

Name of Candidate: _____

Student ID: _____

Signature: _____

THE UNIVERSITY OF NEW SOUTH WALES

COMP3331/9331 T3, 2019

Computer Networks and Applications

Final Examination

INSTRUCTIONS TO CANDIDATES:

- (1) Time allowed: 2 hours plus 10 minutes reading time
- (2) Total number of pages: 9 (including this cover page).
- (3) Total number of questions: 8. You must answer all questions. Questions are of different value. Marks are as indicated. This examination makes up **40 marks** of your final mark for this course.
- (4) There are two sections. You are asked to answer each section in a separate booklet.
- (5) Do not write your answers on this paper. This paper *must be returned* at the end of the examination.
- (6) Note that if the question asks you to derive a result or perform some calculations, it is important for you to show us your intermediate steps and tell us the arguments that you have made to obtain the result. You need to note that both the intermediate steps and the arguments carry marks. Please note that we are **not** just interested in whether you can get the final numerical answer or conclusion right, but we are **more** interested to find out whether you understand the subject matter. We do that by looking at your intermediate steps and the arguments that you have made to obtain the answer. Thus, if you can show us the perfect intermediate steps and the in-between arguments but got the numerical values wrong for some reason, we will still award you marks for having understood the subject matter. If the question asks you to give an explanation, you should aim to give a succinct and to the point answer.
- (7) This is a closed-book examination. UNSW approved calculators are allowed.
- (8) Write all answers in **ink** except where they are expressly required. Pencils may be used only for drawing, sketching or graphical work.

Use separate answer booklet for each section

SECTION 1 - Questions 1 – 4 (20 marks)

Question 1 (3 marks, 0.75 mark for each)

Multiple Choice Questions: There is only one correct option. You will get zero marks if you select multiple options. Write your answers in the answer booklet.

1. HTTP
2. Ethernet
3. IP Addresses
4. TCP

Question 2 (5 marks)

TCP

Question 3 (6 marks)

Routing

Question 4 (6 marks)

IP Addresses, Subnets, etc

Turn to next page for Section 2

Use separate answer booklet for each section

SECTION 2 - Questions 5 – 8 (20 marks)

Question 5 (3331: 5 marks, 93331: 6 marks)

3331: Network Layer + Data Link Layer

9331: Network Layer + Data Link Layer

Question 6 (3331: 6 marks, 9331: 5 marks)

3331: Network Layer + Data Link Layer

9331: Network Layer + Transport Layer

Question 7 (4 marks)

802.11 (WiFi)

Question 8 (5 marks)

Network Security