Mid Semester Assignment, Course: - Mobile Computing

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Class and Section: BS(CS) 5th SEMESTER

Question1: Explain why wired networks have higher bandwidth in comparison to mobile networks.

Answer: wired networks is the physical medium consisting of cables. wired networks is suitable and higher bandwidth because in wired the signals is moving from one point to another point directly without any error while in mobile networks there is no wire between them. Mobile networks is wireless networks and mostly the signals are exist.

Question2: Explain the relation between miniaturization and portability.

Answer: **MINIATURIZATION:**

Creating new and significantly smaller mobile form factors that allowed the use of personal mobile devices while on the move.

PORTABILITY:

Reducing the size of hardware to enable the creation of computer that could be physically moved around relatively easily.

Question3: Differentiate between convergence and divergence.

Answer: **CONVERGENCE:**

Integrating emerging types of digital mobile devices, such as Personal Digital Assistants (PDAs), mobile phones, music players, cameras, games, etc.

DIVERGENCE:

Opposite approach to interaction design by promoting information appliances with specialized functionality rather than generalized once.

Question4: Suppose you are given the task of designing an app for mobile devices which has the capabilities of text chat, recorded audio message, and live video conferencing. Explain which protocol out of UDP and TCP would you use for each type of service and why?

Answer: we are using the IP(Internet Protocol) instead of UDP and TCP because we have to deliver or receive text, audio and video in packets with the help of OSI model.

Question5: Suppose you have the choice of using 2G, 3G, 4G, 5G, Wi-Fi and Satellite networks. Which of these technologies will you use in the following scenarios and why.

(18)

a) A city wide network with voice, SMS services and Internet services good enough for ultra-high definition streaming and video conferencing.

Answer: In this scenarios we will use 4G because 4G is the best network for live streaming like video conferencing, Internet services and the other two voice and SMS services.

b) A city wide network with only voice and SMS services.

Answer: For only voice and SMS service the 2G is suitable but for more accurate result 3G is most suitable network for this scenarios.

c) A city wide network with voice, SMS services and Internet services good enough for normal definition streaming and video conferencing.

Answer: For normal streaming 3G is best network for it and easily its work and very suitable for this scenarios.

d) A global scale network with voice, SMS and Internet services.

Answer: The Satellite networks is basically for the Global services and the other networks is not accurate for this scenarios. So there for the satellite is most acceptable.

e) A campus size network for information and resource sharing between 200 end devices.

Answer: For the sharing resource in a campus or any institute the WIFI network is good because the sharing will easy for the 200 end devices from the WIFI network.

f) **A city wide network with voice, SMS and basic Internet services.**

Answer: For the basic Internet service the 5G is suitable for it. Because the basic Internet wants more faster network for access their data.