

# Internet Infrastructure and Protocols (COMP5311)

## Solution to Assignment Three

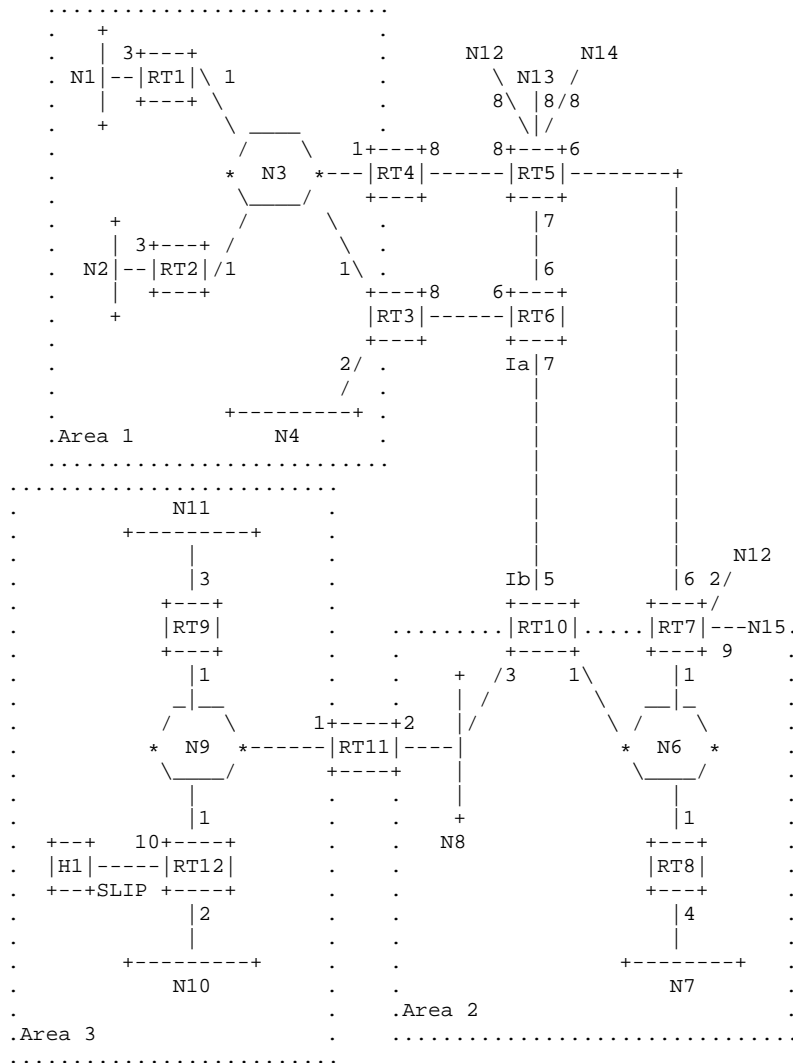
Due on 24 November 2009

Questions 1-4 each carries 8 marks, and question 4 carries 22 marks.

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1) (OSPF) Referring to the OSPF network below, answer the following questions:

- (1 mark) Is *RT1* aware of *RT4* and why?
- (1 mark) Is *RT1* aware of *RT5* and why?
- (1 mark) Is *RT1* aware of *RT6* and why?
- (1 mark) Is *RT1* aware of *RT7* and why?
- (1 mark) Is *RT1* aware of *RT8* and why?
- (1 mark) Is *RT3* aware of *RT5* and why?
- (1 mark) Is *RT3* aware of *RT8* and why?
- (1 mark) Is *RT3* aware of *RT11* and why?



### Solutions:

- (1 mark) Yes, because *RT4* is part of area 1.

- b) (1 mark) Yes, because *RT4* and *RT3* will advertise *RT5* to the intra-area routers.
- c) (1 mark) No, because *RT6* is a backbone router but not an AS-border router.
- d) (1 mark) Yes for the same reason as (b).
- e) (1 mark) No, because *RT8* is an intra-AS router in area 2.
- f) (1 mark) Yes, because both belong to the backbone AS.
- g) (1 mark) No, because *RT8* is an intra-AS router in area 2.
- h) (1 mark) Yes, because both belong to the backbone AS.