Instructions:

1. Answer question 1 (Compulsory) and ANY other 2 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 one 30 marks

(a) HTML stands for Hypertext mark-up language explain its structure.  

(b) Define a web page and explain how it is identified by a unique address called URL”. Support this statement by detailing components of mentioned unique address. (4 marks)

(c) Write a group box labels source code to generate the output below. (4 marks)

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Party Affiliation
- Democrat
- Republican
- Independent
```

d) What is Data definition List?, Using syntax demonstrate how to use data definition list. (6 marks)

(e) Explain the following terms i) Transmission Control Protocol (TCP) ii) User Datagram Protocols (UDP) iii) MIME iv) Common Gateway Interface (CGI). (8 marks)

(f) Each Computer has a unique IP address, Convert the following 32-bit Internet address to a binary format equivalent 192.168.100.254. (4 marks)

g) Explain how names are translated (resolved) into IP address. (2 marks)

Question two 20 marks

(a) Explain the differences between external style sheets and internal style sheets. (4 marks)

(b) State the advantages of using a cascaded style sheets (4 marks)

(c) Write CSS code to add a background image to a HTML document. (4 marks)
d) Explain the anchor tag and how it can be used in linking web pages. (4 marks)

e) Explain the following method attributes in dynamic website. (4 marks)
   
i. Post
   
   ii. Get

**Question three 20 marks**

a) The following is outputs generated by the use of option group write a code to generate the output. (8 marks)

![option group label]

b) Explain the differences between a checkbox and radio button. (4 marks)

c) Using appropriate syntax define Cascading Style Sheets (CSS). (4 marks)

d) Write a java script for prompting the user (creating a prompt command) (4 marks)

**Question Four 20 marks**

a) What is the difference between java and JavaScript? Provide sample codes in each to distinguish between the two. (4 Marks)

b) Using an appropriate example, demonstrate how the listed tags below can be implemented in Web Development. (8 marks)

(i) <colspan>

(ii) <Rowspan>
(iii) <form>…………………….</form>
(iv) <marquee>……………….</marquee>

(c) Explain using syntax how to format text in HTML
   {2 marks}

d) What is SGML and How is it different from HTML
   {2 marks}

e) Explain the working Simple Mail Transfer Protocol in email communication. {4 marks}

Question Five 20 marks

a) Using Cascaded Style Sheet, write a style sheet code that will change the color of all h1 headers to red, (4 marks)

b) Explain the following Flip Filters
   
   i. flipv    ii. fliph
   {6 marks}

c) Mr. Juma a Programmer with Infosys Solution in Nairobi was told to develop a login interface as shown below. Generate a html code to give the login interface. (10 marks)