

NATIONAL OPEN UNIVERSITY OF NIGERIA University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja FACULTY OF SCIENCES 2022\_1 EXAMINATION

COURSE CODE:CIT322 (3Units)COURSE TITLE:Introduction to Internet ProgrammingTIME ALLOWED:3 HoursINSTRUCTION:Answer Question 1 and any other three (3) questions

## Question 1:

- a. Itemize the essential services required in a service oriented environment. (5marks)
- b. Describe Cloud computing? (4marks)
- c. Describe API and Widgets (4 marks)
- d. Consider the OSI model, from layer 1 to layer 7, mention the names of the layers and state their functions respectively.(7 marks)
- e. Compare and contrast the functions of UDP and TCP (5 marks)

## Question 2:

- a. With the aid of a diagram explain the fundamental operations in a web service architecture. (6 marks)
- b. Enumerate the major difference between Cloud computing and classic Client-server model? ( 3 marks)
- c. List six(6) examples of mobile devices that can be used to access the Internet.(6marks)

## Question 3:

- a) Discuss the four major ways of connecting a client computer to the vast resources on the Internet. (12 marks)
- b) Distinguish between the features of Javascript and Java. (3marks)

Question 4:

- a. Expatiate the features of Web 2.0 as an enhancement of Web 1.0 (4 marks)
- b. Distinguish between Intranet and Extranet (4 marks)

c. Identify the major advantages of Digital Satellite Connection over other means of internet access. (4Marks)

Question 5:

- a. Explain the following protocols:
  - i. TCP (3 marks)
  - ii. RTSP (3 marks)
  - iii. HTTP (3 marks)
  - iv. E-mail Protocols (3 marks)
- b. Differentiate between the two types of Digital Subscriber Line internet access. (3 marks)

Question 6:

- a. Discuss the concept of client/server model. (7marks)
- b. Briefly explain the basic structure of an HTML document. (4 marks)
- c. Distinguish between Web Client and Web Servers. (4marks)