



**CRAWFORD UNIVERSITY, FAITH CITY IGBESA**  
**COLLEGE OF NATURAL AND APPLIED SCIENCES**  
**DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES**  
**HARMATTAN SEMESTER                      SESSION: 2018/2019**

**COURSE CODE: ICT 421**

**TITLE: TELECOMMUNICATIONS POLICIES AND REGULATIONS**

**UNITS: 3**

**DURATION: 2 HOURS 30 MINUTES**

**INSTRUCTION: ANSWER QUESTIONS ONE AND ANY OTHER THREE.**

**QUESTION ONE (30 marks)**

- (a) (i) What is Regulation and why do we regulate telecommunications? (4mrks)  
(ii) Briefly discuss the general roles of regulatory agencies in telecommunications (3mrks)
- (b) (i) Describe the phased approach to the process of regulation. (4mrks)  
(ii) Briefly explain the 3 basic dimensions of regulatory effectiveness, clearly identifying the impact of each on the process of regulation (3mrks)  
(iii) Differentiate between Policies and Standards with respect to telecommunications regulation (2mrks)
- (c) (i) Briefly discuss the following: (8mrks)
- Regulatory Capture
  - Spectrum Planning
  - Convergence
  - National Telecommunications Policy (NTP)
- (ii) Describe the three different structures for the international public telecommunication standards according to the ITU-T Recommendation E.164 for:
- International public telecommunication number for geographic areas. (2mrks)
  - International public telecommunication number for global services. (2mrks)
  - International public telecommunication number for networks. (2mrks)

**QUESTION TWO (10 marks)**

- (a) (i) Identify, and briefly discuss the activities involved in the regulatory domains of the International Telecommunications Union (ITU). (3mrks)  
(ii) Identify the key success factors of effectiveness in regulation? (2mks)
- (b) Discuss the key Interconnection issues. (5mrks)

**QUESTION THREE (10 marks)**

- (a) (i) Explain the concept of Spectrum management and justify the need for regulating RF spectrum access and use (3mrks)  
(ii) Discuss the basic approaches to Spectrum management (3mrks)

- (b) (i) Differentiate with clarity 'electromagnetic spectrum' and 'radio frequency spectrum' (2mrks)  
(ii) Differentiate between Spectrum Harmonization and Spectrum Sharing (2mrks)

**QUESTION FOUR (10 marks)**

- (a) (i) Identify, and briefly discuss the specific roles of the regulatory authorities in charge of telecommunications regulation locally (in Nigeria) and Internationally (globally) (4mrks).  
(ii) Identify any 6 (six) of the widely accepted Interconnection principles (3mrks)
- (b) (i) Compare and contrast the single regulator and multi-sector regulator approaches to regulation in telecommunications. (2mrks)  
(ii) Which of the approaches identified in b (i) do you think is more suitable for the Nigeria now and why? (1mrk)

**QUESTION FIVE (10 marks)**

- (a) (i) Explain clearly the term Interconnection? (2mrks)  
(ii) Identify the specific areas covered by access to communication services for interconnection. (3mrks)
- (b) (i) Convergence can take place at different levels; discuss these levels (3mrks)  
(ii) Discuss the mix of approaches that the national regulatory authority of any given country may adopt in regulating Interconnection. (2mrks)

**QUESTION SIX (10 marks)**

- (a) Briefly discuss 5 of the specific aspects of telecommunications regulated by the Nigerian Communications Commission (NCC), according to the Nigeria Communications Act of 2003 (5mrks)
- (b) Identify the challenges of telecommunications regulation in Nigeria? (2mrks)
- (c) Identify the general practical steps involved in spectrum allocation and assignment (3mrks)