



THE UNIVERSITY OF ZAMBIA
SCHOOL OF NATURAL SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
CSC2101 COMPUTER SYSTEMS
TEST TWO(2)
June 18, 2018
1 HR 45 MINUTES

Answer all Questions
Keep your answers concise and to the point. Use the marks to guide you.

1. (30 points) Network Models
 - (a) (10 points) Describe the OSI seven layer model. Name each of the layers in the model and draw a diagram that shows the ordering of these layers. Write a paragraph describing the areas of function that each layer is responsible for.
 - (b) (8 points) Contrast the OSI model you have just described with the TCP/IP reference model.
 - (c) (12 points) Using a diagram show the correspondence between relevant protocol layers in the two models. Discuss the relative merits of each of these models in the context of modern computer networking
2. (3 points) State THREE (3) primary benefits of networking individual computers.
3. (5 points) List FIVE (5) network classifications based on physical size, ranked in order from the smallest (desktop) to the largest (global).
4. (2 points) What fundamentally differentiates the largest type of network from all the others?
5. (8 points) Distinguish between data, information and knowledge. In your answer, define knowledge management and explain its necessity and value to businesses.
6. (8 points) Name two well known data transport protocols provided by the Internet Transport Layer. Provide a brief description of each service and indicate what type of application might use that service
7. (20 points) List four different language paradigms that are mentioned in this course, giving a brief description and give one example language for each category.
8. (20 points) What are the characteristics of MIS? How do MIS differ from TPS? From DSS? From ESS?
9. (4 points) Discuss the 4 major characteristics of useful information.

repeat

UDP
TCP

LAN
WAN
MAN
WAN