



ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO
STATE
FACULTY OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND COMPUTER
ENGINEERING

FIRST SEMESTER EXAMINATION, 2017/2018 ACADEMIC SESSION

COURSE TITLE: TELECOMMUNICATION SYSTEMS PLANNING

COURSE CODE: ECT534

EXAMINATION DATE: 1ST AUGUST 2018

COURSE LECTURER: PROF.O. AKINSANMI

A rectangular box containing a handwritten signature in black ink, which appears to be 'O. Akinsanmi'.

HOD's SIGNATURE

TIME ALLOWED: 2 HOURS

INSTRUCTIONS:

1. ANSWER FOUR QUESTIONS ONLY
2. SEVERE PENALTIES APPLY FOR MISCONDUCT, CHEATING, POSSESSION OF UNAUTHORIZED MATERIALS DURING EXAM.
3. YOU ARE **NOT** ALLOWED TO BORROW ANY WRITING MATERIALS DURING THE EXAMINATION.

QUESTION 1

- a) What is the Quality of Service (QoS) in a typical Telecommunication system? [3.5Mark]
- b) Differentiate between QoS and Telecommunication network performance. [4 Mark]
- c) List and explain the standardized QoS parameters. [7.5 Marks]

QUESTION 2

- a) (i) Differentiate between Horizontal and Vertical Handover system. [1.5 Marks]
(ii) State the difference between hard horizontal and soft horizontal handover system. [2 Marks]
- b) What are the Models used in Conversation and voice quality [4 Marks]
- c) List the factors that have to be taken into account in Access Network Planning System [7.5 Marks]

QUESTION 3

- a) What is the full meaning of these Abbreviations and Acronyms
(i) ACS (ii) BTV (iii) AG (iv) CBR (v) AS (vi) CC (vii) BICC (viii) CAS [8 Marks]
- b) List and explain the variety of new services and applications that the next Generation Service Architecture will support. [7 Marks]

QUESTION 4

- a) What is Telecommunication Network Planning? [3 Marks]
- b) Draw a diagram for the planning phases related to Networks layers and label appropriately [6 Marks]
- c) Briefly explain the processes in 4b [6 Marks]

QUESTION 5

- a) Define the following Telecommunication Planning terms:
(i) Media Server (ii) Access Gateway (iii) Remote User Module (iv) Trunking Media Gateway [5Marks]
- b) What is the full meaning of these Abbreviations and Acronyms
(i) AMPS (ii) TACS (iii) NMT (iv) ITU [4Marks]
- c) What are the challenges associated with ad-hoc network system [6Marks]

QUESTION 6

- a) What are the advantages of convergence in telecommunication networking system? [5Marks]
- b) What are the advantages of convergence from the service provider's point of view [5Marks]
- c) What are the advantages of convergence from the customer's point of view? [5Marks]