ASSIGNMENT 1

* Pg. 17- No.1

a.1SECJ : Illegal because it begin with a digit.

b.School\_Computing : Legal

c.year 2019 : Illegal because it has space between words.

d.$650 : Illegal because it begin with symbols.

e.\_radius : Legal

f.return : Illegal because it use one of the C++ keywords.

g.#length : Illegal because it begin with symbols.

h.Float : Legal

i.height3 : Legal

* Page 19- No 5, 6, 7, 8

 **No .5**

 a.int id =109;

 id = 109;

 Size of memory :2 bytes

 b.char symbol = ‘$’;

 symbol =‘$’;

Size of memory :1 bytes

 c.float average = 4.5;

 average = 4.5;

 Size of memory :4 bytes

 d.long population =4567890;

 population =4567890;

 Size of memory :4 bytes

 e.double volume = 6788.987;

 volume = 6788.987;

 Size of memory :8 bytes

 **No.6**

 a.float number 12;(Incorrect,because the number is whole number and does not

 have equal sign)

 Correct variable declaration:

 int number=12;

 b.char letter=”b”;(Incorrect,because it use double quotes not single quotes)

 Correct variable declaration:

 string letter=”b”;

 c.int mark=99.9; (Incorrect,because the number is in decimal)

 Correct variable declaration:

 float mark=99.9;

 d.long snum=888888.88; (Incorrect,because the number is in decimal)

 Correct variable declaration:

 double snum=888888.88;

 e.double w1=10,w2=2.55,w4=940;(Correct)

**No.8**

 a. m =r;

 Not valid,because m=2 and r=28.5,hence m ≠ r.

 b. m = n-2.3;

Not valid,because n=3,m=2, 3-2.3 ≠ m.

 c. s + 2 = r;

 Not valid,because s=5.0, r =28.5 , hence 5+2 ≠ r.

 d. m =12/s;

 Valid.

 e. r =n/s;

 Not valid,because n =3,s =5.0,r =28.5,hence 3/5.0 ≠ r.

 f. s = m+1;

 Not valid,because m =2,s =5.0,hence 2+1 ≠ s.

 g. m = s % n;

 Valid.

* Page 20- No 9,10,11

 **No.9**

 a. int x;

b. float y;

c. char z;

d. int x;

 x = 4;

e. y = x\*5.0;

f. y = y/3.5;

g. char z = ‘F’;

 z = F;

 **No.10**

a. $\sqrt{height^{2}+length^{2}}$

 pow(height,2) + pow(length,2);

b. $\frac{1}{1+X}$

 1/(1+pow(x,2));

c.$x^{2}+3x+2$

 pow(x,2)+(3\*x)+2;

d.$ πr^{2}$

 PI\*pow(r,2);

 **No.11**

 a. (24-6) / (4+2)

 =18 / 6

 = 3

 b. 18-13 / 3.0

 = 18 – 4.33

 = 13.67

 c. 12/3-3 % 2.5

 = Error, because modulus operation only consists of whole number only .

 d. 24-6 / 4+2

 =24 – 1.5+2

 = 24.5

 **No.12**

 a. x = 8\* (2+3) / (4-2);

|  |
| --- |
| \*  |
| 3 |

|  |
| --- |
| +  |
| 1 |

|  |
| --- |
| /  |
| 4 |

|  |
| --- |
| -  |
| 2 |

 x = 8 2 3 4 2;

x = 8 \* 5 / (4-2)

 = 8 \* 5 / 2

 = 40 / 2

 = 20

b. x = (12+4) / 4+30 / 3-3

|  |
| --- |
| + |
| 1 |

|  |
| --- |
| / |
| 2 |

|  |
| --- |
| + |
| 4 |

|  |
| --- |
| / |
| 3 |

|  |
| --- |
| - |
| 5 |

 x = 12 4 4 30 3 3;

 x = 16/4+30/3-3

 x= 4 + 30/3 -3

 x = 4 + 10 -3

 x=11

c . int a =3, b =5, c = a;

 x = a + b \*c -- % ++b;

|  |
| --- |
| + |
| 5 |

|  |
| --- |
| \* |
| 3 |

|  |
| --- |
| -- |
| 2 |

|  |
| --- |
| % |
|  4 |

|  |
| --- |
| ++ |
| 1 |

 x = a b c b;

 x= 3 + 5 \* 4 - - % 6

 x = 3 + 5 \* 3 % 6

 x = 3 + 15 % 6

 x = 3+3

 x = 6

 **No.13**

a. z = a/b

 a=4,b=5,

 hence z = 4/5

 z = 0.8

b. z = static\_cast<double>(a)/(b);

 a=4,b=5,

 hence z = 4/5

 z = 0.8

c. z = static\_cast<double>(a/b);

 a=4,b=5,

 hence z = 4/5

 z = 0.8

d. c = static\_cast<int>(x)/a;

 x=8.486, a=4,

 hence c = 8.486/4

 c = 2

e. c = static\_cast<int>(x/a);

 x=8.486, a=4,

 hence c = 8.486/4

 c = 2

f. c = static\_cast<int>(x)/static\_cast<int>(y);

 x = 8,y=7,

 hence c = 8/7

 c = 1

 **No.14**

a . k += j;

 k = k+j

 k = 3+2

 k=5

b. j \*= 2;

 j = j\*2

 j = 2\*2

 j = 4

c. m /= j+3;

 m = m / ( j+3)

 m = 4/ (2+3)

 m = 0

d. m -= j\*k;

 m = m – (j\*k)

 m = 4 – ( 2\*3)

 m = -2