#1: What is the major advantage and disadvantage in using LRU memory page replacement algorithm (compared with using “FIFO page replacement algorithm”)?

#2: What is the major advantage in using NRU (Not Recently Used) page-replacement algorithm?

#3: What is the major advantage in using 2nd-chance page-replacement algorithm?

#4: What is “memory leak” and how does one happens?

#5: What is “(memory) garbage collection”? What type of memory do they “collect”?

#6: Why is “(memory) garbage collection” a problem?

#7: Why is the primary difference between “(memory) garbage collection (CS314 topic)” and “memory compaction (CS286 topic)”?

#8: What is the primary advantage in using a programming-language that does not perform “automatic garbage collection”?

#9: What are “real-time systems”?

#10: What is “hard real-time” system? What is “soft real-time system”?

#11: What is “determinism”?

#12: What is “responsiveness”?

#13: What make “determinism” hard to guarantee (mention two)?

#14: What make “responsiveness” hard to guarantee (mention two)?

#15: In many real-time process scheduling algorithms, determinism and responsiveness are in a trade-off relationship. Describe how they are in a trade-off relationship.

#16: What is “static real-time scheduling”?

#17: What is “dynamic real-time scheduling”?

#18: What is “process migration” (how is it different from “process cloning”)? Make sure to describe its primary purpose.

#19: What is “process cloning” (how is it different from “process migration”)? Make sure to describe its primary purpose.
#20: What are the primary advantages and disadvantages in “process cloning” (compared with “process migration”)?

#21: What are the primary advantages and disadvantages in “process migration” (compared with “process cloning”)?

#22: What are the three essential decision-making factors for code migration and cloning?

#23: Mention three different actual metrics popularly used for “Transfer Policy”?

#24: Mention four different actual metrics popularly used for “Location Policy”?

#25: What does “migrated execution time” consist of (mention three components)?

#26: Which of followings can “process migration” migrate?

(a) Program codes
(b) Program data
(c) Local resources

#27: Which of followings can “process cloning” migrate?

(a) Program codes
(b) Program data
(c) Local resources

#28: What are “push-model migration/cloning” and “pull-model migration/cloning”? 

#29: What are the primary advantages in “pull-model migration/cloning” (compared with “push-model”)?

#30: What is “weak mobility” (make sure to mention the two key differences from “strong mobility”)?

#31: What is “strong mobility” (make sure to mention the two key differences from “weak mobility”)?

#32: What is the primary advantage and disadvantage in “strong mobility” (compared with “weak mobility”)?

#33: What is “internal execution”? 

#34: What is the primary advantage in “external execution” (compared with “internal execution”)?