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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SECOND SEMESTER M.TECH DEGREE EXAMINATION, APRIL/MAY 2018

Electronics & Communication Engineering
Telecommunication Engineering

01EC6516 Embedded Systems For Communication

Answer any two full questions from each part

Limit answers to the required points.

Max. Marks: 60

Duration: 3 hours

PART A

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|----|---|---|
| 1. | Describe the internal memory organization of PIC microcontroller. | 9 |
| 2. | a. Discuss the I/O ports of PIC microcontroller. | 4 |
| | b. Explain the various processor modes in ARM processor. | 5 |
| 3. | a. Draw the block diagram of an embedded system and explain its components. | 6 |
| | b. Explain the various characteristics of an embedded system. | 3 |

PART B

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|----|--|---|
| 4. | Describe the various building blocks of UML. | 9 |
| 5. | Explain the features of any two serial communication bus protocols. | 9 |
| 6. | Describe the various network protocols used for internet connectivity in embedded systems. | 9 |

PART C

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|----|--|----|
| 7. | Explain the embedded system design process with an example. | 12 |
| 8. | Draw the structure of a kernel and explain briefly the functions of each block . | 12 |
| 9. | a. Explain in detail the various features provided by VxWorks RTOS Kernel. | 6 |
| | b. List down the system level functions of Micro C/OS II. | 6 |