



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: CIT 854
COURSE TITLE: Network Programming and Design

Time: 2½ hrs

Course Credit Unit: 3

Instruction: Answer any other FIVE questions. Each question carries 14 marks

- 1a) List and explain the criteria for network addressing (10 marks)
b) Enumerate two reasons why UDP would be preferable to TCP and give examples of applications that are better suited for UDP in each case. **(4 marks)**
- 2a) Discuss the various mode of data transmission (6 marks)
b) Briefly describe the key elements of network management system? (8 marks)
- 3a) The disposition of a signal is set by calling the `sigaction` function, describe the three choices for the disposition. (11 marks)
b) With the aid of diagrams present graphical representations of Analogue and digital Signal (3 marks)
- 4a) Write short notes on the following network devices:
i) Hub) 3 marks
ii) Repeater) 6 marks
iii) Switches) 5 marks
- 5a) Briefly describe the operations of a router (5 marks)
b) State the major differences between Bridges and Routers. (3 marks)
c) State and briefly describe any three routing algorithm attributes (6 marks)
- 6a) What is Internet Protocol?) 2 marks
b) State any seven fields of the IP packet and their respective functions.) 12 marks
- 7a) Write short notes on the two fundamental routing algorithms, stating their merits and demerits **(12 marks)**
b) State two disadvantages of networking (2 marks)

