

**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**

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 *finite state machines*(FSM),

and to *d*ata flow diagrams(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

1. List two of the problems of UML 4 marks
2. 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](http://en.wikipedia.org/wiki/Waterfall_model). 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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