

Reg No.: _____

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

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|---|----|--|-----|
| 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

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|---|----|--|------|
| 4 | | Explain physical properties of the following:
i) Amphibole ii) Pyroxene iii) Mica | (15) |
| 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
i) Granite ii) Shale iii) Lime-stone | (9) |

PART C

Answer any two full questions, each carries 20 marks

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|---|----|---|------|
| 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) |
