1. Which of the following is/are example(s) of distributed systems?
    a. Web browser
    b. E-commerce platforms
    c. Amazon Web Services
    d. Email

Ans: b and c

2. Consider the `fork()` system call in Unix-based operating systems. How many processes are created from the following executions of the `fork()` system call?

```
int main() {
      fork();
      fork();
      return 0;
}
```

    a. 2
    b. 4
    c. 6
    d. 8

Ans: b

3. What is the output of the following piece of code written in C programming language?

```
int swap(int a, int b) {
      int temp;
      temp = a;
      a = b;
      b = temp;
}

int main() {
      int x = 10, y = 20;
      swap(x, y);
      printf("%d %d", x, x);
      return 0;
}
```

    a. 10 20
    b. 20 10
    c. 10 10
    d. 20 20

Ans: c

4. Which of the following network protocols is used to get the MAC address of a network interface from its IP address?
    a. DNS
    b. ARP
    c. RARP
    d. TELNET

   Ans: b

5. Consider that the IP address of a network is 202.141.80.20 and the subnet mask is 255.255.255.0. How many hosts are supported by this network?
    a. 256
    b. 254
    c. 128
    d. 126

   Ans: b

6. Which of the following is/are used in operating systems to solve the mutual exclusion problems for critical sections?
    a. Semaphore
    b. Spinlocks
    c. Process states
    d. Deadlock detection

   Ans: a and b

7. What is Belady's anomaly?
    a. Increase in a process's time quanta will increase in deadlock possibility
    b. Increase in a process's time quanta will decrease in deadlock possibility
    c. Increase in the number of pages will increase the page fault
    d. Increase in the number of pages will decrease the page fault

   Ans: c

8. What is the default port address for HTTPS?
    a. TCP port 8080
    b. UDP port 80
    c. TCP port 443
    d. UDP port 443

   Ans: c

9. Which of the following IP addresses cannot be used to host a web server that needs access from a public Internet?
    a. 202.141.80.9
    b. 10.10.178.2
    c. 152.58.9.9
    d. 8.8.8.8

    Ans: b

10. What is the purpose of the `connect()` system call?
    a. To accept an incoming TCP connection
    b. To accept an incoming UDP connection
    c. To create a TCP connection to a given IP address/Port
    d. To create a UDP connection to a given IP address/Port

    Ans: c