

SV - 467

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Seat No.	
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**B.E. (E&TC Engg) (Part - IV) (Semester - VIII) Examination,
May - 2018**

WIRELESS MOBILE COMMUNICATION (Revised)

Sub. Code : 67817

Day and Date : Monday, 07 - 05 - 2018

Total Marks : 100

Time : 02.30 p.m. to 05.30 p.m.

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Assume suitable data if necessary.

Q1) Attempt any two [16]

- a) Explain Free Space Propagation Model in Wireless Communication.
- b) What is fading? Discuss fading types along with its causes.
- c) Explain Global Cellular Network Interoperability.

Q2) Attempt any two [16]

- a) A mobile located 5km away from the BS and uses a vertical $\lambda/4$ monopole antenna with a gain of 2.55 dB to receive cellular radio signals. The E field at 1km from transmitter is measured to be 10^{-3} V/m. The carrier frequency used for the system is 900 MHz.
 - i) Find the length and the effective aperture of the receiving antenna
 - ii) Find the received power at the mobile using the Two-ray ground reflection model assuming the $h_t = 50$ m & $h_r = 1.5$ m above ground.
- b) Explain following terms with respect to mobile multipath channels
 - i) Coherence Bandwidth
 - ii) Doppler Spread
- c) Draw and explain Protocol Architecture of SS7.

Q3) Write notes on any three [18]

- a) Signal Penetration into buildings
- b) Rayleigh's fading Distribution
- c) Common Channel Signaling
- d) ISDN

P.T.O.

Q4) Attempt any two.

- a) Explain personal & terminal mobility also the service portability.
- b) Give the details of direct sequence spread spectrum technique.
- c) What are the advantages & disadvantages of WLAN?

Q5) Attempt any two.

[16]

- a) Draw & explain architecture of infrastructure & Adhoc IEEE802.11 (mobile network).
- b) Explain QoS supported by WATM network.
- c) Discuss about the IP packet delivery & registration.

Q6) Write notes on any three.

[18]

- a) Snooping TCP.
- b) Dynamic host configuration protocol (DHCP).
- c) Dynamic routing in mobile adhoc network
- d) IEEE 802.11 MAC frame structure.

