Nalanda Collage – Colombo 10

Grade 09 – Third Term

Unit Test 25

Mathematics

Angles of a Polygon

$1\frac{1}{4}$ hours

Part I

1. Fill in the blanks.

    (i)   There are ……..……. sides in a Hexagon.

    (ii)   In every polygon number of …..……….. and number of ……………….. are equal.

    (iii)   In every regular polygon all the …..……….. are ………..…….. in magnitude.

    (iv)   In a regular Hexagon magnitude of an interior angle is ……………………..

2. Find the sum of the interior angles which has 13 sides.

3. Find the sum of the interior angles which has 15 sides.

4. Find the magnitude of an exterior angle of a regular Pentagon.

5. Find the sum of the exterior angles of a regular Decagon.

Part II

1. In a Heptagon, interior angles are $120°, 150°118°, 132°$ $and 110°$. Other two angles are equal in magnitude. Find the magnitude of unknown interior angle.

2. In a quadrilateral, ratio of interior angles are 1:2:2:3. Find the magnitudes of each interior angle.

3. (i)   Find the sum of interior angles of a regular Octagon.
    (i)   Find the magnitude of an interior angle.
    (ii)   Calculate the magnitude of an exterior angle.

4. In a Dodecagon all the exterior angles are equal in magnitude.

   (i) Find the magnitude of an exterior angle.
   (ii) Find the magnitude of an interior angle.
   (iii) Find the sum of the interior angles.

5. Find the number of sides of a regular polygon when an exterior angle is 20°.

   (i) Find the magnitude of an interior angle.
   (ii) Find the sum of the interior angles.