OBSERVATIONS:

Q4:

A.as M is increasing, graph is getting smoother and amplitude is decreasing, filtering is better

B. as sigma increases, filtering quality decreases

C. as M is increasing, graph is getting smoother and amplitude is decreasing, filtering is better, but for a given value of M, relatively filter1 is giving better results

D. Here, as p increases, the graph is getting smoother, the amplitude is almost same, peak sharpness is decreasing. This filter is not as good as f1 and f2.

Q5.
>>filter1 :
as M increases, filter1 decreases noise in background ,amplitude is decreased
>>filter2:
as M increases, filter2 also decreases noise in background ,amplitude is decreased filter2 not as good as filter1

>>filter3 is the least best one, varied p from 0.1 to 0.9, but still background noise was being observed, amplitude almost same