Seat No Emonnent No	Seat No.:	Enrolment No
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Subject Code: 132203

GUJARAT TECHNOLOGICAL UNIVERSITY BE SEMESTER-III • EXAMINATION – SUMMER 2015

Date:04/06/2015

Ti	me:0 truction 1 2	. Attempt all questions.	70
Q.1	(a) (b)	Define geology and narrate the role of geology in mining engineering. Drawing a labeled diagram, describe the internal structure of the earth.	07 07
Q.2	(a) (b)	Describe THREE important physical properties of minerals giving examples. Define weathering, erosion and denudation. Giving suitable illustrations, describe the process of physical weathering of rocks.	07 07
	(b)	OR What is plate tectonics? Narrate the applications of plate tectonics.	07
Q.3	(a) (b)	Describe various components of a typical fold. Describe the principles of stratigraphy. Add a note on Geological Time Scale.	07 07
Q.3	(a) (b)	OR What are unconformities? Give details of different types of unconformities. State the applications of remote sensing and GIS in mining engineering.	07 07
Q.4	(a) (b)	Discuss the subsurface exploration with pitting, trenching, shafting and aditing giving its advantages and limitations. How are faults and unconformities identified and distinguished in field?	07 07
Q.4	(a) (b)	OR Explain the physical properties of the following minerals: Quartz, Garnet, Tourmaline, Magnetite, Bauxite, Augite, Muscovite Explain erosional features developed by wind.	07 07
Q.5	(a) (b)	Write detailed notes on the following topics (ANY TWO): Importance of geological maps and cross-sections Anticlines and synclines	07 07
	(c) (d)	Drilling methods Dip and strike of beds	07 07
