CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD
OF DEGREE OF BACHELOR OF EDUCATION SCIENCE/ARTS

COSC 106 : INFORMATION TECHNOLOGY AND SOCIETY

STREAMS: YEAR1 SEMESTER 1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 16/12/2020   **11.30AM – 1.30 PM**

INSTRUCTIONS
- Answer Question One And Any Other Two Questions

Question One (30 marks)

(a) Discuss the following terms with regard to Information Communication Technology.

(6marks)

   (i) Dial – up access
   (ii) Digital village
   (iii) ICT policy

(b)). Discuss the following forms of ICT's and demonstrate how their use has impacted on development in society.   (6 marks)

   i.   Electronic Mail

   ii. Video Conferencing

   iii. Telephone Conferencing

(c) State four components of a typical communication network. (4 marks)

(d) Explain two types of computer viruses. (3 marks)

(e) Name and explain the three main parts of a bus subsystem . (3 Marks)

(f) Private and government organizations are digitizing their service delivery processes, explain two measures you would advise clients on online services requests and delivery. (4 marks)

(h) Discuss two applications of information technology in poverty reduction in Kenya. (4 marks)

Question Two (20 marks)

(a) Discuss the following types of computer networks. (6 marks)

    (i) LAN

    (ii) WAN

    (iii) Internet

(b) Discuss six indicators of a virus infected computer. (6 marks)

(c) Explain the relevance of communications protocol in computer networks. State the main communications protocol and discuss its use. (4 marks)

(d) The kenya government rolled out a service delivery digital villages dubbed "Huduma centers".

Discuss how network capability has influenced this service delivery. (4 marks)

Question Three (20 marks)

(a) Information technology is relevant in almost every area of life today. Basing your discussion on a learning institution, justify this statement. (8 marks)

(b) Differentiate between the following: (6 marks)

    (i) Star network topology and bus network topology

    (ii) Operating System software and Application software

(c) Discuss the following terms as outlined in a private health facility Automation policy.
(6 marks)

    (i) Programmer
    (ii) Information system

    (iii) Feasibility study

Question Four (20 marks)

(a) Explain what is computer security. (2 marks)

(b) Discuss four Legal and Ethical Issues in information technology. (4 marks)

(c) Contrast wired communication channels against wireless communication channels.
(8 marks)

(d) Every computer system has special software the "operating system software". Explain four reasons why this software is critical for every computer system. (6 marks)

Question Five (20 marks)

(a) Discuss two advantages and two challenges of e – government implementation.

(8marks)

(b) Outline and explain four ICT components presented in Kenya vision 2030. (4 marks)

(c) Passwords are critical in the current online community.

(i) Explain the role of the password (1 mark)

(ii) Discuss three measures of securing a password (3 marks)

(d) Distinguish between Intranet and extranet terms as applied in computer technologies.

(4marks)

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