Students with lastname starting from R to S

CS5840 - Design of Access, Metro, and Core Networks
2nd assignment – due on Saturday November 7, 2020

For each possible answer, mark T(rue) or (F)alse on the left of the arrow (up to 8 points)
A correct answer scores +1 point, a wrong answer scores -0.2, a blank answer scores 0

Question. Asymmetric Digital Subscriber Loop (ADSL)

TRUE ✓ → is a broadband data access technique re-using the twisted pair used for PSTN

FALSE ✗ → exploit the twisted pair pass-band above the PSTN band in following order from lower frequencies to higher frequencies: PSTN voice, ADSL downstream, ADSL upstream

FALSE ✗ → Multiplexes in the time domain PCM voice (64kb/s) and ADSL data (640kb/s up to 20 Mb/s)

TRUE ✓ → Has a speed that may depend on the distance of the user from the central office

Question. Multi protocol Label Switching (MPLS)

FALSE ✗ → Is connection-less cell transfer mode based on the use of fixed-size cells

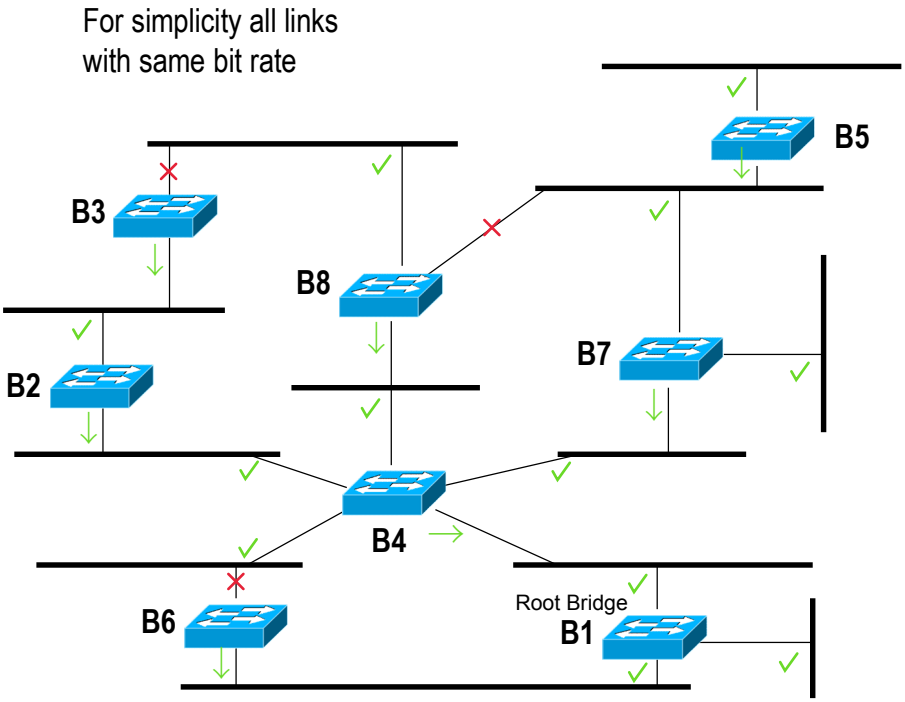
TRUE ✓ → May use multi-level hierarchy for identification of the virtual circuits.

TRUE ✓ → Supports the set-up of explicitly (source) routed label switched paths

TRUE ✓ → Is nowadays especially useful for implementing traffic engineering in IP networks

EXERCISE (up to 12 points)

Consider the following Layer-2 network (for simplicity all links have the same bit rate): find the spanning tree by mark root ports (with an arrow), designated ports (with a tick) and blocked ports (with a cross).



PLAGIARISM STATEMENT

I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication. I also certify that this assignment/report has not previously been submitted for assessment in any other course, except where specific permission has been granted from all course instructors involved, or at any other time in this course, and that I have not copied in part or whole or otherwise plagiarised the work of other students and/or persons. I pledge to uphold the principles of honesty and responsibility at CSE@IITH. In addition, I understand my responsibility to report honour violations by other students if I become aware of it.

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