Model Question Paper

COURSE: M.TECH. **BRANCH**: COMPUTER SCIENCE ENGINEERING

SEMESTER: 1 . **SUBJECT**: OPEN SOURCE SOFTWARE TECHNOLOGY

Duration: 3:00 hrs **Max marks: 100**

Note: Attempt all questions.

1. **Attempt any four parts of the following.** 5x4 = 20

   A. Compare and contrast between LINUX kernel mode and user mode.
   B. Discuss the need and advantages of open source software.
   C. Write a short note on PHP math functions.
   D. Explain different types of arrays in PHP with suitable examples.
   E. Write a Python program to print Fibonacci series.
   F. Explain various program control statements in PHP with suitable examples.

2. **Attempt any two parts of the following.** 10x2=20

   A. Write a note on control flow statements in Python using examples.
   B. Write a note on syntax of data manipulations statements in MySQL with examples.
   C. Explain in detail about Linux operating system evolution?

3. **Attempt any two parts of the following.** 10x2=20

   A. What is Open Source Software (OSS)? How it is useful to Small Businesses?

   B. Explain the following:

      (i)   Sorting Query Results in MYSQL
      (ii)   Record selection Technology
      (iii)   MySQL Group By Clause
      (iv)   IN and BETWEEN Clause

   C. Define the block diagram of system Kernel in brief and explain the functioning of each component.

4. **Attempt any two parts of the following.** 10x2=20

   A. Write a MYSQL query for the following using DATE and TIME functions
      i)   Display current date and time.
      ii)   Display time in 10:10:10 format.
      iii)   Display the name of the day of a particular date.
      iv)   Display the date "One Year Ago" from today's date.

   B. Describe Apache in regards with the following points: i) History ii) License iii) Applications

C. Discuss Android operating system.

5. Attempt any two parts of the following.   **10x2=20**

A. Define terms: IDE, Development Tools, Programming languages. Give example.
B. Discuss any two open source database technology.
C. Explain the following PHP regular expression functions in detail.
   i) preg_match() ii) preg_replace() iii) preg_split()