



**THE OPEN UNIVERSITY OF SRI LANKA  
BACHELOR OF/ DIPLOMA IN TECHNOLOGY (ENGINEERING)  
FINAL EXAMINATION – 2006  
MPJ 4131 – HISTORY OF TECHNOLOGY**

**DURATION: THREE HOURS (ESSAY TYPE/OPEN BOOK EXAMINATION)**

**Date 27<sup>th</sup> March 2007**

**Time: 13.30hr. – 16.30hr.**

**Answer four (04) questions**

1. Describe two inventions which were developed by the Chinese; which subsequently prepared the growth for modern societies.  
Explain in your answer as to why these inventions are important for modern societies.
2. Which of these two statements do you think is true and give reasons for your answers?
  - a) Islamic civilizations were mainly transmitters of knowledge and technologies developed by the Chinese and Indians to Europe.
  - b) They themselves contributed by some important scientific Mathematical and/or technological developments.

3. By about the 4<sup>th</sup> century a.c. Sri Lanka had a developed steel making technology. Describe some unique features of this technology.

Why do you think modern day Sri Lanka does not produce even a single ounce of steel, despite the availability of raw materials and know how from ancient times?

4. Examine the time-line for scientific developments given in your text;
  - a) Who were according to this timeline mainly responsible for the development of scientific knowledge?
  - b) Can you give a more complete story of scientific developments, by taking just one example?

5. Describe briefly Bhaskara's method of solving the Pellian equation:  
 $Cx^2 + I = y^2$ , when  $x, y$  are integers,  $C$  is a given non-square integer and  $xy \neq 0$ .

What were the limitations of the above mentioned method of Bhaskara?

What did the European mathematician Lagrange achieve in this regard?