



**ADAMAS UNIVERSITY**  
**END (EVEN) SEMESTER EXAMINATION : MAY 2021**  
(Academic Session: 2020 – 21)

<b>Name of the Program:</b>	B. Tech.	<b>Semester:</b>	VI
<b>Paper Title :</b>	Engineering Geology	<b>Paper Code:</b>	ECE43110
<b>Maximum Marks :</b>	40	<b>Time duration:</b>	3 hrs.
<b>Total No of questions:</b>	08	<b>Total No of Pages:</b>	02
(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, 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

**5×1=5**

1.

**a) Match the following:**

I (Deposits)

1. Copper.
2. Gold.
3. Silver.
4. Lead-zinc.

II (Pathfinders)

- i. Arsenic.
- ii. Mercury.
- iii. Molybdenum
- iv. Antimony.

- (a) 1 - ii, 2-iii, 3 -iv, 4-i.
- (b) 1 -iii, 2 -i, 3 -iv, 4 -ii.
- (c) 1 -i, 2 -ii, 3 -iii, 4 -iv.
- (d) 1 -iii, 2 -ii, 3 -i, 4 -ii.

**b) Match the correct one:**

I

1. Alwar series
2. Bhagwanpura limestone
3. Binota shales
4. Semri series

II

- i) Raialo series
- ii) Aravallis
- iii) Delhi system
- iv) Vindhyaans.

- a) 1-ii, 2-iv, 3-i, 4-iii
- b) 1-i, 2-iv, 3-iii, 4-ii
- c) 1-iii, 2-i, 3-ii, 4-iv

**c) Stone generally used for railway ballast is**

- (a) Sandstone    (b) Limestone    (c) Marble    (d) Basalt or trap basalt

- d) 'Ranthambhor quartzite' belongs to  
 (a) Delhi system (b) Raialo system (c) Aravali system  
 (d) Bundelkhand gneiss
- e) The purpose of the mud employed during drilling operation is /are  
 (a) To seal any water bearing formation.  
 (b) To prevent the bore hole walls from collapsing.  
 (c) To keep cool the drilling bit.  
 (d) All the above are correct

**Group –B**

Answer **any three** of the following

**3×5=15**

2. Explain with diagram the following types of faults (**Any Two**)
  - i) Dip –slip
  - ii) Reverse fault
  - iii) Oblique slip fault
3. Define the following with example/(s) (**Any Two**)
  - i) Isomorphism
  - ii) Polymorphism
  - iii) Pseudomorphism
4. (a) State how many groups are within the minerals and cite one example each.  
 (b) In the feldspar family, which member is in the top and bottom?  
 (c) Describe the different methods of study of minerals.
5. Draw and label the cross sectional view of modern plate tectonic cycle.

**Group –C**

Answer **any two** of the following

**2×10=20**

6. Explain the geological causes for failure dams. Quote a few case histories.
7. Write short notes on the following (**Any Four**):
  - i) Porphyritic texture
  - ii) Compare with example: Plutonic and Volcanic rocks
  - iii) Lining of tunnel
  - iv) Fan Fold
  - v) Progressive metamorphism
8. Sand stones, Shales, Lime stones, Laterites and Conglomerate are the common sedimentary rocks found in nature". Discuss their suitability or otherwise at dam sites, reservoir sites and tunnel sites?

\_\_\_\_\_ END \_\_\_\_\_