

## Pembahasan UTS Struktur Data 2019/2020

2.

Procedure GeserPosisi(input BarisKe: integer, input BanyakMhs: integer, output KolomAwal: integer, output KolomAkhir: integer)

Kamus lokal

Algoritma

```
if (BanyakMhs < 20) then
    KolomAwal <- (20 - 2) / 2 + 1
    KolomAkhir <- KolomAwal - 1 + BanyakMhs
else
    KolomAwal <- 1
    KolomAkhir <- 20
```

3.

Procedure PushIjazah(input/output S: stackIjazah, input M: Mahasiswa)

Kamus lokal

i, j: integer

Algoritma

```
i traversal [0..S.top]
if (M.IPK >= S.wadah.IPK) then
    S.top <- S.top + 1

    j traversal [S.top...i+1]
    S.wadah[j] <- S.wadah[j - 1]

    S.wadah[i] <- M
else
    S.top <- S.top + 1
    S.wadah[S.top] <- M
```

4.

Procedure DequeWisudawan(input/output Q: queueMhs, output M: Mahasiswa)

Kamus Lokal

i: integer

Algoritma

```
if (isEmpty(Q)) then
    print "Queue Kosong"
else
    M <- Q.wadah[Q.head]
    Q.wadah[Q.head] <- Nil

    if (Q.head = Q.tail) then
        Q.head <- Nil
        Q.tail <- Nil
```

else

Q.head <- Q.head + 1

if  $((20 - Q.tail) - Q.head \geq 2)$  then

  i traversal [Q.head-1..Q.tail]

    Q.wadah[i] <- Q.wadah[i + 1]

  Q.wadah[Q.tail] <- Nil

  Q.head <- Q.head - 1

  Q.tail <- Q.tail - 1