**BÁO CÁO THỰC HÀNH**

**LAB 3-4**

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**MSSV: 20521974**

**Hardware Resources**

|  |  |
| --- | --- |
| **Tên phần cứng** | **Thông số** |
| CPU | Intel core i5 8300H CPU @2.3GHz |
| RAM | 8GB |

**1**

**RSA Encryption**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Input  OS | 32 bytes | 33 bytes | 143 bytes | 286 bytes |
| Windows | 0.222801s | 0.120838s | 0.356534s | 0.156854s |
| Ubuntu | 0.3235s | 0.1805s | 0. 51211s | 0.42352s |

**2**

**RSA Decryption**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Input  OS | 32 bytes | 33 bytes | 143 bytes | 286 bytes |
| Windows | 0.0127494s | 0.0121317s | 0.0198455s | 0.0288372s |
| Ubuntu | 0.11295s | 0.03174s | 0.205s | 0.2305s |

**3**

**Sign**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Input  OS | 32 bytes | 33 bytes | 143 bytes | 286 bytes |
| Windows | 0.0031741s | 0.0030097s | 0.0031628s | 0.0029013s |
| Ubuntu | 0.0022056s | 0.0051075s | 0.0021144s | 0.0035036s |

**4**

**Verify**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Input  OS | 32 bytes | 33 bytes | 143 bytes | 286 bytes |
| Windows | 0.0070209s | 0.0041337s | 0.0042231s | 0.0041455s |
| Ubuntu | 0.0076332s | 0.0036653s | 0.0075221s | 0.005023s |