Akash Tadwai
Department of Engineering Science
Indian Institute of Technology Hyderabad
Email: es18btech11019@iith.ac.in

भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Assignment-II

Akash Tadwai

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1 README

- Download MARS from this link
- To open mars run **$ java -jar Mars45.jar**
- Open the required file from the file system with File → Open
- Assemble by f3 and run by f5 keys respectively.
- Compile C by $ gcc insertion_sort.c and run it by $ ./a.out

2 Tables

• **NOTE:** The Ascending Order of the array and Random order are only printed, Descending is just the Reverse of Ascending Order.

Insertion Sort C program					
	Original Array	**Ascending**	**Descending**	**RandomArray**	**Comparisions**
N=5,a=1,r=3	[1 3 9 27 81]	4	10	[81 9 1 27 3]	8
N=7,a=3,r=2	[3 6 12 24 48 96 192]	6	21	[6 48 3 24 12 96 192]	10
N=9,a=2,r=3	[2 6 18 54 162 486 1458 4374 13122]	8	36	[1458 486 2 6 162 13122 54 18 4374]	23

Table 1: **Insertion-Sort-C**

Insertion Sort MIPS program					
	Original Array	**Ascending**	**Descending**	**RandomArray**	**Comparisions**
N=4,a=2,r=5	[2 10 50 250]	3	6	[50 2 10 250]	4
N=6,a=4,r=3	[4 12 36 108 324 972]	5	15	[324 108 972 12 4 36]	13
N=10,a=5,r=5	[5 25 125 625 3125 15625 78125 390625 1953125 9765625]	9	45	[5 15625 25 125 78125 625 9765625 1953125 3125 390625]	20

Table 2: **Insertion-Sort-MIPS**

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