ASSIGNMENT NO. 1

(1) According to the Good Book, “the characteristics of software make it different from other things human beings build”. What does this statement mean?

(2) What does the Good Book mean by the term “determinate” and “indeterminate” software applications? Give two examples of each.

(3) On the internet, “critics argue that many of the foundations of software engineering are inherently flawed”. Explain at least 5 of these criticisms.

(4) Within the software engineering community itself, there are ongoing debates that have yet to achieve consensus regarding the following issues:
   - Right to use the word ‘engineering’
   - Substance versus metaphor
   - Meaning of terms
   - Fighting over priorities

In your own words describe what do they mean by “Substance versus metaphor”?

(5) Complying with ‘standards’ is one of the key activities in human life that makes us safe and secure. For example, fuels for commercial aircraft plying the globe and refueling at different airports comply with a standard, the “Jet A1 Fuel Specifications”, irrespective of whether the fuel is provided at the airport in Anchorage, Alaska, or at the KL International Airport in Sepang, Malaysia. That is why the jet fuel does not freeze in mid air and we fly safely to our destinations. Similarly, there are also standards in software engineering.

In your own words, what are the following standards precisely for:
   - IEEE Std 829
   - IEEE Std 830
   - MS Std 795 (Malaysian Standard)