

1. In what kind of binding is the logical address same as the physical address

Any binding using base-and-limit registers

2. Which of the following is false about load-time binding schemes

the physical address is calculate by adding the base address to the logical address on every memory access

3. What is a problem with the combination of dynamic loading and static linking

It could load multiple copies of the same code into memory

4. Which of the following is true about fragmentation in variable- or fixed-sized contiguous memory allocation

In variable-sized allocation, all fragmentations are external

5. which of the following is true about compaction

It requires execution-time address binding

6. which of the following is true about paging

Paging avoids external fragmentation but still can have internal fragmentation

7. Let T denote the page table, P_{page} the page number, P_{frame} the frame number, d_{page} the offset within the frame. Assume the logical address $P_{page} \bullet d_{page}$ maps to the physical address $P_{frame} \bullet d_{frame}$, which of the following is true

$d_{page} = d_{frame}$

8. what is not a benefit of demand paging compared to non-demand paging

Provides better protection from other users

9. In a demand paging system, which one is a correct interpretation about the valid/invalid bit

'i' could mean either (1) the page is within the process's address but nonresident or (2) an invalid reference

10. Is there a difference in how a page fault is handled compared to a regular interrupt

The instruction that caused the page fault must be restarted after fault handling

11. Which of the following is a correct definition

A page replacement algorithm decides which frame to replace

12. Which of the following is true about Belady's anomaly

Adding more frames could actually cause more page faults

13. Which of the following is true about Enhanced Second-Chance page replacement algorithm, assuming the tuple consists of (reference, modify) bits

(0,0) is the best page to replace because it is neither recently used nor modified

14. Which of the following is true about global vs. local frame allocation upon page fault

Global allocation is more common due to greater throughput and better utilization

15. Which of the following is true about SLAB allocation

There is no fragmentation in each cache because it contains exactly the size of object needed

16. Using a processor cache as an analogy, what does each TLB entry contain in the cache tag and data

Page number= cache tag, frame number= data

17. What happens on a TLB miss

The OS loads the page-table entry from memory into the TLB

18. In a two-level hierarchical page table, the size of an inner page table is

The same as the size of a page

19. What is true about the way clustered page tables work

Each page table entry covers multiple pages rather than just one

20. what is the purpose of the PTLR

to save memory on the size of the page table when most entries are unused

21. Which of the following disk scheduling algorithms may have starvation

SSTF