



Name : .....  
Roll No. : .....  
Invigilator's Signature : .....

**CS/M. TECH (ECE-OLD)/SEM-2/MC-204A/2012**

**2012**

**MOBILE INTERNET AND AD HOC NETWORKS**

*Time Allotted : 3 Hours*

*Full Marks : 70*

*The figures in the margin indicate full marks.*

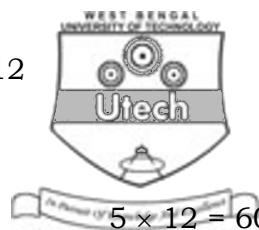
*Candidates are required to give their answers in their own words  
as far as practicable.*

**GROUP – A**

Answer any *five* questions :  $5 \times 2 = 10$

1. Define the following terms with two or three sentences :

- a) UMTS
- b) Wi-Fi
- c) GPRS
- d) WLAN
- e) EIRP
- f) ISDN
- g) MANET.



**GROUP – B**

Answer any *five* questions :  $5 \times 12 = 60$

2. What are the fundamental features of Bluetooth technology ?  
Why is it so named ? List and briefly define bluetooth  
baseband logical channels. What security services are  
provided by Bluetooth ? 2 + 1 + 5 + 4
3.
  - a) Discuss the IMT 2000 technology.
  - b) How is GPRS more advantageous than that of HSCSD ?
  - c) Explain the near and far terminal problem. 4 + 4 + 4
4. Give a full account of IEEE 802.11 wireless data network. 12
5.
  - a) Give a brief idea on GSM system architecture.
  - b) Discuss about the function of broadcast channels. 8 + 4
6.
  - a) Briefly define four application areas for wireless LAN.
  - b) What are the advantages and disadvantages of infrared  
LAN ?
  - c) How does Authentication protect the GSM network  
against unauthorized access ? 6 + 3 + 3
7.
  - a) List the capabilities provided by mobile IP.
  - b) Describe the tunneling process in mobile IP protocol  
with diagram.
  - c) What is MANET ?
  - d) Write down the advantages and disadvantages of  
MANET. 2 + 5 + 2 + 3



8. Write short notes on any *two* of the following : 6 + 6

- a) Mobile operating system
- b) IS95
- c) Bluetooth
- d) Handoff in the context of mobile communication.

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