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# MANIPAL INSTITUTE OF TECHNOLOGY

## MANIPAL

A Constituent Institution of Manipal University

**III SEMESTER B.TECH. (CIVIL ENGINEERING)**  
**END SEMESTER EXAMINATIONS, NOV/DEC 2017**  
**SUBJECT: ENGINEERING GEOLOGY [CIE 2105]**  
**REVISED CREDIT SYSTEM**  
**(28/11/2017)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.
- ❖ Draw neat sketches wherever necessary

Q. No.	Question	Marks	CO
1A	What are metamorphic rocks? Explain in detail the three causes of metamorphism.	6	1
1B	Explain in detail the body and surface waves produced during an earthquake.	4	2
2A	What is sorting and roundness of sediment grains?	5	1
2B	Explain the parts of a folded structure. What is an Anticlinorium and a synclinorium?	3	3
2C	Explain the formation of an Ox-bow lake	2	2
3A	Explain in detail the different agents of physical weathering.	5	2
3B	Explain the different zones of groundwater. What is the relationship between river streams and groundwater?	5	3
4A	What is the geological time scale? Explain in detail the Mesozoic Era.	5	1
4B	What are the geological factors that must be considered by a civil engineer before the construction of bridges?	5	4
5A	Explain the geometric and genetic classification of Joints	4	3
5B	What is Remote Sensing? What are the basic processes that are involved in it?	4	5
5C	Write a short note on Angular unconformity	2	3