#### UNIVERSITY OF KERALA

## SCHOOL OF DISTANCE EDUCATION

## **ASSIGNMENT TOPICS**

# III<sup>rd</sup> SEMESTER B.Sc. COMPUTER SCIENCE (2018 Admission)

#### **COMPUTER ORGANIZATION & ARCHITECTURE (CS 1341)**

- 1. Explain floating point number representations and its operations?
- 2. Compare RISC and CISC
- 3. Give a detailed study of Pentium Micro Processor
- 4. Write a note on:
  - a) Segmentation
  - b) Memory Protection
  - c) Multiple module memories
  - d) Memory Interleaving
- 5. Explain DMA and DMA Controller

#### **SOFTWARE ENGINEERING (CS1342)**

- 1. Comparison of different Life Cycle Models.
- 2. First-level factoring, factoring input, output and transform branches.
- 3. Design walkthroughs, critical design review, consistency checkers.
- 4. Differentiate Control flow based and Data-flow based testing.
- 5. Differentiate black-box and white-box testing.

#### **OPERATING SYSTEMS(CS 1343)**

- 1. Explain CPU scheduling algorithms in detail with example
- 2. Write a note on:
  - a) Critical section problem
  - b) Deadlocks
  - c) Demand paging
  - d) Semaphores
- 3. Explain different page replacement algorithms in detail.
- 4. Explain classical synchronization problems in inter process communication.
- 5. Explain the file system structure and implementation.

# **INTERNET PROGRAMMING (CS 1344)**

- 1. Explain the architecture of JAVA Servelets.
- 2. Write any one application program using HTML.
- 3. Write a note on Macromedia flash, Webserver and Web databases.
- 4. Write a note on JDBC, PHP, . Net Technology and C#.
- 5. Explain the web administration and maintenance.
- 6. Write five application program code in Javascript.

# MICROPROCESSORS & PERIPHERALS (CS 1345)

- 1. Difference between real mode and protected mode?
- 2. Explain assembler directives with example?
- 3. Explain COM and EXE files.
- 4. Explain BIOS and DOS interrupts
- 5. Difference between maximum mode and minimum mode signals?