB. Total $(x^2 – y^2)$ students donated Rs. $(x – y)$ each for the help of blind people. Based on the above information answer the following questions:

i) What is the total amount donated by all students?

ii) If Raman donated Rs. $(x + y)$ and Sohan donated Rs. $(3x – 4y)$, then what is the total amount donated by them?

iii) If x = Rs. 5 and y = Rs. -3, then what is the total amount donated by all students?