

OLLSCOIL NA hÉIREANN
THE NATIONAL UNIVERSITY OF IRELAND
COLÁISTE NA hOLLSCOILE, CORCAIGH
UNIVERSITY COLLEGE, CORK

Summer Examinations (Sample)

Computer Science
CS2510: Web Servers

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Answer *all* questions

Paper Total: 80 Marks

Time: 1.5 Hours

1. Internet Infrastructure & Protocols

- (a) Specify the essential principles of the TCP/IP protocol. *[5 Marks]*
- (b) What are the strengths and weaknesses of TCP/IP? *[5 Marks]*
- (c) How is TCP/IP related to protocols such as SMTP and FTP? *[5 Marks]*
- (d) What are *ports* in modern computer systems, and how are they implemented? *[5 Marks]*

2. Installing Apache

- (a) What methods of installation can be employed for the Apache webserver? What benefits does each method have? *[5 Marks]*
- (b) If you wished to install an experimental Apache webserver alongside a fully functioning version, how would you go about it? *[5 Marks]*
- (c) How would you check that an installed Apache webserver is properly running? *[5 Marks]*
- (d) What function do the *httpd.conf* and *.htaccess* files serve? How do they differ? Why do some webserver administrators frown on the use of *.htaccess* files? *[5 Marks]*

3. Configuring Apache

- (a) What different strategies exist for supporting multiple hosts? [5 Marks]
- (b) Suppose an enterprise wished to have a publically-available website on the internet, with a set of intranet pages available only from within that enterprise. How might this be achieved? [5 Mark]
- (c) How can a webserver be made browser-aware, i.e. be aware of which browser is sending it a request for service?. [5 Marks]
- (d) What is the difference between directives that are *core*, *MPM*, *extension*? [5 Marks]

4. Installing from Source

- (a) What are the primary steps involved in installing Apache from source? [5 Marks]
- (b) What advantages/disadvantages does this installation method have? [5 Marks]
- (c) What are the primary steps involved in installing an Apache module?. [5 Marks]
- (d) What Apache modules would you consider to be necessary in a webserver? [5 Marks]