

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-2 EXAMINATIONS-2022

B. Tech-VI Semester

COURSE CODE: 13B1WCI731

MAX. MARKS: 25

COURSE NAME: ARM Based Embedded System Design

COURSE CREDITS:3

MAX. TIME: 1 Hour 30 Min

*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

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- Q1. Write a program to add the contents of two 64-bit variables Value1 and Value2. Store the result in Result. [CO-4: 3 Marks]
- Q2. With the help of an example explain following instructions of ARM 7 TDMI: UMLAL, STMEA and LDMFD. [CO-3: 3 Marks]
- Q3. Explain different types of exceptions in ARM and how these exceptions are handled. Explain the procedure to handle multiple exceptions simultaneously. [CO-3,4: 3 Marks]
- Q4. Explain branch instructions of call type and branch instructions with link and exchange in ARM. [CO-4: 3 Marks]
- Q5. Write a program to Multiply two 32-bit number to give a 64-bit result. [CO-3: 5 Marks]
- Q6. Write an ARM program to find the factorial of a number. [CO-4: 5 Marks]
- Q7. How ARM 7 implements pipelining by overlapping various stages of an instruction cycle to improve the performance of processor. [CO-1,2: 3 Marks]