

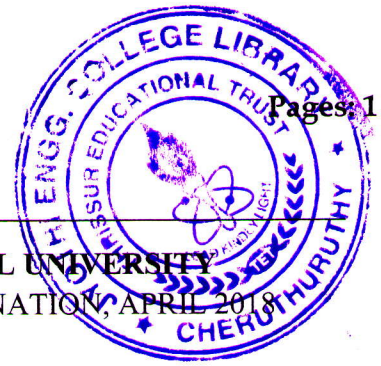
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Name: \_\_\_\_\_



**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**THIRD SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2018**

**Course Code: CE205**

**Course Name: ENGINEERING GEOLOGY (CE)**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions, each carries 15 marks*

- |   |   | Marks |
|---|---|-------|
| 1 | a) What is weathering? Explain different types of weathering.                   | (6)   |
|   | b) Explain any two laboratory tests used for assessing intensity of weathering. | (6)   |
|   | c) Explain soil profile with neat sketch.                                       | (3)   |
| 2 | a) Explain Artesian aquifer   | (3)   |
|   | b) Explain Hydraulic conductivity   | (3)   |
|   | c) Describe the methods to control of subsurface water.                         | (9)   |
| 3 | a) List the various sub-divisions in geology                                    | (5)   |
|   | b) Differentiate unconfined and confined aquifer with figure.                   | (5)   |
|   | c) Elucidate on geological classification of soil                               | (5)   |

**PART B**

*Answer any two full questions, each carries 15 marks*

- |   |  |      |
|---|--|------|
| 4 | Explain physical properties of the following:                  | (15) |
|   | i) Amphibole ii) Pyroxene iii) Mica                            |      |
| 5 | a) Explain the concept of lineation and foliation.             | (5)  |
|   | b) Write short note on rock types of Kerala.                   | (5)  |
|   | c) Differentiate igneous, sedimentary and metamorphic rocks.   | (5)  |
| 6 | a) Explain the properties that affect the strength of minerals | (6)  |
|   | b) Write short note on   | (9)  |
|   | i) Granite ii) Shale iii) Lime-stone                           |      |

**PART C**

*Answer any two full questions, each carries 20 marks*

- |   |  |      |
|---|--|------|
| 7 | a) What is meant by folds? Explain different types of fold.                        | (6)  |
|   | b) Describe the classification of fault.   | (6)  |
|   | c) Describe geological factors considered in the construction of dams and tunnels. | (8)  |
| 8 | a) Explain Flood and its causes.   | (6)  |
|   | b) Discuss the various flood control measures                                      | (6)  |
|   | c) Explain soil erosion and its causes.  | (8)  |
| 9 | a) Give the engineering significance of faults and joints.                         | (12) |
|   | b) What are the different soil conservation measures employed?                     | (8)  |

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