

## Candidate Problems for Mid-term Examination

2011. 11.2

1. Telco진영과 Internet진영의 싸움에서 승리한 측은 어디이며, 그 원인은? (Which side has been won in the battle between Telco and Internet? What is the winning reason?)
2. NGN을 위한 critical issue는 무엇인가? (What are the critical issues for NGN?)
3. List up the NGN Services according to the Tiers (layers) such as Core Services, Network Services Capabilities (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Clustering)!
4. Define the Incremental design and the Clean-slate Design for Future Internet.
5. Describe the basic problems of the current Internet.
6. Describe the technical trend of information system towards Internet Singularity.
7. Describe the new design themes for designing sensor networks.
8. What are the software requirements for WSN?
9. Describe the typical applications for WSN?
10. Explain three generic features of ubiquitous computing.
11. Explain the roles of three participants in WSN.
12. Explain the *Interaction patterns* between sources and sinks classify application types.
13. Explain types of the Sensor deployment.
14. Describe the Characteristic and Requirements for WSNs.
15. Describe the Required Mechanisms to Meet Requirements
16. Describe the Enabling Technologies for WSN.
17. Explain the Zigbee Protocol Stack.
18. List up and explain main components of the wireless sensor network (WSN) node
19. List up the main factors and explain those what cause the energy problems in Requirements for energy-efficient MAC protocols
20. Explain principles of the Schedule-based and contention-based MAC Protocols
21. Explain the principle of ALOHA and Slotted ALOHA
22. Explain the hidden and exposed terminal problems
23. Explain Protocols of the S-MAC and B-MAC.
24. Explain the LEACH