THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY

DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

SEMESTER 2 EXAMINATIONS - 2022

THIRD YEAR BACHELOR OF SCIENCE IN COMPUTER SCIENCE

CS320 – INTERNET PROGRAMMING II

TIME ALLOWED: 2 HOURS

INFORMATION FOR CANDIDATES

1. Write your name and student number clearly on the front of the answer booklet.
2. You have 10 minutes to read this paper. You must not begin writing during this time.
3. There are **five** questions, you should answer all questions.
4. All answers must be written in answer booklets only. No other written material will be accepted.
5. Start the answer for each question on a **new** page. Do **not** use red ink.
6. Notes and textbooks are not allowed in the examination room. All mobile phones and electronic/recording devices must be switched off during the examination.
7. Scientific and business calculators are allowed in the examination room.

MARKING SCHEME

Marks are indicated at the beginning of each question. They total 100.

QUESTION 1. [2 + 2 + 2 + 4 + 4 = 14 Marks]

(a) What does W3C stand for?

(b) What is referred to as a compliant-browser?

(c) What is a web server?

(d) What is the relationship between WWW and HTTP?

(e) Describe the difference between HTTP get and post request.

QUESTION 2. [(4+4+4) + (8 + 8] = 28 Marks]

(a) Define and briefly describe the use of the following web technologies.

(i) HTML.
(ii) JSON.
(iii) XML.

(b) Write the code to create an XML and a corresponding JSON file for the "Houses" data listed below

houseNo	street	suburb	city
012	Apple	Town	Lae
342	Mango	Main Market	Madang
445	Pear	Town	Lae
112	Grape	Town	Rabaul

QUESTION 3. [2 + 2 + 2 + (2+2+2) = 12 Marks]

(a) What is a webstack?

(b) What does a webstack comprise of, at a minimum?

(c) Name a popular framework used for client/front-end development.

(d) In creating a web application there are several design concerns that a developer may face. Name any 3 design concerns and briefly describe each one.

QUESTION 4. [20 Marks]

Write code to a create a small Node .js web application using the only the "http core module". The application will listen to port 1234 and respond with the text "Hello World".

QUESTION 5. [4 + (4 + 4 + 4 + 4) + 6 = 26 Marks]

(a) What is SOAP?

(b) A SOAP message contains 4 primary components. List and briefly describe each one.

(c) What is the relationship between web service providers, WSDL and UDDI in publishing a web service?

END OF EXAM