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Program & section : BS .SE 8TH Sem , sec B

Paper : Mobile computing

Date : 24 June 2020

Q1: **Provide the names of 4 challenges that exist in Adhoc Networks.**

Answer :

There are many challenges in design, deployment, and performance of ad hoc

• Medium access scheme;

• Routing and multicasting;

• Transport layer protocol;

• Pricing scheme

• Scalability;

• Deployment considerations

Q2: **How the nodes in the Adhoc Network know about the changing network topology.**

Answer :

Each node maintains routing table having information about network topology . this routing table updates periodically when networks topology changes .

Q3: **Why is it important to minimize flooding of control packets in Adhoc Networks and how MPR achieves it?**

Answer :

This factor if not well controlled can lead to increasing packets loss the objective of MPR is to reduce the number of flooding MPR achieves it by multipoint rely minimize the flooding of packet in the network by reading duplicate transmission in the same region .

Q4: **Explain briefly how Mobile Cloud Computing is different than simple mobile computing and simple cloud computing?**

Answer :

Cloud computing use distributed networks to process data while mobile computing the user can access the internet using browsers and transfer different kinds of data using satellites.

Mobile computing is a consumer or user facing technology while cloud computing is a business or company facing technology. Cloud computing is aimed at enterprise.

Both cloud computing and mobile computing use wireless service to transmit data

Q5: **Explain the term MBaas in your own words?**

Answer 5:

MBaas is also called backend as a services which provides a way to mobile and web developers to link their applications to backend cloud storage and APIs used by backend applications it also providing features such as user management and push notification.

Q6: **Imaging you visit a completely new city. What kind of services a modern LBS can provide you at your location automatically?**

Answer 6:

The Global positioning system GPS is a satellite based navigation technique that is used worldwide because of widespread coverage it can be used to track the position if the mobile GPS is enabled. LBS allow user to receive services based on their geographic information about restaurants, stores and so on.

Q7: **Use your imagination as to how the following context can be used by a context aware application in mobile computing environment?**

Answer 7:

Date/Time:-

Context date and time should be use by the user they are automatically update on the bases of GMT where they are located in different countries they have different time.

Environment:-

Environment is dependent on technology for activity logs in mobile computing environment changes without user intervention.

Emotional state:-

Emotions in general can overwhelm the human body, which responds through various signals that are *manifested* in physical and physiological forms. Physical responses include facial expressions, voice intonation, gestures, and movements, whereas physiological response indicators relate to respiration, pulse rate, skin conductance, body temperature, and blood pressure

Focus of attention:-

This context we should need to provide and renew the old version with latest updated

Version to remove unlike feature or make them more efficient in the applications

Orientation:-

The context focus on the movement of phones like screen rotation.

User preferences:-

This context should be use to save user data to show that data in different activities of mobile application.

Calendar (events):-

This context is used by mobile applications even for events to get notification when that event is happen that is very helpful to remember the coming events or save the recent event for next year.

Browsing history:-

This context is used in mobile as well as desktop to access useful and recent information in less time or even access to bookmarks where we can save the important websites to access them easily.

Q8: Explain why energy efficiency is important in technologies like Bluetooth and ZigBEE?

Answer 8:

Universal radio interface for wireless connectivity energy efficiency is important because it is use for data transmission over wireless network if that devices is not efficient the result of data transmission will not be accurate. Bluetooth has high speed low energy.

Q9: Explain briefly how you use RFID technology at INU on a daily basis when present on the campus? Do you use an active or passive tag?

Answer 9:

We will use RFID for item tracking at INU on daily basis when present on the campus. We will use active RFID for item tracking because its required low signal strength and high range then passive.

Q10: **Explain how Wearable Computing can be employed in computer gaming?**

Answer 10:

Wearable computing can be employed in computer gaming through augmented reality which overlying virtual information on real world this realities enhance the senses.

Q11: **What kind of facilities and technologies must be present in order to call you own home a Smart Home?**

Answer 11:

Smart floors:-

Fall detections to avoid death rate because of fall floors.

Smart toilet:-

determine how many times a person go to bathroom in the night time. Analyze of urinary salt and send result to computer trough LAN. Analyze blood sugar level, body weight, and fat percentage.

ECG chair:-

ECG waveforms can be obtain using electrodes fixed on a chair or in the bed and measurement obtain without direct contact with the skin

Medication reminder:-

Patient with chronic disease do not follow physician medication and lifestyle regimens, 9 out of 10 make mistakes when taking the medicine. We should need to provide a reminder to avoid this mistakes.