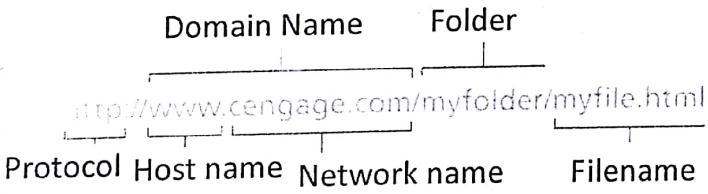
2018/11/27

Introduction to Computer Science
Second Midterm Test

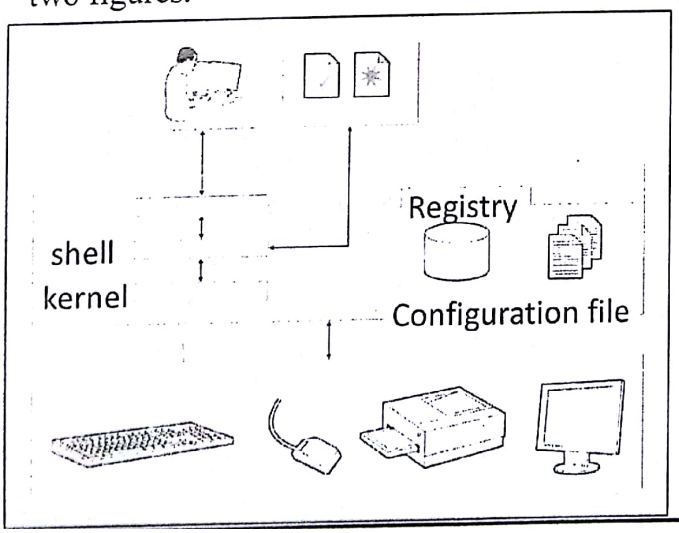
A. **Close the sentence:** (20%)

1. The ____ protocol establishes a virtual circuit with the destination computer to transmit packets.
2. The ____ protocol allows assigning each computer an IP address automatically every time it's started.
3. With ____, a packet can be sent on another line if the original line is damaged or busy.
4. Domain names are mapped to IP addresses by a special computer called a(n) ____ server.
5. The ____ protocol is often used to allow multiple computers to share one Internet connection.
6. The ____ server is just a computer programmed to respond to HTTP requests.
7. ____ has become the standard for transferring data via the Internet.
8. Interface programs that allow a computer to interact with peripheral devices are called ____.
9. The ____ is the core of the OS.
10. Coordinated execution of a process, using two or more CPUs at the same time is known as ____.
11. Time ____ is a method of allocating fixed time units to running processes in multitasking.
12. All programs and processes running on a computer are stored in ____.
13. The only language the computer understands is ____, consisting of 1s and 0s.
14. The result of a _____ is an executable file.
15. _____ is a readable description of an algorithm written in human language.
16. Operator _____ controls the order in which operations are executed.
17. The four basic types of control structures used in most high-level programming languages are: _____, _____, _____, and _____.

B. Give the correct explanation of the terms in the two figures. (12%)



C. Give the correct explanation of the terms in the two figures. (8%)



D. Give the full name of the terms in detail: (20%)

1. **HTTP.**
2. **TCP/IP.**
3. **DNS.**
4. **HTML.**
5. **SMTP**

E. Your mail client can receive e-mails by two protocols, the Post Office Protocol version 3 (POP3) and the Internet Message Access Protocol (IMAP). What are the difference between these two protocols? (10%)

F. Please use your language (English or Chinese) to write a **pseudocode** that reads an integer and determines and prints whether it is odd or even. [Hint: Use the modulus operator.] (10%)

G. A program has **only two** integer variables ***n1***, ***n2***, and has the following interactions with users: (10%)

Please type in two integers separated by space:
45 49 //(user input)
The sum of the two integers is: 94

Please uses three statements (three only, no more) to implement the operations. (hint: **cascading**)

H. Please find out all the **errors** in the following program. (10%)

```
// Calculate the product of three integers
#include <iostream> ;
using namespace std;
/function main begins program execution
int main()
{
   int x; y; z;    // integers to multiply
   int result; // the product of the three integers
   cout << "Enter three integers: "; // prompt
   cin >> x >> y << z; // read three integers
   result = x * y * z; // multiply the three integers;
   cout << 'The product is ' << result << endl;
   return 0.0;
} // end function main
```

某投票所內: ~ (0%)

前面的阿伯在圈票處探出頭來問選務人員
借問一下
我的票怎麼沒有韓國瑜？
選務：阿伯，這台南啦...