From the graph shown in the output for part 2, it is evident that the shape of the BFI algorithm follows that of the plot of 2^n. This also applies to the shape of the Horowitz and Sahni algorithm and the plot of $n * 2^{\frac{n}{2}}$.

Also, according to the definition of Big O, if there exists a constant c for any $n > n_0$,

$$f(n) \leq c * g(n)$$

Then $f(n)$ is in $O(g(n))$. By setting c as 6 for both the BFI and Horowitz and Sahni algorithms, it is evident that their plots lie below that of 2^n and $n * 2^{\frac{n}{2}}$ respectively. Therefore, BFI is in $O(2^n)$ and Horowitz and Sahni is in $O(n * 2^{\frac{n}{2}})$.