# TUGAS 3

**FORMAT INSTRUKSI 8086**



**Dosen Pengampu :**

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**MATA KULIAH ARSITEKTUR DAN ORGANISASI KOMPUTER**

**UNIVERSITAS PENDIDIKAN GANESHA**

**SINGARAJA**

**TA. 2022**

1. **PERMASALAHAN**

Ubahlah perintah-perintah dalam bahasa Assembly berikut ke dalam bentuk binary dan heksadesimal!

1. MOV AX, 25

2. MOV DX, 2Ah

3. ADD AX, DX

4. ADD AX, 250

5. PUSH AX

6. MOV DL, 36

7. ADD DL, 20h

8. ADD AL, DL

9. MOV CL, AL

10. MOV AL, [SI]

11. INC SI

12. INC DI

1. **PENYELESAIAN**
2. **MOV AX, 25**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 101000 0 1 00 011 001 |
| HEKSADESIMAL | A119h |

1. **MOV DX, 2Ah**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 101110 0 0 00 101 010 |
| HEKSADESIMAL | B82Ah |

1. **ADD AX, DX**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 000000 1 1 11 010 000 |
| HEKSADESIMAL | 03D0h |

1. **ADD AX, 250**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 000001 0 1 11 111 010 |
| HEKSADESIMAL | 05FAh |

1. **PUSH AX**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 111111 1 1 11 000 000 |
| HEKSADESIMAL | FFC0h |

1. **MOV DL, 36**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 110001 1 0 00 100 100 |
| HEKSADESIMAL | C624h |

1. **ADD DL, 20h**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 100000 0 0 11 100 000 |
| HEKSADESIMAL | 8020h |

1. **ADD AL, DL**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 000000 0 0 11 010 000 |
| HEKSADESIMAL | 00D0h |

1. **MOV CL, AL**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 101000 0 0 11 000 001 |
| HEKSADESIMAL | A0C1h |

1. **MOV AL, [SI]**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 100010 1 0 00 000 100 |
| HEKSADESIMAL | 8A04h |

1. **INC SI**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 111111 0 1 11 000 110 |
| HEKSADESIMAL | FEC6h |

1. **INC DI**

|  |  |
| --- | --- |
|  | **Opcode D W Mod Reg R/M** |
| BINER | 111111 0 1 11 000 111 |
| HEKSADESIMAL | FEC7h |