



COMSATS University, Islamabad

# Assignment # 3

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Course

*Discrete Structures ()*

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## Solutions

### Q1.

$$a_0 = 2 \times (-3)^0 + 5^0 = 3$$

$$a_0 = 2 \times (-3)^1 + 5^1 = -1$$

$$a_0 = 2 \times (-3)^4 + 5^4 = 571$$

$$a_0 = 2 \times (-3)^5 + 5^5 = 3071$$

### Q3.

**a. –**

$$1. 2^0 + 1 = 2$$

$$2. 2^1 + 1 = 3$$

$$3. 2^2 + 1 = 5$$

$$4. 2^3 + 1 = 9$$

**b. –**

$$1. (0 + 1)^{0+1} = 1$$

$$2. (1 + 1)^{1+1} = 4$$

$$3. (2 + 1)^{2+1} = 27$$

$$4. (3 + 1)^{3+1} = 256$$

**c. –**

$$1. 0/2 = 0$$

$$2. 1/2 = 0.5$$

$$3. 2/2 = 1$$

$$4. 3/2 = 1.5$$

**d. –**

$$1. 0/2 + 0/2 = 0$$

$$2. 1/2 + 1/2 = 1$$

$$3. 2/2 + 2/2 = 2$$

$$4. 3/2 + 3/2 = 3$$

**Q5. (a).** 2, 5, 8, 11, 14, 17, 20, 23, 26, 29

**Q5. (b).** 1, 4, 7, 10, 13, 16, 19, 22, 25, 28