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**MECH 453 Int. to Renewable Energy    1<sup>st</sup> Exam    Date: 9/6/2021**

**Student Name:**

**ID#:**

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**(1) Renewable Energy is an energy source that is:**

**(2) Combustion of Fossil Fuels Releases the Greenhouse Gases  
(                    ), resulting in                    .**

**(3) The "greenhouse effect" is:**

**(4) Solar Photovoltaic (PV) is:**

**(5) Wind energy is generated by:**



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**(6) Band gap energy ( $E_g$ ) is:**

**(7) A typical silicon PV cell is composed of:**

**(8) The main advantages of Photovoltaic systems over conventional power-generating technologies are:**

**(9) During a given season, the Sun's path affects the length of  
and amount of daylight received along a**



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**(10) Sun Tracking were the individual PV panel:**

**(11) A typical silicon PV cell is composed of:**

**(12) The Maximum power point (MPP) is:**

*GOOD LUCK, Prof. Jamal Nazzal*