

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2018-19 Examination

Semester: 1**Subject Code: 11211102****Subject Name: Earth Surface Processes****Date: 03/12/2018****Time: 10:30am to 1:00pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Short note on Physical weathering.
 (b) Short note on earth's energy balance.
- Q.1. B) Answer the following questions (Any two) (04)**
 (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
 1. What is exfoliation?
 2. What is respiration?
 (b) Short note on carbon cycle. (04)
 (c) Short note on topography and bathymetry. (04)
- Q.2. A) Answer the following questions. (04)**
 (a) Short note/ Brief note (2x2). (Each of 02 marks) (04)
 1. Brief note on spheroidal weathering.
 2. Brief note on regolith.
 (b) Short note on rates of weathering. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Multiple choice questions. (Each of 01 marks) (03)
 1. Which is the densest layer in the atmosphere?
 a) Ionosphere b) Troposphere c) Mesosphere d) Stratosphere
 2. How many % of solar radiation reaches the earth's surface?
 a) 80% b) 20% c) 40% d) 70%
 3. Undefined region lying between troposphere and stratosphere is known as _____.
 a) Mesopause b) Tropopause c) Startopause d) None of the above
 (b) Short note on residual soil. (03)
 (c) Short note on atmosphere. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Explain soil profile.
 (b) Explain Chemical weathering.
- Q.3. B) Answer the following questions (Any two) (04)**
 (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
 1. Brief note on photosynthesis.
 2. Brief note on Frost.
 (b) Short note on transported soil. (04)
 (c) Short note on climate and soil formation. (04)
- Q.4. A) Answer the following questions. (04)**
 (a) Short note/ Brief note (2x2)/ Fill in the blanks. (Each of 02 marks) (04)
 1. _____ percentage of the earth's water is fresh water.
 2. _____ is called combined effect of weathering and erosion.
 (b) Short note on hydrological cycle. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Multiple choice questions. (Each of 01 marks) (03)
 1. Which is the upper most layer of the soil profile?
 (a) A-Horizon (b) B-Horizon (c) C-Horizon (d) None of the above
 2. Residual product of Quartz is _____.
 (a) Clay minerals (b) Limonite (c) Quartz grains (d) Hematite
 3. If the transporting agency is wind then what will be the nature of soil?
 (a) Alluvial deposits (b) Eolian deposits (c) Marine deposits (d) Glacial deposits
 (b) Short note on solar radiation. (03)
 (c) Short note on modes of sediment transport. (03)