



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:IV
Class:SY	Program:B.Tech
Branch Code:CIV	Pattern:2022
Name of Course:Earth Sciences	Course Code:CIV222015
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 pages.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Question No. 1 Attempt following Question

- 1 Elaborate the layers of the Earth's interior structure with neat sketch. (6) CO1, CO3

Question No. 2 Attempt following Question

- 2 Write a short note on: i) Symmetrical and asymmetrical folds. (6) CO2, CO3
ii) Strike joint and dip joint of rocks.

Question No. 3 Attempt following Question

- 3.a) Define exogenic processes in geology and provide two examples. (6) CO2, CO3

OR

- 3.b) Explain the principle of superposition and Original horizontality in stratigraphy. (6) CO2, CO3

- 3.c) Briefly explain the geological time scale and its subdivisions. (5) CO2, CO3

OR

- 3.d) Discuss the significance of the Deccan Plateau in terms of geological processes. (5) CO2, CO3

- 3.e) Explain the landslide with its preventive measures. (5) CO2, CO3

OR

- 3.f) Explain the Dharwar formation. (5) CO2, CO3

Question No. 4 Attempt following Question

- 4.a) What are the objectives of geological investigations for engineering projects? (6) CO4, CO5

OR

- 4.b) List out the types of groundwater and briefly describe their characteristics. (6) CO4, CO5

- 4.c) Define watershed management and explain its importance. (5) CO4, CO5

OR

- 4.d) What the advantages of Test Pits method? (5) CO4, CO5

- 4.e) How can dams and canals construction impact the geological conditions of an area? (5) CO4, CO5

OR

- 4.f) Describe the methods of conservation of groundwater. (5) CO4, CO5

Question No. 5 Attempt following Question

- 5.a) Explain the influence of geological conditions on the choice of a dam type. (6) CO2, CO4, CO5

OR

- 5.b) Discuss the importance of geological investigations in dam site selection. (6) CO2, CO4, CO5

- 5.c) Define the terms strength, stability, and water tightness in the context of foundation rocks. (5) CO2, CO4, CO5

OR

- 5.d) Explain the uses of sedimentary rock in building construction. (5) CO2, CO4, CO5

- 5.e) How does groundwater influence excavation and tunnelling operations? (5) CO2, CO4, CO5

OR

- 5.f) Evaluate the suitability of common rock types for excavation and tunnelling. (5) CO2, CO4, CO5

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