

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Section 8

Q2 Difference between External & Internal fragmentation. Describe the typical elements of the process control block.

Ans 2

Internal Fragmentation	External Fragmentation
1. When there is a difference between required memory space in allocated memory space.	1. When there are small & non-continuous memory blocks which cannot be assigned to any process.
2. Internal fragmentation occurs when allocated memory blocks are of fixed size.	2. External fragmentation occurs when allocated memory blocks are of varying size.
3. Internal fragmentation occurs when a process needs more space than the size of allocated memory block or has less space.	3. External fragmentation occurs when a process is removed from the main memory.
4. Best fit block search in the heap for internal fragmentation.	4. External fragmentation occurs when a process is removed.

M	T	W	T	F	S	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Best fit block search in the solution for internal fragmentation.

Best fit block search in the solution for external fragmentation.

10. Internal fragmentation occurs when paging is employed.

External fragmentation occurs when segmentation is employed.

11. Typical elements of the process control block:-
 PCB is a data structure which is associated with any process and provides all the complete information about that process. The process control block in the manifestation of a process in an operating system. Process control block is important in multiprogramming environment as it captures the information pertaining to the number of process running simultaneously.