Faculty of Computer \& Information Sciences Ain Shams University CHW 261: Logic Design
Tutorial Sheets 2020-2021
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## Assignment C

1) Express the following functions in sum-of-product and product-of-sum forms
a. $\mathrm{F}(\mathrm{A}, \mathrm{B}, \mathrm{C})=\sum(1,2,6)$
b. $\mathrm{F}(\mathrm{X}, \mathrm{Y}, \mathrm{Z})=\pi(2,5,6)$
2) Given that $\mathbf{F}(\mathbf{A}, \mathbf{B}, \mathbf{C})=\mathbf{A B} \mathbf{C}+\mathbf{A C} \mathbf{C}^{\prime}$ then
a. Express F in terms of Sum of its minterms as $\mathbf{F}(\mathbf{A}, \mathbf{B}, \mathbf{C})=\sum(\ldots)$
b. Express F in terms of product of its maxterms as $\mathbf{F}(\mathbf{A}, \mathbf{B}, \mathbf{C})=\boldsymbol{\pi}(\ldots$.
c. Express $\mathrm{F}^{\prime}$ in terms of Sum of its minterms as $\mathbf{F}^{\prime}(\mathbf{A}, \mathbf{B}, \mathbf{C})=\sum(\ldots)$
d. Express $\mathrm{F}^{\prime}$ in terms of product of its maxterms as $\mathbf{F}^{\prime}(\mathbf{A}, \mathbf{B}, \mathbf{C})=\boldsymbol{\pi}(\ldots)$
