

SGN-5016 S S.2008

## MULTIMEDIA SIGNAL PROCESSING EXAM TOPICS

Please state that you completed exercises successfully.

1. EXPLAIN DIFFERENCES BETWEEN BIOLOGICAL INFORMATION PROCESSING HARDWARE AND COMPUTER HARDWARE
2. EXPLAIN STATISTICAL PRINCIPLES IN THE HUMAN VISUAL PROCESSING AND GIVE ARGUMENTS SUPPORTING IT.
3. DESCRIBE THE USE OF HISTOGRAMS AS MEASURE OF SIMILARITY FOR PATTERNS, WHAT ARE THEIR STRONG AND WEAK POINTS?
4. WHAT ARE FEATURES IN IMAGES AND HOW THEY CAN BE EXTRACTED?
5. DESCRIBE COLOR SPACES AND HOW THEY CAN BE USED IN THE REDUCTION OF INFORMATION IN IMAGES
6. EXPLAIN WHAT IS THE MEANING OF "PIXEL" IN THESE STATEMENTS: "DIGITAL CAMERA WITH 2 MEGAPIXELS", "COMPUTER MONITOR WITH 1600X1200 PIXELS".

You can answer in Finnish or English.

THE QUESTIONS ARE GRADED FROM 0-5 POINTS. THE GRADES ARE ASSIGNED AS FOLLOWS:

<14p. - 0  
15-16p. - 1  
17-19p. - 2  
20-23p. - 3  
24-27p. - 4  
28-30p. - 5

IREK DEFÉE