OPERATING SYSTEM

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20K-0477

ASSIGNMENT #01

Question #01

i) At Home:
Computers, Mobile phone and Laptop.

ii) At Office:
Computers, Mobilephones, Server Machines and Laptop

iii) During Commute:
Mobilephones, Laptops.

Question #02

i) At Home:
Decentralized System because of not depending on central System each node is independent.

ii) At Office:
Centralized System because of mostly organisation use client/server model in which central server machine controls everything.

iii) During Commute
Decentralized System.

Question #03

i) At Home:
Single core or Multi core depending on number of people and their usage.

ii) At Office:
Multi core processing due to workload and

and to increase efficiency and for no risk of failure symmetric processing invillbe used.

Question # 04 :

i) AT HOME :

For daily life routine and work, Personal computing is best such as Laptop & PC's.

ii) AT OFFICE :

As for large scale environment and number of people and their usage distributed computing environment is helpful. As there a multiple users that work Independedly, connected through network.

iii) DURING COMMUTE :

During commute personal computing is best because of single tasking and less workload.

Question #05 :

i) AT HOME :

Bank application to pay bills and money transaction online rather then going Banks.

ii) AT OFFICE :

- Loan application process good automation for banks
- Trade Firence application involves multiple parties coordination and ensuring delivery of goods.

20K-CE477

QUESTION # 06

Driver Behaviour API :
→ For Speed checking
→ Horsh acceleration or brakes.

MULTMEDIA API :
→ to connect bluetooth and cable devices.

Question #07

(i)

Rasberry PI	ARDUINO
It can perform multiple task simultaneously due to its powerful processing and Linux based OS.	It is used for running single task.
NOS required to boot.	No OS required.
All necessary components are there RAM, Processor and storage etc.	It contain hardware for power and data.
It is closed sore. not available for general use	It is open sowre.

Question # 087 :   (ii)

IOS	ANDROID
IOS has Swift proprietary language design for app development	Android relies on Java or Kotlin as alternative
IOS app are easier to create then android one	Difficult tor create apps.
IOS developers used proprietary Xcode tools.	Android developers used Android Studio.
Provides Bugs fixing tools and easy to get arraind	This integrated development has cross platform, high readability and debugging features.
IOS application relies on View controllers.	Android apps are developed using partitioned .

Question # 08 :

Application compiled on one operating system are not executed on other operating system. Each operating system provides a unquen set of system calls. Even if system calls are writtor other barriers would make it difficult to execute application on different operating system. The application execution is directly linked to to services provideid by os. This makes dependency on OS.

Date: _____

Question # 07:　　　(iii)

EMULATION	SIMULATION
Means complete immitation of real thing.	Means copying thing from real world into virtual environment
It operates in virtual environment instead of real world.	It simulates the basic behaviour but doesnot follow necessary rules of real environment
Written in machine language & assembly language	Written in high level language
Slower	Faster
EXAMPLE: Debugging	EXAMPLE: Automation testing

Question # 09:

INTELLIGENT SHOPPING

In this application, there should be mobile phone devices at entrances for each user that should log in to its account and scan QR code of product and generating bills. A multi processor is used to perform various task generating Bill etc These devices are connected to main central computer which accepts and approved bills and select payment via online. Communication is done wireless.