



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND  
TECHNOLOGY**

**UNIVERSITY EXAMINATIONS**

**2013/2014 ACADEMIC YEAR**

**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**

**YEAR 3 SEMISTER 1**

**COURSE CODE SCS306**

**COURSE TITLE: INTERNET COMPUTING**

**TIME: 2 HOURS**

**Instructions:**

- I. This paper contains Five questions**
- II. Question one is compulsory**
- III. Answer any other two questions**

**Question one [30 marks]**

- a) Define the term internet and describe how internet was developed 6marks
- b) Accessing the internet requires some tools. Identify any four such tools 4marks
- c) Differentiate between server side and client side scripting language 4marks
- d) How does data move across the internet? 4 marks
- e) Write TCP and IP in full and show the difference between them. 4marks
- f) Differentiate between a web browser and a firewall. 2 marks
- g) Using syntax explain Group label 2marks
- h) Define firewall and the benefits associated with it 4marks

**Question Two [20 marks]**

- a) What is Computer virus 1 marks
- b) Explain the following protocols in network layer of the TCP/IP protocol
  - i. ICMP
  - ii. IP
  - iii. ARP
  - iv. RARP8 marks
- c) What is PHP 1marks
- d) Write PHP code segment to connect to MySQL database named Jaramogi 6marks
- (ii) In modern digital age dynamic websites are the darling of the users. Discuss 4marks

**Question Three [20 MARKS]**

- a) Briefly explain any four core benefits of Web Based Applications to business organization. 8marks
- b) Define a router and explain Dijkstra's routing Algorithm 6marks
- c) Write a one-line segment of code if you wanted to assign a suitable variable in JavaScript a number 5. 2 marks
- d) Differentiate between alert and prompt as used in java script using an example in each case 2marks
- e) Explain Inline Styles cascaded style sheet 2 marks

**Question Four [20 MARKS]**

- a) Explain any six Socket functional calls in socket programming in Unix 6marks
- b) Outline any three best practices that can be used to ensure that the information in an organization are secure 6 marks
- c) Write a html and JavaScript code to generate the form and to validate it such that when the form is not appropriately filled up it give a pop up message as shown 8marks



**Question Five [20 MARKS]**

- (a) Discuss policies and procedures which are generally adopted to ensure that systems are secure (6 marks)
- (b) There are many protocols in use when it comes to sending and receiving emails Explain in details how FTP and SMTP works first write the abbreviations in full, show how the two protocols differ. (8 marks)
- (c) In an e-voting system in Kenya there was a rumor of rigging and bungled election. It was alleged that some people manipulated and interfered with the data. Discuss three security threats which might have caused this anomaly (6 marks)