Answer Submitted.

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Course outline

About NPTEL ()

How does an NPTEL online course work? ()

Week 0 ()

● **Practice: Week 0 : Assignment 0 (assessment? name=171)**

Week 0 : Assignment 0

Your last recorded submission was on 2025-01-19, 16:59 IST

1)

What will be the output of the following C code?

```c
#include <stdio.h>
int increment(int *x) {
    return *x++;
}
int main() {
    int arr[] = {10, 20, 30};
    int temp = increment(&arr[0]);
    printf("%d", temp);
    return 0;
}
```

a. 10
b. 11
c. 20
d. 21

1 point

○ a.
○ b.
○ c.
○ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
a.

2)   **1 point**

Which of the following scheduling algorithms can lead to starvation in an operating system?
    a. Round-robin
    b. Shortest Job Next (SJN)
    c. Priority scheduling
    d. None of the above

☐ a.
☑ b.
☑ c.
☐ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
b.
c.

3)   **1 point**

Which of the following system calls is used to change the current working directory of a process in a Unix-based operating system?

    a. rmdir()
    b. getcwd()
    c. mkdir()
    d. chdir()

○ a.
○ b.
○ c.
◉ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
d.

4)   **1 point**

Which of the following IP addresses belongs to a private address range?

    a. 172.16.0.1
    b. 192.0.2.1
    c. 203.0.113.10
    d. 10.10.1.1

☑ a.
☐ b.
☐ c.
☑ d.

Yes, the answer is correct.
Score: 1

Accepted Answers:
a.

d.

5)   **1 point**

What will be the output of the following C code in a 32-bit/64-bit system?

```c
#include <stdio.h>

int main() {
    int arr[10];
    printf("%lu", sizeof(arr));
    return 0;
}
```
    a. 10
    b. 100
    c. 40
    d. 4

○ a.
○ b.
◉ c.
○ d.

Yes, the answer is correct.
Score: 1

Accepted Answers:
c.

6)   **1 point**

In a memory management system that utilizes paging, the address space of a process is divided into fixed-size units called _____. The equivalent units in physical memory are known as _____.

    a. Segments, Blocks
    b. Frames, Pages
    c. Pages, Frames
    d. Pages, Segments

○ a.

○ b.

◉ c.

○ d.

Yes, the answer is correct.
Score: 1

Accepted Answers:
c.

7)   *1 point*

Which of the following statements about virtual memory in an operating system are true?

    a. Virtual memory allows a process to use more memory than is physically available.
    b. Virtual memory uses disk space to simulate additional RAM.
    c. In a system with virtual memory, all processes are allocated the same amount of physical memory.
    d. Virtual memory eliminates the need for paging.

☑ a.

☑ b.

☐ c.

☐ d.

Yes, the answer is correct.
Score: 1

Accepted Answers:
a.
b.

8)   *1 point*

Which of the following pairs correctly match network services with their associated port numbers?

    a. Port 443 - HTTPS and Port 22 - FTP
    b. Port 22 - FTP and Port 53 - DNS
    c. Port 80 - HTTP and Port 21 - FTP
    d. Port 443 - HTTPS and Port 53 - Telnet

○ a.

○ b.

◉ c.

○ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
c.

9)   ***1 point***

To keep a hash table in memory and save it to a file for later use, which of the following combinations is correct?

   a. `malloc()` to allocate memory and `fork()` to store data.
   b. `calloc()` to allocate memory and `read()` to retrieve the data.
   c. `malloc()` to allocate memory and `open()` to create a file.
   d. `malloc()` to allocate memory and `write()` to store data in a file.

  ○ a.
  ○ b.
  ○ c.
  ◉ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
d.

10)   ***1 point***

You are given the IP address 192.168.0.0/24 and need 6 subnets, each with at least 30 usable IP addresses. Which subnet mask should you use?

   a. 255.255.255.240 (/28)
   b. 255.255.255.224 (/27)
   c. 255.255.255.192 (/26)
   d. 255.255.255.248 (/29)

  ○ a.
  ◉ b.
  ○ c.
  ○ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
b.

Check Answers and Submit

Your score is: 10/10