

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Mathematics and Philosophy of
Engineering



Study Programmes	: Bachelor of Science Honours in Engineering : Bachelor of Software Engineering Honours : Bachelor of Industrial Studies Honours
Name of the Examination	: Final Examination
Course Codes and Title	: MHJ4241/MHJ4271: History of Technology
Academic Year	: 2023/24
Date	: 01 st February 2025
Time	: 1330-1730h
Duration	: 04 hours

General instructions

1. This is an Essay type, Open Book Examination.
2. Answer a total of FIVE questions ONLY.
3. DO NOT copy directly from a text. If you have to quote, do so within inverted commas.
4. Answer for each question should start from a new page.
5. Non-adherence to these instructions will cause reduction in marks.

1. Identify four areas where ancient technologies can be applied in modern times. Your answer should discuss how these technologies offer sustainable solutions to current challenges and provide examples of ancient technical applications that are still relevant today. (20 marks)
2. Elaborate four reasons for the development of printing technology which is a significant milestone in ancient China. Your answer should illustrate the societal and cultural factors led to its invention and how did printing contribute to knowledge sharing and administration in ancient Chinese society. (20 marks)
3. Name four ancient Indian mathematicians and describe their contributions to mathematics. Your answer should demonstrate how such work influences mathematical concepts and in what ways their contributions shape the global understanding of mathematics. (20 marks)
4. Describe five architectural and functional features commonly seen in ancient mosques in the Middle East regions? Your answer should indicate how those features reflect the religious and cultural practices of the time and how those designs influenced modern mosque architecture. (20 marks)
5. Explain five reasons why seaports were developed in ancient Sri Lanka. Your answer should describe how the geographical location of the island contributes to its maritime activities and in what ways these seaports influence trade and cultural exchange in the country. (20 marks)
6. Elaborate five reasons for ancient Middle Eastern civilizations to develop qanat water systems. Your answer should address how these systems address the challenges of water

scarcity in arid regions and the long-term impact these systems have on urban settlements and trade. (20 marks)

7. Describe four water lifting mechanisms used in ancient times. Your answer should include the techniques which were employed to make them effective and how such mechanisms address the needs of agriculture and irrigation in the respective regions. (20 marks)

8. Compare the aqueduct system in ancient European regions and Yoad-ela system in ancient Sri Lanka regarding their water distribution techniques. Your answer should discuss the environmental aspects of both systems and how they contributed to the respective societies in ancient times. (20 marks)

End.