JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

DEPARTMENT OF COMPUTER SCIENCE & SOFTWARE ENGINEERING

UNIVERSITY EXAMINATION FOR THE DIPLOMA IN LINUX ENGINEERING

2ND YEAR 1ST SEMESTER 2019/2020 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: ICT 2217

COURSE TITLE: DESIGN AND IMPLEMENTATION OF SAN-NAS ENTERPRISE

STORAGE EXAM VENUE: **STREAM: LINUX ENGINEERING**

DATE: 14/08/19   **EXAM SESSION: 9.00 – 11.00am**

TIME: 2.00 HRS

INSTRUCTIONS

1. **Answer Question 1 (Compulsory) and ANY other TWO questions**
2. **Candidates are advised not to write on the question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION 1 [30 MARKS]

  a) Define DAS **(2marks)**
  b) Define what a storage Area Network (SAN) Is? **(2marks**
  c) What the difference between SAN and NAS **(2marks)**
  d) What is the primary objective of SAN? **(2Marks)**
  e) In what format is data stored in the SAN disk Drives? **(1mark)**
  f) In computing what is a protocol? **(1mark)**
  g) How does SAN Makes Computing Different **(1marks)**
  h) Why do we use the term "fibre" and not fiber in relation SAN **(1mark)**
  i) State four Alternatives to NAS? **(4marks)**
  j) What is RAID and why is it so important in relation to SAN **(4marks)**
  k) SAN uses wo types of protocols to move data across the network, state the them **(2 mark)**
  l) Who should use and not use SAN? **(2marks)**
  m) What makes SAN different from other storage technologies? **(2marks)**
  n) What is a clustered NAS and what the difference between it and traditional NAS **(4marks)**

QUESTION 2 [20 MARKS]

  a) What makes storage area network different from other storage technologies **(10 marks)**

  b) What features in storage area network makes it useful especially in large companies?

(10marks)

QUESTION 3 [20 MARKS]

  (a) What are The Alternatives to NAS? **(4 marks)**
  (b) Describe the advantages and disadvantages of NAS **(16 marks)**

QUESTION 4 [20 MARKS]

  (a) Differentiate between routing and routed protocol. Give two examples of each Give reasons why it is essential to perform backups within an organization. **(20marks)**

QUESTION 5 [20 MARKS]

  (a) Discuss the different types of backup and clearly bring out their differences. **(10 marks)**
  (b) What are the advantages and disadvantages associated with different types of backups

    mentioned above? **(10 marks)**