~~PAPER 7 Q4~~ - HCI QUESTION SAMPLE ANSWER (15 MARKS)

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(a) QUANTITATIVE:

THE KEYSTROKE-LEVEL MODEL, BASED ON QUANTITATIVE ESTIMATES OF EXECUTION TIME FOR USER ACTIONS

CONTROLLED EXPERIMENTS, IN WHICH TIME TO COMPLETE A TASK IS COMPARED BETWEEN ALTERNATIVE DESIGNS

QUALITATIVE:

COGNITIVE WALKTHROUGH, WHICH SIMULATES THE EXPERIENCE OF USERS ENCOUNTERING A NEW INTERFACE

HEURISTIC EVALUATION, WHICH TESTS WHETHER AN INTERFACE MEETS QUALITATIVE CRITERIA (4)

(b) THE KEYSTROKE-LEVEL MODEL DOES NOT REQUIRE THAT ANY KIND OF SYSTEM BE BUILT, WHEREAS EXPERIMENTAL EVALUATION DOES.

THE MEASUREMENTS MADE IN AN EXPERIMENT MAY BE ATYPICAL DEPENDING ON THE SAMPLE CHOSEN, WHILE KLM PARAMETERS HAVE BEEN TESTED FOR REPRESENTATIVE ACCURACY

EXPERIMENTAL STUDIES ARE MORE LIKELY THAN KLM TO DISCOVER UNANTICIPATED PROBLEMS WITH THE SYSTEM (6)

(c) HEURISTIC EVALUATION CAN BE FAST, AND RELATIVELY INEXPENSIVE COMPARED TO COGNITIVE WALKTHROUGH

COGNITIVE WALKTHROUGH REQUIRES SOME SPECIALIST KNOWLEDGE FROM THE EVALUATORS, WHEREAS HEURISTIC EVALUATION DOESN'T

COGNITIVE WALKTHROUGH IS MORE SYSTEMATIC, AND CAN THEREFORE HELP TO VALIDATE THE PRODUCT, WHEREAS HEURISTIC EVALUATION PRODUCES LESS FOCUSED CRITICISM (6)

(d) I WOULD CHOOSE THE KEYSTROKE LEVEL MODEL, MOST USERS WILL BE PERFORMING THE SAME OPERATIONS MANY TIMES, SO EFFICIENCY WILL BE THEIR PRIME CONCERN. BANKING TRANSACTIONS ARE FAIRLY STANDARDISED, SO LESS LEARNING IS REQUIRED THAN IN SYSTEMS THAT ARE COMPLETELY NOVEL

FURTHERMORE, A GOOD INTERACTION DESIGN SHOULD BE BASED ON EXISTING PRODUCTS, MEANING COGNITIVE WALKTHROUGH IS LESS RELEVA (4)

MARKING GUIDE : PAPER 7 / HCI

PART A – NAMING TECHNIQUES IS SUFFICIENT IN THE CASE OF RECOGNISED METHODS, OTHERWISE SUFFICIENT DESCRIPTION TO IDENTIFY FROM COURSE MATERIAL

(1 MARK EACH)

PART B – THREE COMPARISONS. IN EACH CASE, MUST MAKE CLEAR HOW THE FACTOR IDENTIFIED APPLIES TO EACH TECHNIQUE, FOR 3 × 2 MARKS

PART C – SAME AS PART B

PART D – ONE MARK FOR NAMING THE TECHNIQUE, ONE FOR EACH CORRECT JUSTIFICATION.