BE | CMPN | VII (Rev) 25/5/12
Mobile Computing

Con. 3933-12. **(REVISED COURSE)** **GN–6296**

(3 Hours) **[Total Marks : 100**

N.B. (1) Question No. **1** is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.

1. (a) List the entities of mobile IP and describe data transfer from a mobile node to a fixed node and vice versa. **5**
   (b) What advantages does the use of IPV6 offer for mobility ? **5**
   (c) How much of the original GSM network does GPRS need ? Which elements of the network perform the data transfer ? **5**
   (d) What is Hidden and Exposed terminal problem ? Discuss solutions to these problems. **5**

2. (a) Explain how the power management is done in IEEE 802.11 infrastructure based and adhoc networks. **10**
   (b) Draw and explain architecture of GPRS network. **10**

3. (a) Explain IP-in-IP, minimal and Generic encapsulation. Also discuss their merits and demerits. **10**
   (b) Explain snooping TCP and mobile TCP with their merits and demerits. **10**

4. (a) Why is routing in multi-hop adhoc networks complicated ? What are the special challenges ? **10**
   (b) What characteristics do the different orbits have ? What are their pros and cons ? **10**

5. (a) Explain Bluethooth protocol stack with neat diagram. **10**
   (b) What are the functions of Authentication and Encryption in GSM ? **10**

6. (a) Explain WATM reference model with several access scenarios. **10**
   (b) What are the main benefits of Spread Spectrum system ? Explain direct sequence spread spectrum in detail. How can DSSS systems benefit from multipath propagation ? **10**

7. Write short notes on any **four** of the following :— **20**
   (a) Mobile agents
   (b) UMTS architecture and its domain
   (c) WML
   (d) CDMA
   (e) HIPERLAN.