M. SC. (COMPUTER SCIENCE) SEM – III (CHOICE BASED CREDIT & GRADE SYSTEM) : SUMMER - 2018

SUBJECT : MOBILE TECHNOLOGIES

Day : **Monday**
Date : **23/04/2018**

Time : **03.00 PM TO 06.00 PM**
Max. Marks : 60

S-2018-0929

N.B. :

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw diagrams **WHEREVER** necessary.

Q.1 **a)** What is GPRS? Explain its working and also state its features. **(08)**

b) Explain the transition of mobile phone From 1G to 3G. **(07)**

OR

a) Explain the concept of tunneling and encapsulation used in mobile IP. **(08)**

b) What is MAC? Explain : i) hidden and exposed terminals **(07)**
ii) near and far

Q.2 **A)** Answer **ANY ONE** of the following: **(08)**

i) Explain the working of Indirect TCP with necessary diagram.
ii) What are the goals, assumptions and requirements of mobile IP? Explain.

B) Answer **ANY ONE** of the following: **(07)**

i) Explain the adhoc routing protocols.
ii) With neat diagram explain SMS architecture.

Q.3 Answer **ANY THREE** of the following: **(15)**

a) Explain the purpose of following optimizations in TCP.
i) Fast retransmission / Recovery
ii) Timeout Freezing
iii) Transaction oriented TCP
iv) Selective retransmissions

b) What is snooping TCP? State its advantages and disadvantages.
c) Compare TDMA and FDMA.
d) Explain the pro's and con's of wireless messaging.
e) What improvements are needed in TCP for 2.5/3G networks?

Q.4 Write short notes on **ANY THREE** of the following: **(15)**

a) Features of WML
b) Persistent storage
c) CLDC and MIDP
d) Agent discovery
e) IPv6 in mobile IP

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