

00831

**B.TECH. COMPUTER SCIENCE AND  
ENGINEERING (BTCSEVI)**

**Term-End Examination**

**December, 2013**

**BICSE-018 : PATTERN RECOGNITION**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : (i) Answer **any seven** questions.*

*(ii) All questions **carry equal** marks.*

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1. What is meant by clustering ? Explain any two clustering algorithms in detail. 10
2. Explain about the traditional snake model in locating object contours. 10
3. What is the role of smoothing in noise reduction ? Explain about the smoothing transformation in detail. 10
4. (a) What are the problems raised by the activities in design of pattern recognition system ? 5  
(b) Explain about the feature extractions with suitable example. 5
5. List the various approaches of pattern recognition. Explain each of them in detail. 10

6. What is line detection ? What detector are used to detect line? Explain them briefly. 10
7. Explain how boundary is different from an edge ? Discuss the computational model for boundary detection. 10
8. Explain how fuzzy approach can be applied to pattern recognition in detail. 10
9. (a) Explain the effects of sample size on feature selection and error estimation. 5  
(b) Discuss the relationship between pattern recognition and neural network. 5
10. Write short notes on the following :  
(a) Training patterns 2  
(b) irregular pattern 2  
(c) Learning 2  
(d) Statistical methods 4
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