



Sri Lanka Institute of Information Technology

B.Sc. Special Honours Degree/Diploma  
in  
Information Technology

Final Examination  
Year 3, Semester I (2019)

IT3030 – Programming Applications and  
Frameworks

Duration: 2 Hours

June, 2019

**Instructions to Candidates:**

- This paper contains 3 pages excluding the cover page.
- This paper contains 4 questions. Answer all the questions.
- Total marks for the paper is 100.
- Write answers in the booklet given, start new answer from a new page and make sure to properly indicate the question number (e.g. 1.a), 1.b), etc...).
- Answer for any single sub question cannot go beyond a single page.
- Answer in point form (take the marks allocation into consideration).
- Electronic devices capable of storing and retrieving text, including calculators and mobile phones are not allowed.

**Question 3****(25 marks)**

- a) Criticize different types of communication technologies/techniques in web service development, providing example implementations of them. (9 marks)
- b) Discuss the importance of using Maven in Java web service development, specifying dedicated JAVA libraries for different types of web services (7 marks)
- c) Explain the advantages of micro-service architecture over monolithic architecture, using an example scenario of online buying and selling system (use the knowledge you have gained via completing the assignments). (9 marks)

**Question 4****(25 marks)**

- a) Provide different client-side development technologies/techniques for RiWAs, explaining their use, and valuing them. (9 marks)
- b) Differentiate alternative Delta-Communication technologies/techniques, indicating their pros and cons. (9 marks)
- c) Judge the use of client-side controller and model in Rich Web-based Applications, explaining their use. (7 marks)

---

**End of the Question Paper**