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.

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

b.

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

c.

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

d.

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