Code: 9D08104

M.Tech I Semester Supplementary Examinations February/March 2018
PROTOCOL SOFTWARE ENGINEERING
(Computer Networks)
(For students admitted in 2012, 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) List two ways in which the OSL reference model and TCP/IP reference model are same. And list two ways in which they differ.
   (b) A system has an n-layer protocol hierarchy. Applications generate messages of length M-bytes. At each of the layers, an h-byte header is added. What fraction of the network bandwidth is filled with headers?

2 Explain in detail alternating bit window protocol with the help of diagrams.

3 (a) What are the important points to be considered during the architectural design process?
   (b) Discuss the relationship between non-functional requirements & architectural design process.

4 Describe briefly extended state transaction language and what is its specification.

5 Explain the salient feature of SDL and SDL based protocol specification.

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

8 (a) Abbreviate the following:
         PICS, PIXIT, OSINET, ESIELLE & TTCU.
   (b) Explain that PIXIT together with PICS forms the basis for a conformance test.

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