Note: Live quiz MCQs also repeated in Exam (6, 7)

CS604p

Final Term (Live Quiz)

Subject Code: CS604P - Operating Systems (Practical)

Question #1: In Disk Free Space Management by using bit map and bit vector each block is represented by _____.

- 4 bits
- 2 bits
- **1 bit.** ✅
- 3 bits

Question #2: In Disk Free Space management free space list is implemented as a _____.

- Bit Sap or Bit Wap
- **Bit Map or Bit Vector** ✅
- Bit Cap or Bit Tap
- Bit Nap or Bit Tap

Question #3: Overhead of Bit-Map in Free-Space Management is calculated as:

- **overhead = (diskSize / blockSize)** ✅

- overhead = (diskSize / bit-vactorSize)
- overhead = (fileSize / blockSize)
- overhead = (diskSize / freespaceSize)

Question #4: In the following declaration of two dimensional integer array:

int A[1024][1024];

Integer array A has _____number of rows.

- 512
- 1024x 1024
- **1024** ✅
- 256

Question #5: Two-dimensional array can be traversed in column major order if it is traversed _____wise.

- hash
- diagonal
- **column** ✅
- row

1. **Suppose there are 16 number of pages so number of bits needed for p is:**
   - O
   - O O
   - O O O
   - **4 ✓**
2. **The address seen by memory unit i.e. the address loaded into the memory address register is commonly referred to as the ____**

- **Logical address ✓**
- Physical address
- Simple address
- Complex address

3. **In Banker algorithm Max data structure is used. If, then process Pi can request maximum k instances of resource type Rj.**
   - Max[i][k] = j
   - **Max[i][j] = k ✓**
   - Max[i][j] = l
   - Max[i][j] = m
4. **A process must enter the maximum number of instances that he may need in the future.**
   - Lotus algorithm
   - College algorithm
   - **Banker algorithm ✓**
   - University algorithm
5. **Logical Address generated by the CPU is divided into two parts: a page number (p) and a page offset (d) and is calculated by following formula:**
   - p/d
   - **p + d ✓**
   - pt + d
   - p - d

1. **In a process must enter the maximum number of instances that he may need in the future.**
   - College algorithm
   - University algorithm
   - ☑ Banker algorithm

- Lotus algorithm

2. **Suppose there are 16 number of pages so number of bits needed for p is:**
   - ✅ 4
   - 5
   - 6
   - 7
3. **The address seen by memory unit i.e., the address loaded into the memory address register is commonly referred to as the:**
   - ✅ Logical address
   - Simple address
   - Complex address
   - Physical address
4. **Suppose there are 32 number of frames so number of bits needed for f is:**
   - ✅ 5
   - 6
   - 7
   - 8
5. **The address generated by CPU is commonly referred to as the:**
   - Sample address
   - Physical address
   - ✅ Logical address
   - Complex address

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Question 1:

Overhead of Bit Map = (diskSize/blockSize)

Question 2:

In the following declaration of two-dimensional integer array:

int A[10][20];

Number of rows = ?

50 ✓

1024

255

1024 * 1024

Question 3:

Disk Free Space management technique is implemented using:

Bit Map or Bit Vector ✓

B+ Tree or B* Tree

B Tree or B+ Tree

B Tree or B Tree

Question 4:

Two-dimensional array can only be traversed in column major order if it is _____.

Diagonal

Column

Row ✓

Hash

Question 5:

In Disk Free Space Management by using bit map and bit vector each block is represented by:

1 bit

3 bits

2 bits ✓

4 bits

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Question # 1: In _____the pager brings only those necessary pages into memory that are needed.

Demand paging ✓

Self paging

Hash paging

Push paging

Question # 2: In _____Page Replacement algorithm. If we use the recent past as an approximation of the near future, then we will replace the page that has not been used for the longest period of time.

Low Reset Used (LRU)

Low Reset UP (LRU)

Least Recently Used (LRU) ✅

Low Resolution Used (LRU)

Question # 3: Two-dimensional array can be traversed in row major order if it is traversed _____wise.

column

hash

diagonal

row ✅

Question # 4: In Disk Free Space Management by using bit map and bit vector each block is represented by _____.

4 bits

1 bit. ✅

2 bits

3 bits

Question # 5: In the following declaration of two dimensional integer array:

int A[1024][1024];

Integer array A has _____number of rows.

1024 ✅

1024x 1024

256

512

Question # 6: Two-dimensional array can be traversed in column major order if it is traversed _____wise.

diagonal

hash

row

column ✅

Question # 7: Page Replacement Algorithm LRU is called:

Low Reset Used

Low Reset UP

Low Resolution Used

Least Recently Used ✅

Question # 8: In Disk Free Space management free space list is implemented as a _____.

Bit Cap or Bit Tap

Bit Sap or Bit Wap

Bit Nap or Bit Tap

Bit Map or Bit Vector ✅

Question # 9: Least Recently Used (LRU) page replacement algorithm basically works on the concept that the pages that are heavily used in _____instructions are likely to be used heavily in next instructions.

push

hash

pop

previous ✅

Question # 10: Overhead of Bit-Map in Free-Space Management is calculated as:

overhead = (diskSize / freespaceSize)

overhead = (fileSize / blockSize)

overhead = (diskSize / blockSize) ✅

overhead = (diskSize / bit-vactorSize)

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Page Replacement Algorithm LRU is called:

☐ Low Resolution Used

✅ Least Recently Used

☐ Low Reset Used

☐ Low Reset UP

Least Recently Used (LRU) page replacement algorithm basically works on the concept that the pages that are heavily used in _____instructions are likely to be used heavily in next instructions.

☐ push

✅ pop

☐ previous

☐ hash

In the following declaration of two dimensional integer array:

int A[1024][1024];

Integer array A has _____number of rows.

☐ 1024x 1024

☐ 256

☐ 512

☑ 1024

Overhead of Bit-Map in Free-Space Management is calculated as:

☐ overhead = (fileSize / blockSize)

☑ overhead = (diskSize / bit-vactorSize)

☐ overhead = (diskSize / blockSize)

☐ overhead = (diskSize / freespaceSize)

In Disk Free Space Management by using bit map and bit vector each block is represented by _____.

☐ 2 bits

☐ 4 bits

☐ 3 bits

☑ 1 bit.

In _____Page Replacement algorithm. If we use the recent past as an approximation of the near future, then we will replace the page that has not been used for the longest period of time.

☐ Low Resolution Used (LRU)

☑ Least Recently Used (LRU)

☐ Low Reset Used (LRU)

☐ Low Reset UP (LRU)

Two-dimensional array can be traversed in column major order if is traversed _____wise.

☐ diagonal

☐ row

☑ column

☐ hash

Two-dimensional array can be traversed in row major order if it is traversed _____wise.

☑ row

☐ diagonal

☐ hash

☐ column

In Disk Free Space management free space list is implemented as a _____.

☐ Bit Cap or Bit Tap

☐ Bit Sap or Bit Wap

☐ Bit Nap or Bit Tap

☑ Bit Map or Bit Vector

In _____the pager brings only those necessary pages into memory that are needed.

☐ Hash paging

☐ Push paging

☑ Demand paging

☐ Self paging

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Question 1: In _____Page Replacement algorithm. If we use the recent past as an approximation of the near future, then we will replace the page that has not been used for the longest period of time.

Low Reset Used (LRU)

Low Reset UP (LRU)

Least Recently Used (LRU) ✓

Low Resolution Used (LRU)

Question 2: Logical Address generated by the CPU is divided into two parts: a page number (p) and a page offset (d) and is calculated by following formula:

p % d

p + d ✓

p / d

p * d

Question 3: Suppose there are 32 number of frames so number of bits needed for f is:

3

5 ✓

2

4

Question 4: Least Recently Used (LRU) page replacement algorithm basically works on the concept that the pages that are heavily used in _____instructions are likely to be used heavily in next instructions.

push

pop

hash

previous ✓

Question 5: Suppose there are 16 number of pages so number of bits needed for p is:

3

4 ✓

1

2

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Question 1: In Banker algorithm Max data structure is used. If__, then process Pi can request maximum k instances of resource type Rj.

Max[k,j] = i

Max[i,k] = j

Max[j,i] = k

Max[i,j] = k ✓

Question 2: In Banker algorithm Need data structure is used. If_, then process Pi may need k more instances of resource type Rj to complete the task.

Need[i,k] = j

Need[i,j] = k ✓

Need[k,j] = k

Need[j,i] = k

Question 3: _____has the significant effect on computer performance.

Queue paging

Stack paging

Self paging

Demand paging ✓

Question 4: Logical Address generated by the CPU is divided into two parts: a page number (p) and a page offset (d) and is calculated by following formula:

p + d ✓

p % d

p * d

p / d

Question 5: Logical data refers to the instruction or data stored in the _____.

Secondary memory location

Physical memory location

Process address space ✓

Hash table space

Question 6: The address generated by CPU is commonly referred to as the _____.

Physical address

Complex address

Logical address ✓

Sample address

Question 7: We need the following data structures in the Banker's algorithm:

Available, Min, Allocation and First.

Available, Min, Allocation and Find.

Available, Max, Allocation and Need. ✓

Available, Max, Allocation and Next.

Question 8: In _____a process must enter the maximum number of instances that he may need in the future.

Lotus algorithm

College algorithm

Banker algorithm ✓

University algorithm

Question 9: In most computers memory access time is ranging from _____.

10 to 200 microseconds

200 to 300 microseconds

10 to 200 nanoseconds ✓

300 to 600 microseconds

Question 10: Suppose there are 32 number of frames so number of bits needed for f is:

5 ✓

4

2

3

Note: Live quiz MCQs also repeated in Exam (6, 7)