


<p>Course No: Course Title: Energy systems and architecture Date: 25 /03/ 2012 No. of Questions: 4 Question Time: one and a half Hours Total Grade: 20</p>	<p>University of Palestine</p>  <p>Midterm Exam 2^{ed} semester 2011- 2012</p>	<p>Student No.: _____ Student Name: _____ Instructor Name: Eng. Emad A. Kandeel College of Applied Engineering- Architecture Department</p>
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Answer the following question:

First Question: (4 marks)

Put (T) or (F) for each of the following:

1. () 45% of energy is used to heat, light and ventilate in buildings.
2. () Microclimates can be modified to enhance human comfort levels thereby using less energy.
3. () Recycling is preferable to re-use and re-use is preferable to disposal.
4. () The distributed, single land use city generates a great deal more CO₂ than the traditional mixed-use neighbourhood.
5. () Passive design aim fully eliminate requirements for active mechanical systems.
6. () Gaza Strip has approximately (3861) of sunshine hours across the year .
7. () The best tilted angle β (spring and autumn) in Gaza equal 22°.
8. () Global warming means more global rain but it falls in the wrong place.

Second Question: (4 marks)

Choose the correct answer:

1. Re-use means that the building can be [good ventilation - uses renewable resources- All of the above]
2. Average solar radiation in the Gaza Strip [3.55 kWh/m².Day - 4.33 kWh/m².Day - 5.33 kWh/m².Day].
3. In hot climates, the main streets should be oriented [north–east, north–south, west–east].
4. [60% - 70% - 80%] of global timber products end up in building construction.

Third Question: (8 marks)

Clarify / Identify the following items:

1. Sustainable Development?

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2. CO₂ emissions depends upon many factors?

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3. Sun Tracking system?

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4. Which is the Greener: Steel or Concrete?

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