Code: 9D08104

M.Tech I Semester Supplementary Examinations August/September 2018
PROTOCOL SOFTWARE ENGINEERING
(Computer Networks)
(For students admitted in 2013, 2014, 2015 & 2016 only)

Time: 3 hours   Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1   (a) What is OSI model? Explain.
     (b) Which of the OSI layers handle each of the following:
          (i) Dividing the transmitted bit stream into frames.
          (ii) Determine which route through the subnet to use.
          (iii) What are the reasons for using layered protocols?

2   (a) Explain the components of a protocol specified by formal methods with the help of a neat diagram.
     (b) Briefly explain HOLC protocol.

3   What are the characteristics of architectural design and when describing a system, explain why it is important to design the system architecture before the requirements specification is complete.

4   Explain abstract syntax notation & enunciate the standard ASN encoding rules like basic encoding rules (BER), packed encoding rules (PER).

5   Illustrate security protocol specification languages & network protocol specification languages.

6   (a) Describe finite state machine & explain the concepts of FSM.
     (b) What is conformance testing & why do we need conformance testing.

7   (a) Explain the protocol synthesis technique by using global state transition graph.
     (b) List the concepts of protocol synthesis.

8   (a) Abbreviate the following: (i) PICS. (ii) PI&IT. (iii) OSINET. (iv) ESTELLE. (v) TTU.
     (b) Explain that PI&IT together with PICS forms the basis for a conformance test.

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