GIRLS' HIGH SCHOOL & COLLEGE

SESSION: 2020-21

CLASS-7 (A, B, C, D, E & F)

SUBJECT : MATHS

ASSIGNMENT- 01

CHAPTER- FUNDAMENTAL CONCEPTS OF ALGEBRA

Instructions for Parents –

The parents to ensure that their ward watches the video instructions for this assignment by clicking on the given links

(i) https://youtu.be/sSwyfHCKUKU
(ii) https://youtu.be/fVjfTOWR414

She should revise the lesson given in the book and then work on the assignment. The completed assignment to be downloaded and filed/ pasted in the subject file/ copy and kept ready for submission. The day date and procedure of submission shall be notified later.

SOLVE THE FOLLOWING QUESTIONS:-

1. For each expression, given below state whether it is monomial, binomial or trinomial.

   i. $2x \div 15$
   ii. $ay + 9$
   iii. $3x \times 5x^2$
   iv. $5 + 2a - 3b$
   v. $3p \times q \div z$

2. Write the coefficient of:-

   i. ax in -3axy
   ii. z^2 in p^2yz^2
   iii. mn in –mn
   iv. 15 in -15axy
   v. 4y in 4xyz

3. Write the degree of each of the following polynomials:-

   i. $3y^2 - x^2 y^2 + 4x$
   ii. $3x - 15$
   iii. $p^3 q^2 - 6p^2 q^5 + p^4 q$
   iv. $7 - 3x^2y + y^2$
   v. $-8mn^6 + 5m^3n$

4. Add the following:-

i. -9x,3x and 4x
ii. 18pq, -15pq and 3pq
iii. -3a +2b and 3a +b
iv. 4+x, 5-2x and 6x
v. 3a + 5b +2c, 2a +3b –c and a+b+c

5. Subtract:-

i. 4x from 8x
ii. -5a-2b from b+6c
iii. –xy + yz - xz from xy- yz +xz
iv. $2x^2$-7xy –y^2 from $3x^2$ – 5xy + $3y^2$
v. $6m^3$ + 1 from $3m^3$ + 4

6. Multiply:-

i. $4x^3$, $2x^3$y and 5
ii. $4x^2$+8x+1 and $5x^3$
iii. (3c - 2a) and (5c – 6a)
iv. (4a + 5b) and (3a -7b)
v. (2x + 3y), (x +$5y^2$) and ($7x^3$ - 2y)

7. Divide:-

i. $3x^3y + 6x^2 y + 18xy^2$ by 3xy
ii. $4x^3$– $3x^2$y-$7xy^2$ by x
iii. $4a^2$ +4a +1 by 2a +1
iv. $20a^2$+ 16 – 8a by -4
v. $8a^2$ + 4a – 60 by 2a - 5

8. Simplify:-

i. 2x-(x + 2y -z)
ii. 8(2a+3b-c)-10(a+2b+3c)
iii. 6a – 3 (a+b-2)
iv. 3x+[4x-(6x-3)]
v. 5b-{6a+(8 – b - a)}

9. Find:-

i. x/2 + x/4
ii. a/10 – 2a/5

10. The sides of a triangle are 6a + 9b, 5a + 3b and 8a – 4b. Find its perimeter. (Hint: perimeter = sum of sides)