



K19P 0008

Reg. No. : .....

Name : .....

**Fifth Semester M.C.A. Degree (Reg./Supple./Imp.)**  
**Examination, January 2019**  
**(2014 Admission Onwards)**  
**Elective – IV : MCA 5E 13 : MOBILE COMPUTING**

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer **any ten** questions from Section – A. Each question carries **three** marks.  
2) Answer **all** questions from Section – B. Each question carries **ten** marks.

**SECTION – A**

**Note :** Answer **any ten** questions. Each question carries **three** marks.

1. What are the goals of mobile computing ?
2. What are the limitations of Bluetooth ?
3. How to distinguish between authentication and security in GSM ?
4. Explain advantages of GPRS over GSM.
5. Write a note on handover procedure in GSM.
6. What are LLC, RLC and MAC in GPRS ?
7. What are the significant features of media gateway in mobile computing ?
8. Mention the basic capabilities of mobile IP.
9. List the advantages of third generation wireless networks.
10. What are the capabilities of WML script ?
11. What is Wireless Application Environment ?
12. List the applications of VoIP.

(10×3=30)

P.T.O.

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SECTION – B

**Note :** Answer **all** questions. **Each** question carries **ten** marks.

13. a) Discuss the classification of mobile computing with various applications. 10  
OR  
b) Explain in detail about the design considerations for mobile computing. 10
14. a) i) Explain the requirements of Mobile IP. 5  
ii) Explain the merits and demerits of satellite communication systems. 5  
OR  
b) With a neat diagram, explain protocol stack of Bluetooth. 10
15. a) Draw the functional architecture of a GSM system. Explain the various subsystems. 10  
OR  
b) Explain the protocol architecture of the transmission plane for GPRS. 10
16. a) With a neat diagram explain the WAP architecture. 10  
OR  
b) i) Explain the basic features those are included in WML. 5  
ii) Write a short note on 802.11 standards. 5
17. a) Compare the various features of voice over IP and mobile voice over IP. 10  
OR  
b) Write a note on the following.  
i) Voice over WLAN. 5  
ii) SIP in mobile computing. 5