Faculty of Engineering (Shoubra)
Engineering Mathematics and Physics Department


Benha University Mechanical Department
$1^{\text {st }}$ year Production Time allowed:15 Minutes

## $4^{\text {th }}$ Quiz

Student Name in Arabic:
B. $\mathbf{N}^{\mathbf{O}}$ Section:

1- Find interval of convergence for the following series:

$$
\frac{1}{1.6} x^{2}+\frac{2}{6(20)} x^{4}+\frac{6}{20(252)} x^{6}
$$

2- Find Envelope of $f(x, y, t)=\frac{x}{t}+\frac{y}{1-t}=1$, the the parameter

3- Find the dimensions of the rectangular box with the largest volume if the total surface area is $64 \mathrm{~cm}^{2}$.

