

	<p style="text-align: center;"><b>ADAMAS UNIVERSITY</b>  <b>END-SEMESTER EXAMINATION : JANUARY 2021</b>  (Academic Session: 2020 – 21)</p>		
<b>Name of the Program:</b>	<b>B. Tech.</b>	<b>Semester:</b>	<b>III</b>
<b>Paper Title :</b>	<b>Engineering Geology</b>	<b>Paper Code:</b>	<b>ECE42101</b>
<b>Maximum Marks :</b>	<b>40</b>	<b>Time duration:</b>	<b>3 hrs</b>
<b>Total No of questions:</b>	<b>10</b>	<b>Total No of Pages:</b>	<b>02</b>
(Any other information for the student may be mentioned here)	<ol style="list-style-type: none"> <li>1. At top sheet, clearly mention Name, Univ. Roll No., Enrolment No., Paper Name &amp; Code and Date of Exam.</li> <li>2. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page.</li> <li>3. Assumptions made if any, should be stated clearly at the beginning of your answer.</li> </ol>		

*Answer all the Groups*

**GROUP– A**

**Answer all the questions of the following**

**5 x 1= 5**

1. i) The winds are formed basically due to which reason?
- ii) Name the branch of geology which deals with the morphology, classification, mechanism and causes of development of the rock structures.
- iii) Stratification can be seen widely in which of the rocks?
- iv) Name the earthquakes originating due to volcanic eruptions or landslides.
- v) Dam has to be constructed as far as possible from which geological structure to avoid shearing.

**GROUP– B**

**Answer *any Three* of the following**

**3 x 5 = 15**

2. Compare and contrast the following pairs:  $2\frac{1}{2} + 2\frac{1}{2} = 5$ 
  - (a) Lava and Magma
  - (b) Plutonic and Volcanic rocks.
3. Write short notes (**any Two**) on the following:  $2\frac{1}{2} + 2\frac{1}{2} = 5$ 
  - (a) Graphic texture
  - (b) Porphyritic texture
  - (c) Progressive metamorphism
  - (d) Dynamothermal metamorphism

4. Write short notes (**any Two**) from the followings (draw neat sketch wherever required)

$2\frac{1}{2} + 2\frac{1}{2} = 5$

- a) Anticlinorium Fold
- b) Types of Stream
- c) Step Fault
- d) Buttress dam
- e) Types of Drainage System.

5. Which one of the following row correctly pairs a mineral with a mineral group in which it belongs?

5

Mineral		Mineral Group
a)	Galena	Silicate
b)	Biotite	Carbonate
c)	Hematite	Sulphide
d)	Calcite	Carbonate
e)	Magnesite	Oxide

6. Draw  
a simple cross section of a volcano.

5

and levelled

### **GROUP- C**

Answer **any Two** of the following

**2 x 10 = 20**

7. (a) What is meant by earthquake? What are the effects of earthquakes?  $2+3+5=10$   
(b) What are the precautionary measures taken in the construction of buildings in earthquake prone zones?
8. What are Landslides? Describe the causes and effects of landslides. Add a note on their preventative measures.  $2+4+4=10$
9. What are the Geological Considerations necessary in the selection of a Dam Site? 10
10. Discuss the application of "Engineering Geology" in civil engineering projects. 10

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