

Assignment-2-Set 3-Q5(Basic Statistic Level -2)

```
In [1]: 1 import numpy as np
        2 from scipy import stats
        3 from scipy.stats import norm
```

```
In [2]: 1 # Apply one-sample one-tail Z-test
```

```
In [7]: 1 z_scores=(0.046-0.05)/(np.sqrt((0.05*(1-0.05))/2000))
        2 z_scores
```

Out[7]: -0.820782681668124

```
In [8]: 1 # Find probability assuming null hypothesis,so as to compare with Type-1 error  $\alpha = 0.05$ 
```

```
In [9]: 1 p_value = 1-stats.norm.cdf(abs(z_scores))
        2 p_value
```

Out[9]: 0.20588503245107104

```
In [ ]: 1
```