



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
JUNE/JULY EXAMINATION

COURSE CODE: CIT 703

COURSE TITLE: Information Technology and Software Development

TIME ALLOWED: 3 Hours

INSTRUCTION: Answer Any Five Questions

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| 1a. | Explain what is meant by DFD. | 4marks |
| b. | List five advantages of DFDs. | 5 marks |
| c. | State the five basic constructs used by DFDs. | 5 marks |
| 2a. | Explain software process model | 5 marks |
| b.. | Outline any three software process models | 9 marks |
| 3a. | What is a transition network? | 4 marks |
| b. | State two uses of a transition network. | 4 marks |
| c. | Transition networks are closely related to <i>finite state machines</i> (FSM), and to <i>data flow diagrams</i> (DFD), but they are augmented with the other capabilities. Give three of such capabilities. | 6 marks |
| 4a. | What is requirements engineering? | 4 marks |
| b. | Outline five categories of software requirements. | 10 marks |
| 5a. | Explain the UML concepts. | 4 marks |
| b. | List two of the problems of UML | 4 marks |
| c. | Describe the three main features of UML 2 | 6 marks |
| 6a. | Explain what is meant by software development life cycle. | 4 marks |
| b. | Outline the five activities of the software development process represented in the Waterfallmodel. | 10 marks |
| 7a | Describe what you understand by Extreme Programming (XP). | 5 marks |
| b. | List two of the drawbacks of XP. | 4 marks |
| c. | Describe the essence of communication in XP | 5 marks |

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