No. of Printed Pages : 2

BICSE-018

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

00261

Term-End Examination

December, 2014

BICSE-018 : PATTERN RECOGNITION

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any* ***seven*** *questions. All questions carry equal marks.*

1. Define pattern recognition. What are the types of images ? Explain them. *10*

2. (a) What is an irregular pattern ? How can you indicate the irregular patterns ? *5*

   (b) State the fuzzy methods. Explain. *5*

3. What is syntactic pattern ? Explain the methods in syntactic pattern. *10*

4. List the various one-dimensional edge models and their first and second derivatives. *10*

5. Consider the following 3×6 image with eight possible gray levels :

1	2	1	1	2	0
0	1	5	1	0	1
1	6	7	6	1	2

   Construct the gray level histogram and the thresholded image obtained using the minimum point between the two largest histogram peaks at the threshold value. *10*

6. Explain the various Snake methods. *10*

7. Define gradient. Explain with suitable examples. *10*

8. What is smoothing ? How is it applicable to an image ? Explain. *10*

9. How can you merge two images ? Also explain the methods involved in it. *10*

10. Explain the algorithms for pattern recognition with suitable example. *10*
