# Assignment - 1

1) int a = 5, whenever a variable is declared and initialised, it is said to be static memory allocation (size is already known to be 4 bytes). So, the memory is allocated in ~~static~~ stage. And this memory is allocated by operating system.

2) int * ptr = new int, clearly this dynamic memory allocation and hence it is allocated in heap and hence the Path is a continuous for address, size of ptr is said to be the architecture of system i.e 32 bits In 32-bit architecture memory is again attached by OS.

3) Memory allocation is always done by OS because compiler is just a translator that translates the human-readable or source code to machine level or object code

Similarly in int * ptr = &a though pointer is being used, it is static memory allocation and hence memory goes into stack again.