CS & IT ENGINEERING

Operating System

Memory Management

DPP 04 Discussion Notes

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01 Question

02 Discussion

Q.1

Problem of external fragmentation can be resolved by _____.

[MSQ]

A. Compaction

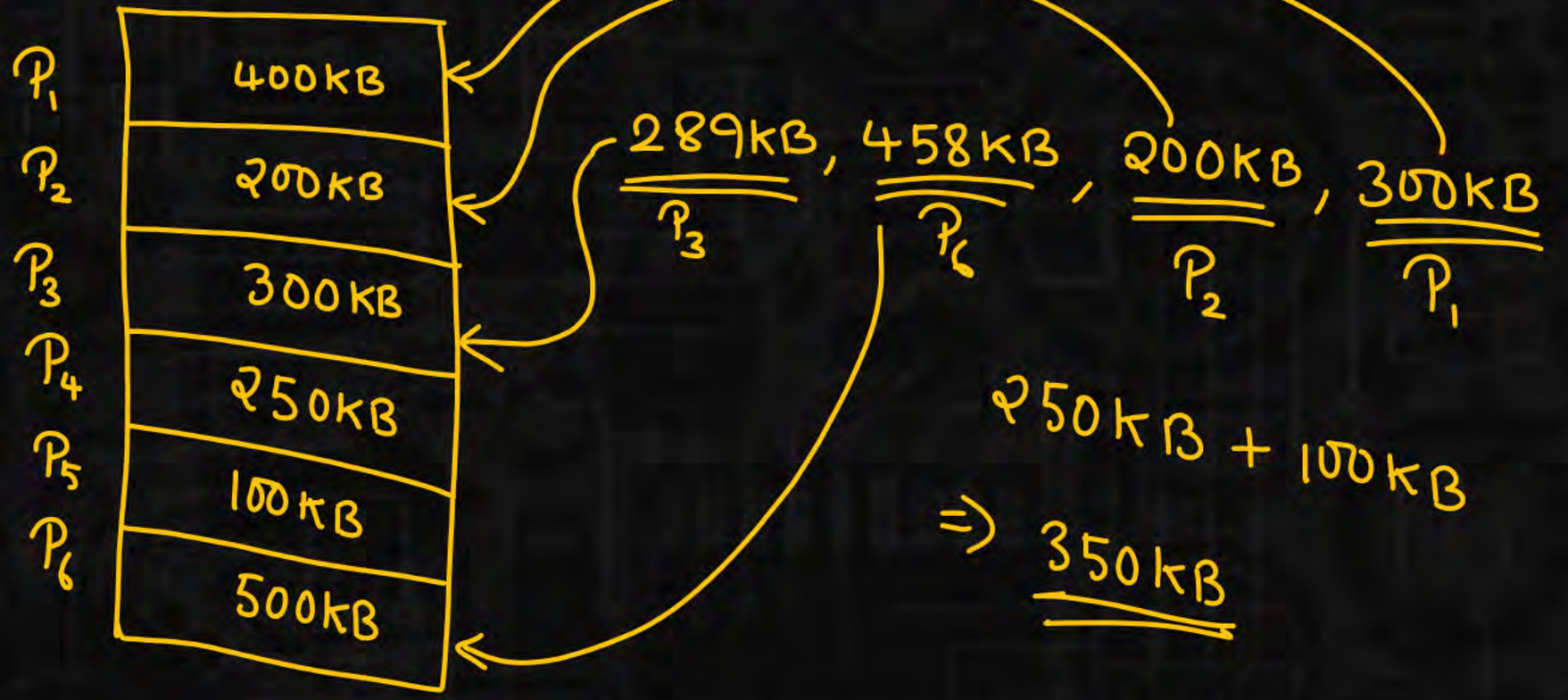
B. Overlay

C. Paging

D. Non-contiguous allocation

Q.2

Consider a memory system having six partitions 400 KB, 200 KB, 300 KB, 250 KB, 100 KB and 500 KB. There are four process of size 289 KB, 458 KB, 200 KB, 300 KB. What is the total size of unallocated partitions using best fit allocation policy (in KB)? [NAT]



Q.3

Compaction is possible with _____ address binding. [MCQ]

A. Static address binding

B. Dynamic address binding

C. Load time address binding

D. Compile time address binding

Q.4

Given five memory partitions of 200 K, 600 K, 300 K, 400 K, 700 K, (in order), how would the first-fit, best-fit and worst-fit algorithms place process of 312 K, 517 K, 212 K, and 526 K, (in order)? Which algorithm makes the most efficient use of memory? [MCQ]

312KB, 517KB, 212KB, 526KB

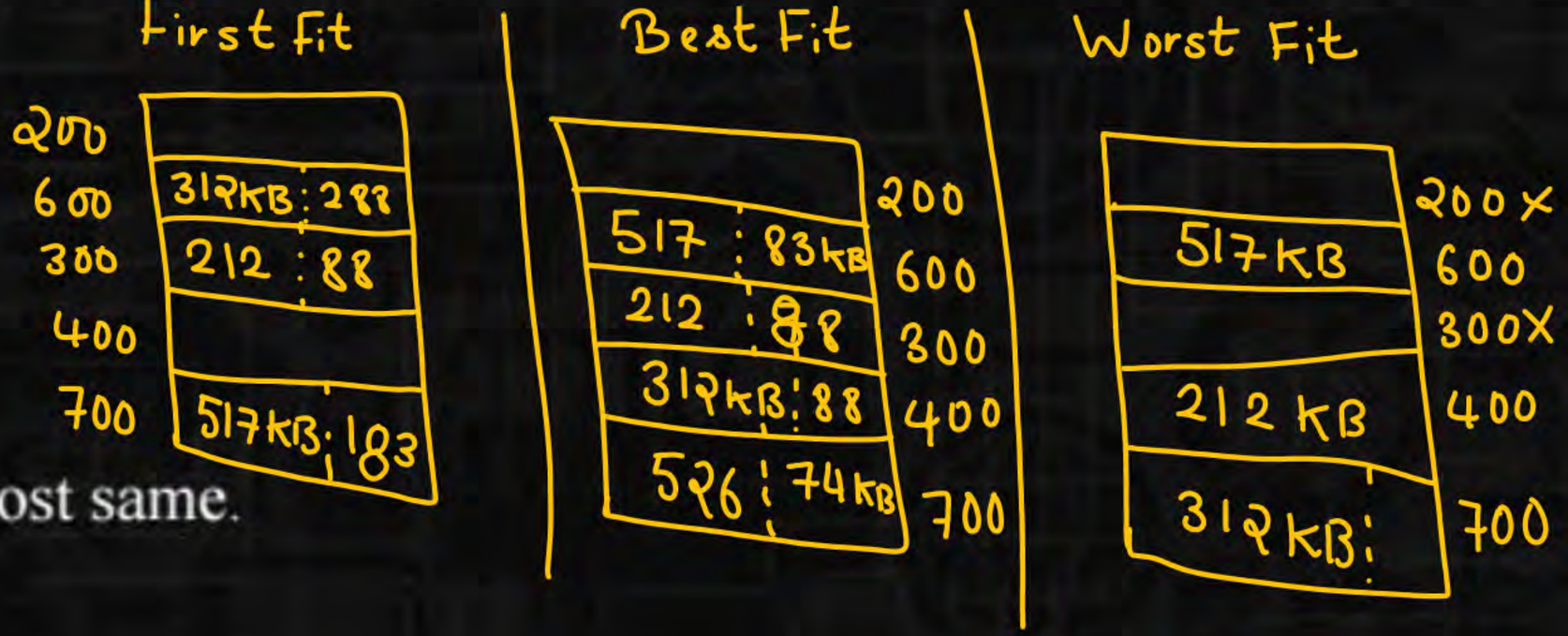
Note: Space left after filling a partition is not used by any process.

A. First fit

B. Best fit

C. Worst fit

D. All perform almost same.



Q.5

Consider a memory system with five partitions: 200 K, 250 K, 500 K, 600 K and 300 K (in order). There are some process request of size 200 K, 350 K, 30 K, 25 K, 100 K (in order). How much memory space will remain unused because of internal fragmentation if first-fit allocation policy is used? **[NAT]**

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200KB, 350KB, 30KB, 25KB, 100KB.

220 + 150 + 575 + 200

⇒ 370 + 775

⇒ 1145KB

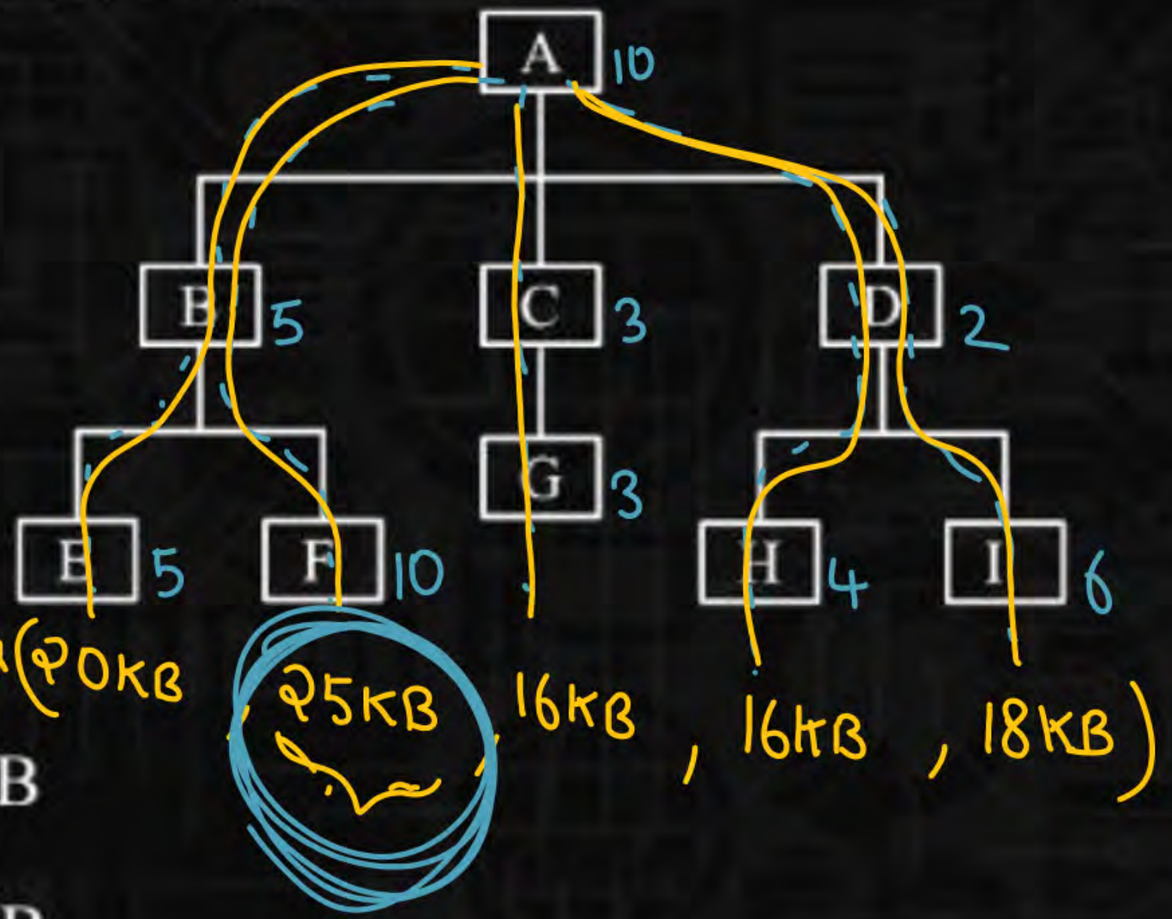
Q.6

[MCQ]

Consider the following graphical representation of program here horizontally connected blocks are independent modules and blocks connected vertically are dependent modules.

Memory requirement of each block is as follows:

A : 10KB	E: 5KB
B : 5KB	F: 10KB
C : 3KB	G: 3KB
D: 2KB	H: 4KB
	I: 6KB



Which of the following memory space is sufficient enough to execute the given program using overlays?

A. 48 KB ✗

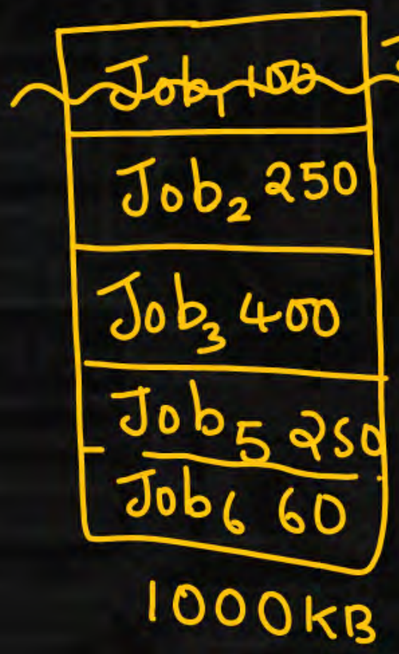
B. 25 KB

C. 50 KB ✗

D. 24 KB

Q.7

A computer has 1000K of main memory. The jobs arrive and finish the following sequence. [MCQ]



Job1 needs 100 K arrives

Job2 needs 250 K arrives

Job3 needs 400 K arrives

Job1 finishes

Job4 needs 40 K arrives

Job5 needs 250 K arrives

Job6 needs 60 K arrives

A. First fit

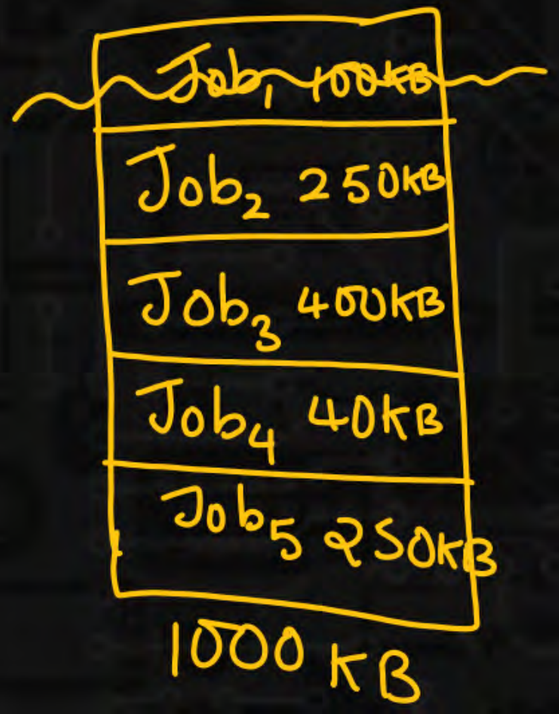
B. Next fit

C. Both will perform same

D. None of these

Which of the following allocation policy perform efficiently?

Next Fit Policy




THANK YOU GW
SOLDIERS !