



**Assignment # 1**  
**CS301 – COAL**  
**Fall 2021**

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**Submission Guidelines:**

**Please read instructions carefully**

1. **Solve Assignment on A4 papers**
  2. **Scan your Assignment (use CamScanner app)**
  3. **Submit in pdf form on Google Classroom**
  4. ***plagiarism is strictly prohibited***
  5. **Assignment name should be your Section-Roll No.**
  6. **Attempt all questions**
  7. **Late submission is strictly not allowed**
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### Question No 1:

Why we prefer developing in high level language over low level language and write the steps of conversion from HL to LL.

### Question No 2:

Provide a comparison between High level language and assembly language with respect different Type of Applications.

### Question No 3:

How many machine levels have there and briefly described them.

### Question No 4:

Convert (86T1) Hexadecimal to Binary and then convert that Binary to Decimal.

### Question No 5:

a. Finds Two's compliment of these unsigned the numbers

1. 26
2. 99
3. 181

b. Convert (consider signed numbers)

1. 10101001 (binary to Decimal)
2. -85 (Decimal to Binary)
3. 8124 (Decimal to Hexadecimal)

### Question No 6:

Create truth table of  $(\neg X \wedge Y) \vee (Y \wedge \neg Z)$

### Question No 7:

Briefly explain memory hierarchy.

### Question No 8:

What is registers and the difference between special purpose registers and general-purpose register? Explain the segments in registers.

### Question no 9:

What is difference between Flag Segment and Multi-Segment Model?

### Question No 10:

Explain paging.