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Code No. : 13144 S

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (Civil Engg.) III-Semester Supplementary Examinations, July-2022

Geology

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Write the chemical composition of Olivine and Kyanite	2	1	1	1
2.	Describe the stratification along with the figure	2	2	1	1
3.	Define the terms "Strike" and "Dip"	2	1	2	1
4.	Examine the factors effecting the soil formation	2	4	2	1
5.	Calculate the apparent resistivity of formation for wenner configuration arrangement. Electrode separation=20 mts, V=250millivolts,i=20 milliamps	2	4	3	4
6.	Match the following a) Aquifer i) Sandy clay b) Aquifuge ii) Sand stone c) Aquiclude iii) Granite d) Aquitard iv) Shale	2	1	3	1
7.	Analyze a dam failure that you know.	2	4	4	1
8.	Explain the reservoir induced seismicity.	2	2	4	1
9.	What is a standup time	2	1	5	1
10.	List and write about the different types of seismic waves.	2	4	5	1
Part-B (5 × 8 = 40 Marks)					
11. a)	Illustrate the different textures exhibited by Igneous rocks	5	3	1	1
b)	Describe the following rocks by using texture, structure, mineral composition, origin and engineering importance. a) Granite b) Sandstone c) Marble	3	2	1	1
12. a)	Evaluate the different classifications of folds	5	1	2	1
b)	Categorise and explain the different types of physical weathering	3	4	2	1

13. a)	Differentiate the different types of aquifers	5	4	3	1
b)	Analyze the factors controlling the porosity in rocks	3	4	3	1
14. a)	Examine the influence of geology in the selection of a Dam site	5	4	4	6
b)	Write notes seepage and leakage of reservoirs	3	1	4	1
15. a)	Examine the importance of structural features in the selection of a tunnel site	4	4	5	6
b)	Describe in detail the methods of seismic investigation. Add a note on their field arrangements	4	2	5	4
16. a)	Discuss the various physical properties that are used in the identification of minerals	4	2	1	1
b)	Describe the geological classification of Soils	4	2	2	1
17.	Answer any <i>two</i> of the following:				
a)	Evaluate the various lithological formations in terms of their ground water yield	4	2	3	2
b)	Analyze the geology of any one major dam site of India.	4	4	4	6
c)	Discuss the various causes and types of landslides. Add a note on their control measures	4	2	5	2

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	33.7%
iii)	Blooms Taxonomy Level – 3 & 4	46.3%
