

2	(a) Draw and explain the full functional architecture of GSM system in detail.	8
OR		
	(a) (i) Explain Subscriber Authentication in GSM with diagram.	5
	(ii) Discuss Advantages and Disadvantages of cellular systems.	3
	(b) Explain GPRS Architecture in detail with necessary diagrams.	7
OR		
	(b) (i) Explain Traffic Channel (TCH) and Control Channel (CCH) of GSM.	5
	(ii) What is Uplink and Downlink in FDMA ?	2
3	(a) Explain Inter-BSC, Intra-MSC type of Handover with time lines in detail.	6
OR		
	(a) Explain Message flow for MTC and MOC.	6
	(b) Explain the following : (any three)	9
	(i) Various problems which can be associated in Wireless communication.	
	(ii) SDM, FDM, TDM	
	(iii) Signal Propagation Ranges and Path loss of radio signals.	
	(iv) Location Dependent Services	
	(v) Bearer and Teleservices of GSM.	
4	(a) Answer the following :	10
	(i) Define inclination angle and elevation angle in satellite systems.	2
	(ii) Give disadvantages of fast retransmit/fast recovery for mobile TCP.	2
	(iii) List out layers of WAP architecture.	2
	(iv) Give two advantages of Radio Transmission.	2
	(v) Give advantages of GEO.	2
	(b) (i) Explain destination sequence distance vector in mobile adhoc network.	5
	(ii) Explain Cellular IP with respect to mobile IP.	5

- 5 (a) (i) Explain architecture of HAWAII with diagram. 6
(ii) What is tunneling and encapsulation ? 2
- OR**
- (a) Name the inefficiencies of Mobile IP regarding data forwarding from correspondent node to a mobile node. What are optimizations and what additional problems do they cause ? 8
- (b) Explain I-TCP in detail. 5
- OR**
- (b) (i) Explain routing in mobile adhoc network. 5
(ii) What is selective retransmission ? 2
- 6 Attempt any **three** : 15
- (i) Explain different types of satellite orbits
 - (ii) Explain registration process in mobile IP.
 - (iii) Explain S-TCP in detail
 - (iv) Explain WDP in detail
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