CS & IT ENGINEERING

Operating System

Memory Management

DPP 02 Discussion Notes

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01 Question

02 Discussion

Q.1

Drawback of static loading is _____.

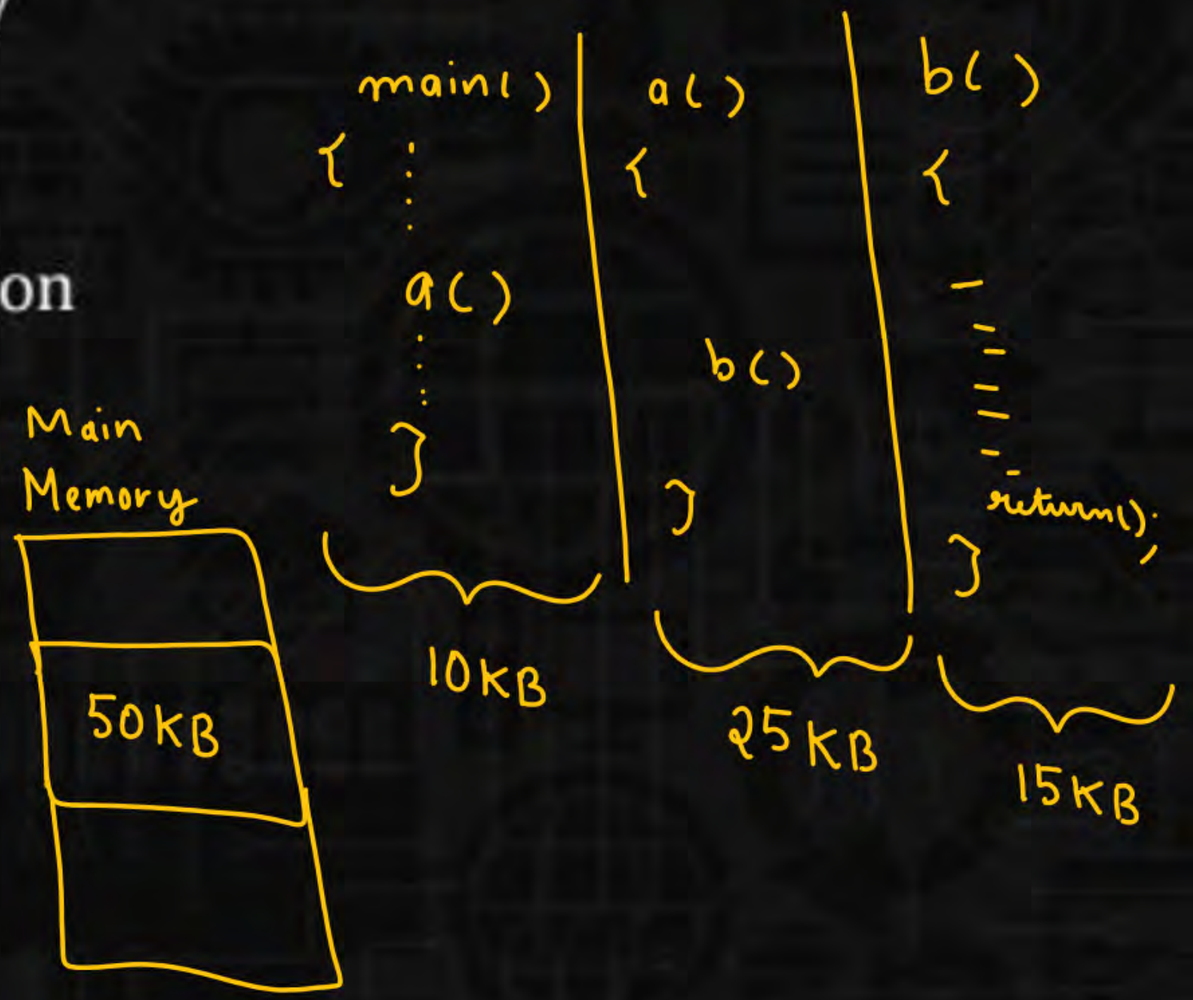
[MCQ]

A. Ineffective utilization of memory

B. Requires more time

C. Need to load data before execution

D. None of these



Q.2

Loading of modules of the program on demand is known as_____. [MCQ]

A. Static loading

B. Access loading

C. Dynamic loading

D. Page loading

Q.3

Dynamic link libraries are____ .

[MCQ]

A. Libraries that are linked with application during loading.

B. Libraries that are linked with application after compilation.

C. Libraries that are linked with application before execution.

D. Libraries that are linked with the application at run time on demand.

Q.4

Which of the following are address binding?

[MSQ]

A. Link time binding

B. Compile time binding

C. Load time binding

D. Dynamic time binding

Q.5 Consider a memory with the capacity of 32MB, how many bits are required to address this memory?

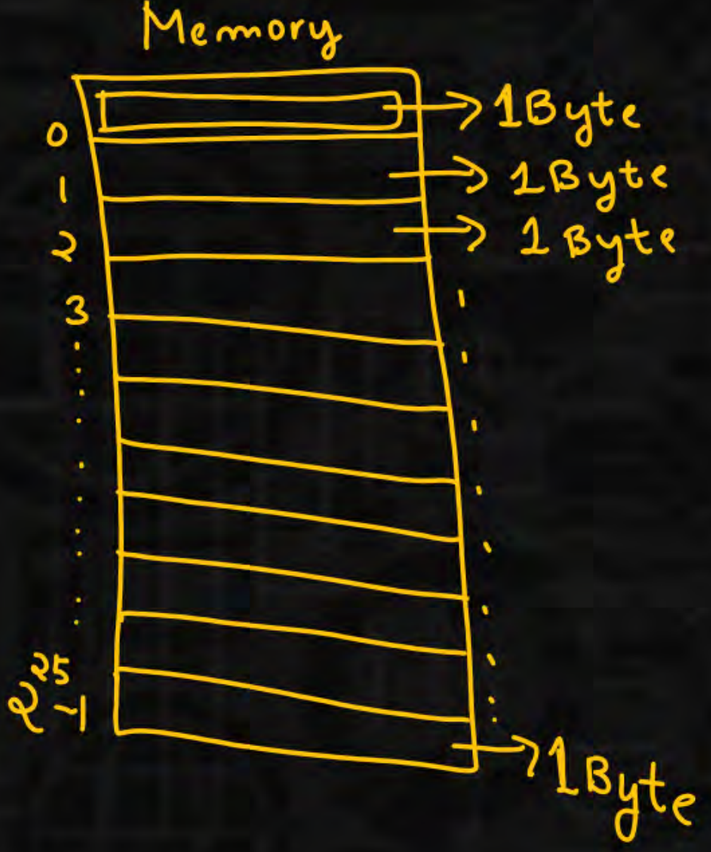
[NAT]

25

Size of memory ⇒ 32MB

$2^5 * 2^{20}$ B

$\log_2 2^{25}$ bits = 25 bits 2^{25} Bytes



Q.6

[MSQ]

Suppose 28 bits required to address a memory space, what would be the capacity of memory?

$2^{10} = 1024$

$2^{11} = 2048$

A. 256 MB

B. 4096 Mb

C. 512 MB

D. 2048 Mb

28 bits $\Rightarrow 2^{28} \Rightarrow 2^8 * 2^{20} *$ 1Byte

$\Rightarrow$ 256 MBytes

$2^8 * 2^{20} *$ 1Byte

$2^8 * 2^{20} *$ 8 bits $\Rightarrow 2^{11} * 2^{20}$ bits

$2^8 * 2^{20} * 2^3$ bits $\Rightarrow$ 2048 Mbits

Q.7

Given are memory capacity (N) along with number of bits required to address that memory (n). [MCQ]

Match them correctly

N	n
(A) 16 MB	B (i) 15 bits
(B) 32 KB	D (ii) 16 bits
(C) 8 GB	A (iii) 24 bits
(D) 64 KB	C (iv) 33 bits

A. A – (ii); B – (i); C – (iii); D – (iv)

B. A – (iii); B – (i); C – (iv); D – (ii)

C. A – (iii); B – (ii); C – (iv); D – (i)

D. A – (ii); B – (iv); C – (iii); D – (i)

$2^3 * 2^{30} B \Rightarrow 2^{33} B$ = 33 bits

$2^6 * 2^{10} B \Rightarrow 2^{16} B \Rightarrow$ 16 bits.

$2^4 * 2^{20} B \Rightarrow 2^{24} B \Rightarrow$ 24 bits

$2^5 * 2^{10} B \Rightarrow 2^{15} B \Rightarrow$ 15 bits


THANK YOU GW
SOLDIERS !