# Unit 6 - Week 5

Course outline

How does an NPTEL online course work?

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Week 5

- Paging
- Process Address Spaces Using Paging
- Quiz : Assignment 5
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## Assignment 5

**The due date for submitting this assignment has passed.**
**As per our records you have not submitted this assignment.**

**Due on 2020-03-04, 23:59 IST.**

1) Consider a machine with 64 MB physical memory and a 32-bit virtual address space. If the page size is 4KB, what is the approximate size of the page table? *1 point*

- 16 MB
- 8 MB
- 2 MB
- 24 MB

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*2 MB*

2) Page fault occurs when *1 point*

- the page is corrupted by application software
- the page is in main memory
- the page is not in main memory
- the process requesting the page does not have privilege to access the page

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*the page is not in main memory*
*the process requesting the page does not have privilege to access the page*

3) For a single layered paging, every virtual address is divided into 2 parts. They are: *1 point*

- frame bit & page number
- page number & page offset
- page offset & frame bit
- frame offset & page offset

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*page number & page offset*

4) Paging increases the _____ time. *1 point*

- Waiting
- Execution
- Context-switch
- All of the above

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Context-switch*

5) Which of the following register is used for getting the address of page directory: *1 point*

- esp
- cs
- eip
- cr3

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*cr3*

6) What is the structure of an entry in a page table: *1 point*

- 20-bit address of next level page table or page and 4-bit flags
- 26-bit address of next level page table or page and 6-bit flags
- 20-bit address of next level page table or page and 12-bit flags
- None of the above

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*20-bit address of next level page table or page and 12-bit flags*

7) Which is/are advantages of segmentation over paging: *1 point*

- Fragmentation is less in segmentation
- Segmentation is faster than paging
- Number of lookup is less in segmentation
- All of the above

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Segmentation is faster than paging*
*Number of lookup is less in segmentation*

8) If one tries to access a page which is writeable according to page directory and not writeable according to page table then: *1 point*

- Page Fault
- Successful write operation
- None of the above

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*Page Fault*

9) What is default size for kernal (data, code etc) in VA space of a process in Linux 32-bit x86: *1 point*

- None
- 3GB
- 2GB
- 1GB

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*1GB*

10) If the memory access time is denoted by 'ma' and 'p' is the probability of a page fault (0 <= p <= 1). Then the effective access time for a demand paged memory is _____ *1 point*

- p x ma + (1-p) x page fault time
- ma + page fault time
- (1-p) x ma + p x page fault time
- none of the mentioned

No, the answer is incorrect.
Score: 0
**Accepted Answers:**
*(1-p) x ma + p x page fault time*