

Opsys 2021 VİZE

1) Which parts of the program is shared among the threads.

Code section, data section, open files

Code section, registers open files

Data section, stack, registers

Program counter, registers stack

2) Explain the DIFFERENCE between the core dump and crash dump. (3 Puan)

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3) When using fork system call parent and child process have the same address space. (3 Puan)

☐ True

☐ False

4) Program code is stored in the text section of the program (3 Puan)

☐ True

☐ False

5) Threads share the memory and the resources of the process by default (4 Puan)

☐ True

☐ False

6) **Binary semaphore equals to mutex variables. (3 Puan)**

- ☐ True
- ☐ False

7) **In Direct Memory Access, one interrupt is generated per byte (4 Puan)**

- ☐ True
- ☐ False

8) **CPU registers have a faster access time than any other device including CPU cache memory. (2 Puan)**

- ☐ True
- ☐ False

9) **What are the main sections in the critical section problem? 🗣️ (4 Puan)**

[Text box with: Yanıtınız girin]

10) **In the case of concurrency, the execution of the threads will be interleaved over time (3 Puan)**

- ☐ True
- ☐ False

12) **The heap contains dynamically allocated memory during run time (3 Puan)**

- ☐ True
- ☐ False

13) A trap or exception is a software-generated interrupt caused either by an error or a user request 🗣️ (3 Puan)

- ☐ True
- ☐ False

14) Give an example method for implicit threading? (3 Puan)

[Text box with: Yanıtınız girin]

15) Operations in Message Passing architecture is faster than shared memory architectures. (4 Puan)

- ☐ True
- ☐ False

16) The size of a character pointer equals the size of a double-pointer in C programming.

- ☐ True
- ☐ False

17) Ordinary pipes need a parent-child relationship. (3 Puan)

- ☐ True
- ☐ False

18) Write the pseudocode for Peterson's Solution for the critical section problem (5 Puan)

[Text box with: Yanıtınız girin]

19) Synchronous threading does not involve data sharing among threads. (2 Puan)

- ☐ True
- ☐ False

20) Function parameters, return addresses, and local variables stored in a Hash data structure for processes (3 Puan)

- ☐ True
- ☐ False

17) Give an example method for implicit threading) (3 puan)

[Text box with: Yanıtınız girin]

2) When using fork system call parent and child process have the same address space. (3 Puan)

- ☐ True
- ☐ False

3) Considering the following code segment a) Draw the process tree. Each node should present the up to date values of the variables a,b and i b) Provide the unordered list of print outs.

You should upload your answer as a jpg file. Before submitting, be sure that writings and drawings are clearly presented. (Anonim olmayan soru 🗣️) (10 Puan)

KOD YOKKKKK

4) If 20% of an application can be executed in parallel, what will be the theoretical maximum speedup? (3 Puan)

[Text box with: Yanıtınızı girin]