Course:	**Digital Logic Design**		**Course Code:**	**EE-227**
Program:	**BS (Computer Science)**		**Semester:**	**Spring 2021**
Duration:	**10 Minutes**		**Total Marks:**	**10**
Paper Date:	**16-June-2021**		**Weight**	**3 %**
Section:	**C**		**Page(s):**	**2**
Exam:	**Quiz 2**		**Reg. No.**	

Instruction/Notes:	Calculators are strictly not allowed in all exams
	Plagiarism will be dealt seriously causing an F in course

1. Design a combinational circuit that accepts a 3-bit number and generates a 6-bit binary number output equal to the square of the input number.

2. **Implement the following Boolean function with an 8–to–1-line multiplexer and a single inverter with variable D as its input:**

$$F(A, B, C, D) = \Sigma m(2, 4, 6, 9, 10, 11, 15)$$