

THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF COMPUTER SCIENCE
B.Sc. DEGREE PROGRAMME 2017/2018
FINAL EXAMINATION
CPU3149/CSU5302: WEB TECHNOLOGIES
DURATION: TWO HOURS ONLY (2 HOURS)



29th September, 2018

Time: 9.30 a.m. to 11.30 a.m.

Answer **FOUR** Questions **ONLY**.

Q1).

A photography club is looking for an IT solution to improve the way they do the different operations related to the club activities. like storing and sharing photographs, search photographs, member registration and other administration, communication among members and competitions, exhibitions, etc.

1. List four benefits of implementing an Internet-based system for a photography club.
2. Briefly describe two benefits and two drawbacks of using client server architecture to implement the new system.
3. Choose four different Internet protocols and briefly describe how they can be utilized to implement different features in this system.
4. List two client software types which are categorized according to their complexity. List two features that can be implemented for each type of above client software.

Q2).

Suppose you are in a web development team who are planning to build a website for a vehicle dealer.

1. What are the main HTML sections of the home page of the above website? Briefly describe the usage of each of these sections.
2. Briefly describe two web animation options that can be used to improve the quality of this website.
3. Briefly describe four facts to be considered when developing the web site for a vehicle dealer.
4. Briefly describe two client-side features and two server-side features that can be implemented for this web site.

Q3).

It is planned to make the passenger bus transport system web based, to improve the usability and accessibility of the information for the general public.

1. Write the logical implementation to find the available transportation options when the starting location, end location and the start time is provided. Use natural language to write the implementation.
2. Briefly describe two usages of having a database in this system.

3. Briefly explain how we can utilize XML technologies for this system by means of an example.
4. Briefly describe how we can utilize web services technologies to use external information and to open internal information for the rest of the world by means of an example for each.

Q4).

After delivering a web development project it is natural and accepted to receive a lot of modifications, change requests from the customer, and to deal with a lot of security risks.

1. Briefly explain how we can use CSS technologies to improve the maintainability of look and feel of a website by means of two examples.
2. Briefly explain two usages of web development tools used in development and maintenance of a website.
3. Briefly describe why it is important to follow common coding standards and follow the industry standards when developing a website.
4. Briefly explain two known security vulnerabilities that can be avoided to improve the website security.

Q5).

It is very important to use a proper hosting plan and search engine optimization technologies to make a website more reachable and popular.

1. List the steps of hosting a Website on the Internet, once you have completed the development of it.
2. Briefly explain two considerations to be made when selecting a web hosting plan.
3. Describe the importance of search engines and how they affect an online business to improve the presence on the Internet.
4. Briefly explain four ways you can optimize a website in using search engines.

Q6).

Mobile web applications and HTML5 are the future of the Internet with the exponential growth of mobile device users over the past few years. Online food ordering is one of the areas that is highly becoming popular among the new generations.

1. Briefly explain how mobile web applications can be used to improve the food ordering and delivering mechanism, taking two scenarios.
2. Explain two considerations to be made when transforming your website to be compatible with the mobile web app.
3. Briefly explain a benefit of using HTML5 when developing a mobile web app.
4. Briefly explain the usage of two tags specific to HTML5.

All Rights Reserved