

R13

Roll No: 5155M

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech II Semester Examinations, August-2014

EMBEDDED NETWORKING

(Embedded Systems)

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 marks = 20

- 1.a) Explain Firewire in detail.
- b) Discuss the differences between USB Bus and CAN Bus.
- c) Define Ethernet. Explain Ethernet Frames.
- d) Define FTP. Explain in detail about FTP working.
- e) Explain Wireless Sensor Networks briefly.

PART - B

5 × 8 marks = 40

2. a) Explain in detail RS232 Standards.
- b) Discuss briefly about SPI.

OR

3. a) Explain briefly the Application Specific Processors in detail.
- b) Explain the concept of Pipelining and various addressing modes in General purpose processors.

4. Explain the concept of Bit stuffing and Types of errors in CAN Bus.

OR

5. Explain briefly a simple application with CAN.

6. Explain the advantages and limitations of Ethernet.

OR

7. Discuss briefly about Ethernet Drivers and controllers.

8. Explain the process to serve web pages with dynamic data.

OR

9. Discuss briefly application of Ethernet in keeping devices and Network secure.

10. a) Explain Key design challenges and applications of wireless sensor networks.
- b) Discuss in detail Data centric routing, storage & retrieval and data gathering with compression.

OR

11. a) Discuss in detail Localization approaches.
- b) Explain in detail Geographical routing and lifetime maximizing energy-aware routing.