

Module 1

- 1) What is mobile computing and explain its components. (5m)
- 2) Explain Telecommunication generation difference between them (5m) (10m)
- 3) What is cellular system (5m)
- 4) Explain electromagnetic spectrum with its application (10m)
- 5) Explain Antenna with its type (5/10m)
- 6) Explain Signal propagation and its problem (10m)
- 7) Define signal with characteristics (5/10m)
- 8) Explain multiplexing and its type (10m)
- 9) What is spread spectrum and explain types of it. (DSSS & FHSS) (10m)
slow Fast

Module 2

- 1) Explain GSM mobile Services (5m)
- 2) Explain GSM architecture (10m)
- 3) Explain Radio interfaces in GSM (5m)
- 4) Explain GSM protocol stack. (10m)
- 5) Explain localization ^{7step} and calling process ^{10steps} (10m)
- 6) Explain handover and types of it (10m)
- 7) Explain GSM security algorithm (10m)
- 8) Explain GPRS system architecture (10m)
- 9) Explain GPRS protocol stack (10m)
- 10) Explain UTRAN system architecture (10m)

3rd Module

- 1) Explain MAC protocol (5m)
- 2) Give difference between internet protocol and transport layer (2 or 5 m)
- *3) What is Mobile IP and Explain its process (2/5/10 marks)
- *4) Explain Reverse tunnelling (2/5 marks) IMP
- *5) Explain Mobile TCP (10 marks)
- *6) Explain indirect tcp, snooping tcp, and mobile tcp (2 marks each)

4th Module

- *1) Explain infrastructure and adhoc network (5m)
- 2) Explain IEEE 802.11 system architecture (5/10 m)
- 3) Explain IEEE 802.11 prototype architecture (5/10 m)
- *4) Give diffⁿ between 802.11 A and 802.11 B (5m)
- *5) Write short note on wifi security (5m)
- *6) Write short note on wireless lan threads (5m)
- *7) Explain WEP, WPA (2/5 m)
- *8) Explain bluetooth and ~~Ax~~^{its} 2 topology (piconet and scatternet) (2/5/10 m)
- *9) Explain bluetooth architecture (5/10 m)
- 10) Explain bluetooth protocol stack (5/10 m)

5th Module

- * 1) Explain mobile ip optimization (5/10 m)
- 2) Write short note on ip V6 (5m)
- * 3) Explain different approaches used in macro mobility (MIPv6, FMIPv6) (2/5 m)
- * 4) Explain different approaches used in micro mobility (Cellular IP, HAWAII, HMIPv6) (2m for each / 5 m)

6th Module

- i) Explain LTE (5 m)
- * ii) VoLTE (2/5 m)
- * iii) SAE architecture (5/10 m)
- iv) 2G, 3G, 4G, 5G, (5/10 m)

For Each Module Marks

Module 1	- 15 m
Module 2	- 30 m
Module 3	- 25 m
Module 4	- 15 m
Module 5	- 25 m
Module 6	- 10 m