

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2019-20 Examination

Semester: 1
Subject Code: 11211105
Subject Name: Sedimentary Petrology and Sedimentology

Date: 06/12/2019
Time: 10:30 am to 01:00 pm
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) Brief note on Dunham's classification of limestone
 (b) Differentiate between laminar and turbulent flow.
- 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. Subdivisions of ocean floor based on the gradient.
 2. Diagram illustrating changes in shapes of subaerial deltas depending on wave energy and sediment input.
 (b) Short note on environments of limestone occurrences. (04)
 (c) Short note on mechanism of physical (Mechanical) weathering. (04)
- Q.2. A) Answer the following questions. (04)**
 (a) Short note/ Brief note (2x2)/ Fill in the blanks. (Each of 02 marks) (04)
 1. What do you understand by the competency and capacity of a river?
 2. What is a flute cast?
 (b) Short note on cross-bedding. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Short note/ Multiple choice questions. (Each of 01 marks) (03)
 1. What do you mean by thermocline?
 2. Define Eh.
 3. Why Calcite compensation depth is more near the equators?
 (b) Short note on roundness and sphericity. (03)
 (c) Short note on Packing in sedimentary rocks. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Brief note on Grain size scale.
 (b) Brief note on siliciclastic sediments on continental shelf.
- 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. Draw the progradational and retrogradational vertical sequence produced by the migration of submarine fan.
 2. Schematic diagram showing modes of sediment transportation.
 (b) Short note on Felspathic sandstone. (04)
 (c) Short note on ripple bedding. (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. Name the factors which influence the weathering of minerals and rocks.
 2. Define intraformational and extraformational conglomerate.
 (b) Short note on classification of clay minerals. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Short note/ Multiple choice questions. (Each of 01 marks) (03)
 1. What is the grain size of silt?
 2. What do you mean by "avulsion"?
 3. Discrimination between beach and Aeolian dune sands can be obtained by plotting _____ against skewness in a cumulative graph.
 (a) Kurtosis (b) Variance (c) Mean size (d) Standard deviation.
 (b) Short note on Barrier beach facies. (03)
 (c) Short note on morphology of Deep-sea Fans. (03)