Jawaban UTS Struktur Data 2020/2021

No
Date

2. a) Type Pasien = < NoAnggota : integer, Nama : string, JenKelamin : character,
tanggalahir : string, prioritas : integer >
Type TabPasien = < no : array [1...10] of integer, P : pasien >

b) A : Pasien , B : TabPasien
B.no [A.NoAnggota] {mengecek nomor anggota}
B.no [A.Nama] {mengecek nama anggota}
B.no [A.JenKelamin] {mengecek jenis kelamin}
B.no [A.tanggalahir] {mengecek tanggal lahir}
B.no [A.prioritas] {mengecek prioritas}

3. Procedure TumpukBerkas (input/output S1 : stack, input/output S2 : stack, input/output S3 : stack
input P : pasien)

Kamus Lokal

Algoritma
IF (S1.top ≠ 10 AND S2.top ≠ 10 AND S3.top ≠ 10) then
IF (P.prioritas = 1) then
S1.top ← S1.top + 1
S1.wadah [S1.top] ← P
IF else (P.prioritas = 2) then
S2.top ← S2.top + 1
S2.wadah [S2.top] ← P
else
S3.top ← S3.top + 1
S3.wadah [S3.top] ← P

Aplikasi
A1 : stack, A2 : stack, A3 : stack, P : pasien
{kondisi awal : A1.wadah [a], (A1.wadah [1]).Prioritas = 1
A2.wadah [b], (A2.wadah [1]).prioritas = 2
A3.wadah [c], (A3.wadah [1]).prioritas = 3}
TumpukBerkas (A1, A2, A3, < d, 1 >) {pasien d, prioritas 1}

{Kondisi Kini : A1 .wadah [a,d]
A2. wadah [b]
A3. wadah [c]

4. Procedure Mengantri (input/output Q : Queue , input P: Pasien)

Kamus lokal
i : integer

Algoritma
IF (Q.tail ≠ 5 AND Q.head ≠ 1) then
i ← Q.tail
while ((Q.wadah [i]). Prioritas > P. prioritas)
Q. wadah [i+1] ← Q.wadah [i]
Q.wadah [i] ← P
i ← i −1
endwhile { (Q.wadah [i]). prioritas ≤ P. Prioritas }

Q.tail ← Q.tail + 1