



THE OPEN UNIVERSITY OF SRI LANKA
BACHELOR OF / DIPLOMA IN ENGINEERING TECHNOLOGY
FINAL EXAMINATION – 2007
MPJ4131 – HISTORY OF TECHNOLOGY
LEVEL 04

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

Date: 13th May 2008

Time: 13.30hr. – 16.30hr.

Answer **four (04)** questions only.

1. In ancient Sri Lanka, iron – arc was smelted to steel, can you describe what was particular to the steel furnace design discovered for steel smelting at Samanalawewa.
2. What was the importance of small tanks that dotted the countryside and provided water for irrigation?
Comment on the changed environment by adopting the following two methods of modern Agriculture;
(a) Replacing cattle by a tractor for ploughing the field.
(b) Using pesticides and fertilizer in growing paddy.
3. What were the motivations which led the Chinese to develop Printing technology?
What type of natural material did they use in making paper?
4. Discuss the importance of understanding the value $\lim_{\Delta x \rightarrow 0} \left(\frac{\Delta y}{\Delta x} \right)$.
Why would you consider the calculus as developed by Leibniz and not Newton to be superior?
5. Islamic civilizations were mainly transmitters of knowledge. An example being the number system as developed by the Indians. This was known in Europe as 'Arabic numbers'. However, they did innovate and develop technologies in certain areas, could you give two examples of technologies which were developed by the Arab / Persian civilizations.