

QP CODE	2040554228
---------	------------

Reg.No:

--	--	--	--	--	--	--	--	--	--

DMI-ST. EUGENE UNIVERSITY
DEGREE EXAMINATION – JANUARY 2023

SEM: IV

055CV42 BASIC CIVIL ENGINEERING

Time: 3 Hours

Max. Marks: 100

Answer any Five questions (5 x 20 = 100 Marks)

1. a) What is fat lime? (5 Marks)
b) State the properties of fat lime (5 Marks)
c) Explain the chemical test on lime. (10 Marks)
2. a) What is a lintel? (6 Marks)
b) State the advantages of flat roofs. (8 Marks)
c) What are the ill effects of dampness? (6 Marks)
3. a) State and explain the Hooke's Law. (10 Marks)
b) A spring is displaced by 50 cm and held in place with a force of 5000 N. What is the spring constant of proportionality? (5 Marks)
c) What is the bulk modulus? (5 Marks)
4. a) List the instruments used in chain surveying. (5 Marks)
b) What is the advantage of compass surveying over chain surveying? (8 Marks)
c) What is the importance of roads? (7 Marks)
5. a) What is a dam? (4 Marks)
b) What is the purpose of building dams? (8 Marks)
c) Name the biggest dam in Zambia and state its economic functions. (8 Marks)
6. a) Define a property of a material. (3 Marks)
b) List at least 10 mechanical properties of material? (10 Marks)
c) What is stress? (7 Marks)
7. a) State the physical properties that should be checked before using Portland cement in civil engineering work. (6 Marks)
b) Discuss the uses of cement. (8 Marks)
c) Compare and contrast soft and hard wood. (6 Marks)