

TABLE OF CONTENTS

0 INTRODUCTION	5
0.1 HOW TO USE THE GUIDE.....	6
0.2 ABOUT HL7 CERTIFICATION	7
BACKGROUND.....	9
1 HL7 INTRODUCTION, MESSAGING & THEORY	11
1.1 WHAT IS HL7?.....	13
1.2 WHY IS HL7 REQUIRED?.....	14
1.3 COMMUNICATION ENVIRONMENT FOR HL7.....	16
1.4 APPLICATION AREAS OF HL7	18
1.5 DEFINITION OF A MESSAGE	23
1.6 TYPES OF MESSAGE	24
EXERCISES	26
ESSAY QUESTIONS.....	29
TEST QUESTIONS.....	30
2 TRIGGER EVENTS	35
2.1 WHAT ARE TRIGGER EVENTS?	36
2.2 WHAT IS THE SIGNIFICANCE OF TRIGGER EVENTS?.....	37
2.3 HOW ARE TRIGGER EVENTS RELEVANT TO MESSAGES?	38
EXERCISES	40
ESSAY QUESTIONS.....	42
TEST QUESTIONS.....	43
3 ELEMENTS OF AN HL7 MESSAGE	45
3.1 SEGMENTS AND FIELDS	46
3.2 MESSAGE DELIMITERS.....	48
3.3 MSH SEGMENT: MESSAGE HEADER.....	51
3.4 EVN SEGMENT: EVENT INFORMATION	55
3.5 PID SEGMENT: PATIENT INFORMATION	57
3.6 PV1 SEGMENT: PATIENT VISIT	59
3.7 OBX SEGMENT: OBSERVATION	63
3.8 AL1 SEGMENT: PATIENT ALLERGY	66
3.9 MSA SEGMENT: MESSAGE ACKNOWLEDGMENT.....	67
3.10 OTHER IMPORTANT HL7 SEGMENTS.....	69
EXERCISES	73
ESSAY QUESTIONS.....	76
TEST QUESTIONS.....	77
4 ACKNOWLEDGMENT	81
4.1 ORIGINAL MODE ACKNOWLEDGMENT	82
4.2 ENHANCED MODE ACKNOWLEDGMENT	84

4.3 ACK – GENERAL ACKNOWLEDGEMENT.....	85
4.4 MCF-DELAYED ACKNOWLEDGEMENT.....	86
EXERCISES	87
ESSAY QUESTIONS.....	89
TEST QUESTIONS.....	90
5 RULES FOR CONSTRUCTING A MESSAGE.....	93
5.1 MESSAGE CONSTRUCTION RULES.....	94
5.2 VERSION COMPATIBILITY DEFINITION.....	96
EXERCISES	98
ESSAY QUESTIONS.....	100
TEST QUESTIONS.....	101
6 ABSTRACT MESSAGE SYNTAX.....	103
6.1 AN HL7 MESSAGE DEFINITION	104
6.2 EXAMPLE OF AN HL7 ADT MESSAGE	106
6.3 EXAMPLE OF AN HL7 ACK MESSAGE (ERROR).....	108
6.4 EXAMPLE OF AN HL7 ORM MESSAGE	109
6.5 EMPTINESS AND NULLITY	111
EXERCISES	113
ESSAY QUESTIONS.....	115
TEST QUESTIONS.....	116
7 DATA TYPES AND TABLES	119
7.1 DATA TYPES.....	120
7.2 STRING DATA TYPES	127
7.3 CODED VALUE DATA TYPES	128
7.4 NUMERIC AND MONEY DATA TYPES.....	132
7.5 DATE/TIME DATA TYPES	134
7.6 COMPOSITE IDENTIFIER DATA TYPES	136
7.7 DATA TYPES FOR EXTENSIBILITY	142
7.8 ESCAPE CHARACTER USAGE IN HL7 MESSAGES	144
EXERCISES	146
ESSAY QUESTIONS.....	150
TEST QUESTIONS.....	151
8 MISCELLANEOUS TOPICS: BATCH AND CONFORMANCE	157
8.1 BATCH TRANSMISSION OF MESSAGES	158
8.2 HL7 MESSAGE PROFILES.....	160
EXERCISES	163
ESSAY QUESTIONS.....	166
TEST QUESTIONS.....	167
ANSWERS TO EXERCISES	169

TEST QUESTIONS ANSWER KEY	191
TESTING INFORMATION & SAMPLE TEST	195
SAMPLE TEST PAPER	197
ANSWER KEY	207
STUDY GUIDE MAP	209