Roll No .....

EC - 8011

B.E. VIII Semester

Examination, June 2016

Advanced Data Networks

(Elective-II)

Time : Three Hours

Maximum Marks :70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each questions are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Why is cell splitting done?
   b) Differentiate Wired Network from Wireless Network.
   c) What is meant by Handoff?
   d) Explain in detail the wireless system security and privacy.

   OR

   Compare and contrast 1G, 2G and 3G cellular system.

2. a) List the challenges faced by WLAN industry.
   b) List the four layers involved in SMS.
   c) List the five major challenges for implementation of wireless LANs that existed from the beginning of this industry.
   d) Explain GPRS system architecture with necessary diagram.

   OR

   Explain in detail the architecture of the 2G GSM system.

3. a) Draw the frame format of IEEE 802.11 physical layer using FHSS.
   b) List the technologies for wireless geolocation system.
   c) What are the MAC services of IEEE 802.11 that are not provided in traditional LAN 802.3?
   d) Explain the architecture and reference model of HIPERLAN-2 in detail.

   OR

   Why IEEE 802.11 standard has two divisions in the MAC layer? Explain in detail about the MAC sub layer.

4. a) When does a WLAN become a WPAN?
   b) Define GPS position location principle.
   c) Define satellite signal acquisition.
   d) Explain how do you take care of interference between Bluetooth and 802.11.

   OR

   Demonstrate the functioning of GPS with neat block diagram.

5. a) What is SDH?
   b) Define Kerr effect.
   c) State the concept of WDM.
   d) Explain the Optical Add/Drop Multiplexing (OADM) configurations.

   OR

   Explain the SONET frame structures and SONET rings with neat diagrams.

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