



INDIAN SCHOOL DARSAIT DEPARTMENT OF ICT



Subject: Informatics Practices (065)

Topic: Data Handling

Worksheet No. : 5

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Date: _____

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1. What are data types? How are they important? Explain.
2. How many integer types are supported by Python? Name them.
3. What are immutable and mutable types? List immutable and mutable types of Python.
4. What is the difference between implicit type conversion (Coercion/ Type Promotion) and explicit type conversion (Type Casting)?
5. What are operators? Explain various operators in Python with suitable examples.
6. What is an expression? How many different types of expressions can you have in Python?
7. Explain the type casting issues?
8. What would be the output of the following code? Explain reasons.

```
a = 3 + 5/8
b = int(3 + 5/8)
c = 3 + float(5/8)
d = 3 + float(5) /8
e = 3 + 5.0/8
f = int(3 + 5/8.0)
print(a, b, c, d, e, f)
```

9. How are augmented assignment operators useful?
10. Write the following expressions in Python?

a) $\frac{1}{3}b^2h$

b) $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

c) $(x-h)^2 + (y-k)^2 = r^2$

d) $a^n \times a^m = a^{n+m}$

11. What will be the output of the following Python code?

```
a = 12
b = 7.4
c = 1
a - = b
print (a, b)
a * = 2 + c
print (a)
b + = a* c
print (b)
```

12. What will be the output produced by following code? State reason.

```
a = 5 - 4 - 3
b = 3**2**3
print(a)
print(b)
```