

#### IDMSOA01

– Selection sort algorithm is used to sort the array  $A=\{23,78,45,8,32,56\}$  in the ascending order. What are the items of A after 03 sort pass?

Select one:

- ☒ A={8,32,23,45,56,78}
- ☐ A={23,32,8,45,56,78}
- ☐ A={78,45,56,23,32,8}
- ☐ A={78,45,56,8,32,23}

#### IDMSOA02

– Insertion sort algorithm is used to sort the array  $A=\{23,78,45,8,32,56\}$  in the ascending order. What are the items of A after 03 sort pass?

Select one:

- ☐ A={45,56,78,32,23,8}
- ☐ A={45,56,78,23,32,8}
- ☐ A={8,23,45,56,32,78}
- ☒ A={8,23,45,78,32,56}

#### IDMSOA03

– Bubble sort algorithm is used to sort the array  $A=\{23,78,45,8,32,56\}$  in the ascending order. What are the items of A after 03 sort pass?

Select one:

- ☐ A={8,23,32,45,56,78}
- ☒ A={23,45,8,32,56,78}
- ☐ A={8,32,23,45,56,78}
- ☐ A={23,32,78,56,45,8}

#### IDMSOA06

– A sorting algorithm is used to sort the array  $A=\{83,8,12,72,71,65,5\}$ . The item of A in each sort pass are listed below. Which sorting algorithm is used?

Pass 1:	8	12	72	71	65	5	83
Pass 2:	8	12	71	65	5	72	83
Pass 3:	8	12	65	5	71	72	83
Pass 4:	8	12	5	65	71	72	83
Pass 5:	8	5	12	65	71	72	83
Pass 6:	5	8	12	65	71	72	83
Pass 7:	5	8	12	65	71	72	83

Select one:

- ☐ Selection sort
- ☐ Merge sort
- ☒ Bubble sort
- ☐ Insertion sort

### IDMSOA08

– Which array represents a Min-Heap?

Select one:

- ☒ A={2,5,9,22,10,13,12,8,50}
- ☐ A={50,22,13,12,10,8,9,5,2}
- ☐ A={2,5,9,8,10,13,12,22,50}
- ☐ A={9,5,2,8,10,13,12,22,50}

### IDMSOA09

– Which array represents a Max-Heap?

Select one:

- ☒ A={78,56,45,32,23,8,15}
- ☐ A={8,15,23,32,56,45,78}
- ☐ A={78,23,15,56,32,8,45}
- ☐ A={8,78,56,32,15,23,45}

### IDMSOA10

– An array A contains integer item in the range 0 to 5.  $A = \{1, 2, 5, 3, 2\}$ . Counting sort algorithm is used to sort A. What is the content of the counting array C before we used the information from C to create the sorted result array B?

Select one:

- ☐ C = {1, 1, 5, 5, 3, 2}.
- ☒ C = {1, 2, 5, 3, 2, 5}
- ☐ C = {0, 1, 2, 1, 0, 1}
- ☐ C = {0, 1, 3, 4, 4, 5}

#### IDMSOA11

– An array A contains integer items, each item has 03 digits.  $A = \{170, 145, 275, 900, 802\}$ . Radix sort algorithm is used to sort A. What is the content of A after the second sort pass?

Select one:

- ☐ A = {900, 802, 145, 170, 275}
- ☐ A = {145, 170, 275, 802, 900}
- ☒ A = {900, 802, 275, 170, 145}
- ☐ A = {145, 900, 170, 802, 275}.

#### IDMSOA12

– The Merge method in Merge sort algorithm is used to combine two sorted array  $A = \{3, 27, 38, 43\}$  and  $B = \{9, 10, 82\}$ . What is the result array C?

Select one:

- ☐ C = {3, 82, 9, 43, 10, 38, 27}
- ☒ C = {3, 27, 38, 43, 9, 10, 82}
- ☐ C = {3, 9, 10, 27, 38, 43, 82}
- ☐ C = {9, 10, 82, 3, 27, 38, 43}

#### IDMSOA13

– Heap sort algorithm is used to sort the array  $A = \{15, 19, 10, 7, 17, 16\}$  in the ascending order (using a Max-Heap). What is the content of A after calling BuildHeap() method?

Select one:

- ☐ A = {19, 17, 16, 7, 15, 10}
- ☒ A = {10, 15, 17, 19, 7, 16}
- ☐ A = {10, 7, 15, 19, 16, 17}



$A = \{19, 10, 17, 7, 15, 16\}$