Formula sheet

Formulas in gray will be provided to you on the final exam, you should know formulas in red.[1]

Revenue function:	$R(x) = p * x$
Profit function:	$P(x) = R(x) - C(x)$
Elasticity of demand:	$E(p) = -\dfrac{p \cdot q'(p)}{q(p)}$

Future value of an investment:	$B(t) = P(1 + \frac{r}{k})^{kt}$ $B(t) = Pe^{rt}$
Effective interest:	$r_e = (1 + \frac{r}{k})^k - 1$ $r_e = e^r - 1$

Interpretation of elasticity

A demand is said to be $\begin{cases} \text{elastic} & \text{if} \quad \text{E(p)>1} \\ \text{unitary} & \text{if} \quad \text{E(p)=1} \\ \text{inelastic} & \text{if} \quad \text{E(p)<1} \end{cases}$

Future value of an income stream:	$FV = e^{rT} \int_0^T f(t)e^{-rt} \, \mathrm{d}\theta$
Useful lifetime:	$R'(t) = C'(t)$

$$D(x, y) = f_{xx}(x, y) \cdot f_{yy}(x, y) - \Big(f_{xy}(x, y)\Big)^2$$

[1] Disclaimer: These are not the only formulas you have to remember.