

Name:  
Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2019**

**Course: INTRODUCTORY GEOLOGY**  
**Programme: B. Tech Geoinformatics [GIE]**  
**Time: 03 hrs.**  
**Instructions:**

**Semester: III**  
**CODE: PEGS2013**  
**Max. Marks: 100**

**SECTION A [5x4=20 marks]**

S. No.		Marks	CO
Q 1	Describe the radioactive method of dating of earth	5	CO1
Q 2	Explain the terms : Atolls, Groynes, Moraines, Tombolo, Stylolites, Stalactite, Hanging valley	1x5=5	CO2
Q 3	Describe the process of crystallization of two component magma	5	CO3
Q 4	Differentiate between the followings: (a) Dip and Strike (b) Anticline fold and Syncline fold (c) Normal Fault and Reverse fault (d) Sandstone and Limestone (e) Schist and Gneiss	1x5=5	CO4

**SECTION B [10x4=40 marks]**

Q 5	a) Discuss the processes associated with river erosion. b) Describe the zones of ground water.	5+5=10	CO2
Q 6	a) Enumerate the structure of either igneous or metamorphic rocks b) Illustrate the various types of metamorphism facies.	5+5=10	CO3
Q7	Sketch the different geometric elements of fault and explain all.	5+5=10	CO4
Q8	Describe the geology of following areas with particular reference age, tectonic setting, petrological and paleontological history. a) Kutch b) Vindhyan	5+5=10	CO5

OR

Q8	Describe the different mode of preservation of fossil in rocks and add a note on the importance of fossils in the study of geology.	10	CO5
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**SECTION-C [20x2=40 marks]**

Q 9	(a) Classify sedimentary rocks into various classes and elaborate each class. (b) Discuss the theory and concept of plate tectonics with neat sketches	10+10= 20	CO3
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<p>Q10</p>	<p>(a) Describe the various criteria for recognition of fold, fault and unconformities in geological maps.</p> <p>(b) Draw a geological cross section of an area shown in fig 1. Give a brief account of the geological history of the area.</p>	<p>5+15=20</p>	<p>CO6</p>
<p>OR</p>			
<p>Q10</p>	<p>(a) Illustrate how a geological section can be drawn across a geological map.</p> <p>(b) “Geomorphology is intimately related to tectonics”, explain with examples.</p>	<p>10+10=20</p>	<p>CO6</p>

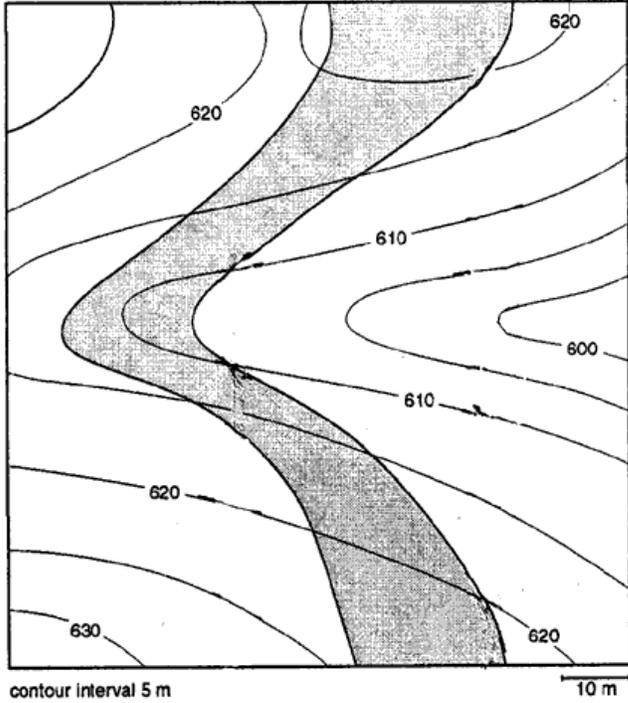


Fig 1

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