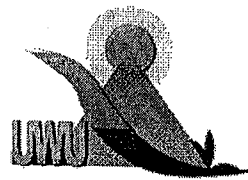


Uva Wellassa University, Sri Lanka

End Semester Examination – March 2011

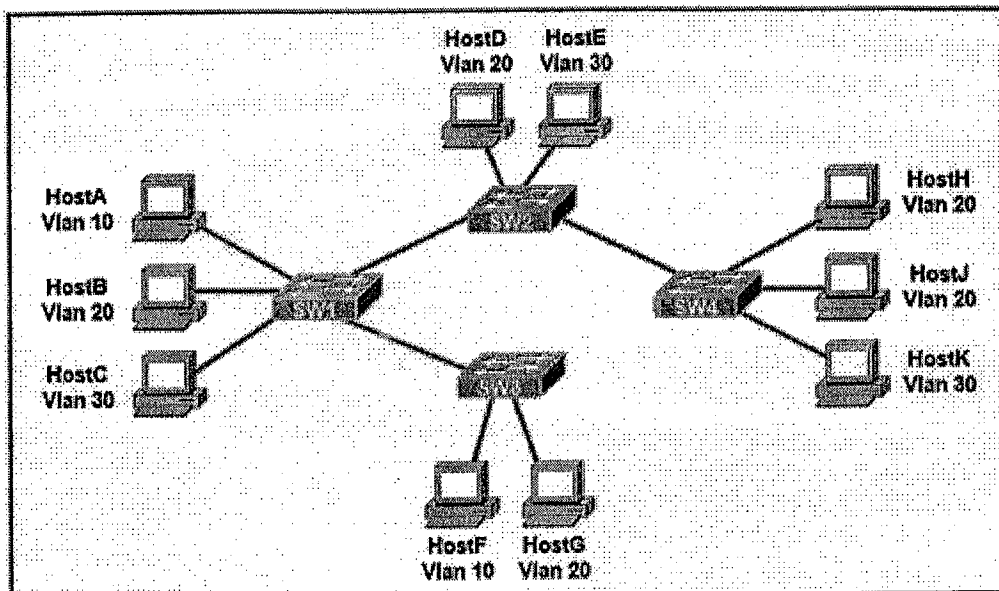
CST 451-2 Advanced Networking & Applications



Time: Two (02) Hours

Answer all questions.

- 1)
  - a) What is a VLAN (Virtual Local Area Network)? (05 Marks)
  - b) State the benefits which can be achieved by employing VLANs (05 Marks)
  - c) What are the types of VLANs? (05 Marks)
  - d) What is VTP (VLAN Trunking Protocol)? (05 Marks)
  - e) Refer to the exhibit. VTP has been configured with VTP pruning enabled on all switches. If HostA sends a broadcast frame to SW1, which devices will receive the frame? (05 Marks)



- 2)
  - a) What is NVRAM in a switch? Explain your answer briefly. (05 Marks)
  - b) What is the difference between an Ethernet hub and a switch? (05 Marks)
  - c) What is the difference between a Bridge and a switch? (05 Marks)
  - d) What is TFTP server? (05 Marks)
  - e) What are the benefits you can get from a TFTP server for network devices? (05 Marks)

- 3)
- a) A new network is being designed for a company. They require to link two buildings located nearby for exchange data. Compare and contrast following connection methods briefly. (05 Marks)
- i) Fiber optics
  - ii) Wi-Fi
  - iii) Laser beams
- b) What is NAT? How it improves network security? (05 Marks)
- c) What would you do if you discovered a network device on your network has been compromised? (05 Marks)
- d) Which of the following are valid IPv6 addresses? Choose three (3) and write corresponding letters on your answer scripts. (06 marks)
- i) 2001:0db8:0000:0000:0000:1428:57ab
  - ii) 2001:0db8::1428:57ab
  - iii) 2001::1685:2123::1428:57ab
  - iv) 2001:99:ab:1:99:2:1:9
  - v) 2001:1428:57ab:1685:2123:1428:57ab
  - vi) 2001:0ab9::3::59ff:1ac5
- e) What is IPv6 over IPv4 tunneling? (04 marks)
- 4) Login to the university Course Management System (CMS) and download the **CST451-2\_EXAM.pka** file. After completing the activity, save the answer file and upload it again to the Course Management System. (25 Marks)

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