OS Concepts

Memory Management - Questions

1. What is meant by Paging?
2. What is meant by Segmentation?
3. Explain Internal and External Fragmentations?
4. Explain page fault? Also about bits such as modified flag or bit, dirty bit etc.
5. What is Virtual Memory?
6. Describe virtual address translation mechanism.
7. Difference between swap in/out and page in/out
8. Explain about kernel memory allocation and buddy system
9. What you understood from /proc/slabinfo and slabtop commands?
10. Write program to get resource limits using getrlimit() system call and analyze the resource limits. Check with all resource limits available.

```
#include <stdio.h>
#include <stdlib.h>
extern int etext, edata, end;
int main(){
	printf("Addr etext: %p\t", &etext);
	printf("Addr edata: %p\t", &edata);
	printf("Addr end: %p\n", &end);

	char *s1 = "hello"; //in initialized data segment
	static int v1=1; //in initialized data segment
	static int v2; //in uninitialized data segment
	char s2[] = "hello"; //in the stack area.
	int * dynmem = malloc(4);

	printf("Initialized Data Segment %p\n", s1);
	printf("Initialized Data Segment %p\n", &v1);
	printf("Uninitialized Data Segment %p\n", &v1);
	printf("Stack Area%p\n", s2);
	printf("DMA %p\n", dynmem);
	return 0;
}
```

File System Management - Questions

Memory Management

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10. http://www2.latech.edu/~box/os/ch08.pdf
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File System Management

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