**UNIT 7 – SURFACE AREA AND VOLUME – ANSWERS**

**ASSIGNMENT 1 – CALCULATING AREA OF 2 D**

1) 17.67 cm2 2) 14102.6 m2 3) 450 mm2 4) 187 in2

5) 75.84 m2 6) 28.09 ft2 7) 19.845 cm 8) 13.475 mm2

**ASSIGNMENT 2 – CALCULATING AREA OF COMPOSITE 2D FIGURES**

2) 55.48 m2 3a) 128.5 ft2 b) 26.18 cm2 c) 300.5 cm2

**ASSIGNMENT 3 – PRISMS**

 **Prism Shape of base Right or oblique Shape of lateral faces NAME**

1) rectangle right rectangle right rectangular prism

2) triangle right rectangle right triangular prism

3) trapezoid oblique parallelogram oblique trapezoidal prism

4) octagon oblique parallelogram oblique octagonal prism

5) pentagon right rectangle right pentagonal prism

6) rectangle oblique parallelogram oblique rectangular prism

**ASSIGNMENT 4 – NETS OF PRISMS**

2) A is correct. B has only 7 sides!

**ASSIGNMENT 5 –SURFACE AREA OF PRISMS USING NETS**

1) 1810 cm2 2) 480 in2

**ASSIGNMENT 6 –surface area of irregular figures**

1) 572 cm2 2) 1672 m2

**ASSIGNMENT 7 – surface area of culinders and spheres**

1) 8482.3 cm2 2) 1030.4 cm2 3) 725.8 m2 4) 23.1 m 5) 5067.75 mm2

**ASSIGNMENT 8 – surface area of pyramids and cones**

1) 1960 cm2 2) s=15 cm SA=864cm2 3) s=13.25 m h=10.6 m

4) 7225.7 cm2 5) 16864.1 mm2 6) s=21.2 m sa=1146.9 m2

**ASSIGNMENT 9 – surface area of composite fugures**

1) 561.1 cm2 2) 933.0 cm2 3) 8.3 m2

**ASSIGNMENT 11 – VOLUME AND CAPACITY OF PRIsms**

1a) V=4342.8cm3 C=4.3 L b) V = 43.9 ft3 C=328.4 gal. (US) 2) 3.5 cm

3) 10 mm 4) 60 trips

**ASSIGNMENT 12 - volume and capacity of cylinders and cones**

1) v= 103 059.9 cm3 C= 103.1 L 2) 32 cm 3) 379.6 in3

4) 25 mm 5) cylinder = 327.9 cm3 cone = 411.9 cm3 Cone has greater volume

**ASSIGNMENT 13 – volume and capacity of pyrqmids and spheres**

1a) 7309.2 mm3 b) 806.4 mm3 2) 3584 in3 3) V=65450 m3 C=65450000 L

4) V= 11994 ft3 C=89715.12 gal (US) 5) ball V= 179.6 cm3 container V= 808.2 cm3

**ASSIGNMENT 14 – volume of composite figures**

1) 197.9 m3 2) 2.75 m3 3) 2544.7 cm3 4) 247.7 mm3

5) 2827.5 cm3 6) 5632.3 mm3