[Knowledge for Development]

KIBABII UNIVERSITY

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UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

SPECIAL/ SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER ONE EXAMINATIONS

FOR THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE

COURSE CODE   :   CSC 213.

COURSE TITLE   :   APPLICATION DEVELOPMENT FOR

THE INTERNET

DATE: 03/02/2021 TIME: 08.00 P.M – 10.00 A.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO

QUESTION ONE [COMPULSORY] [30MARKS]

a) What is the difference between SOAP and REST?   (6 marks)

b) What is the use of a namespace in Web Development?   (2 marks)

c) What are the newly introduced input types in HTML5?   (3 marks)

d) What are the form elements that support media content in HTML5?   (5 marks)

e) What is SVG and why is it used?
(4 marks)

f) What is the use of Canvas in HTML?
(3 marks)

g) What is the difference between Canvas and SVG?   (4 marks)

h) What is the use of CORS?   (3 marks)

QUESTION TWO [20 MARKS]

a) Describe how page loading time be reduced?   (5 marks)

b) Explain the use of CORS?   (3 marks)

c) Difference between localStorage and sessionStorage objects?   (4 marks)
d) Outline some of the new features that are introduced in CSS3?   (4 marks)

e) What is responsive web design (RWD) in HTML and CSS?   (2 marks)

f) Outline some of the types of CSS that are used?   (2 marks)

QUESTION THREE [20 MARKS]

a) Bottom numbers that are option to go to the next pages.

a) Define pagination? How can pagination be implemented? (4 marks)

diving documents to different pages

b) Outline the components of the CSS box model? (4 marks)

b)
-Border
-padding
-margin
-content

c) Describe some of the properties of transitions in CSS3? (4 marks)

c)
-property
-duration
-timing function
-delay

d) Explain the use of pseudo-classes in CSS? (4 marks)

d) styling elements in CSS

d)
-hover
-active
-focus
-first child

e) What is the use of media queries in CSS3? (4 marks)

e) used for applying different styles based on device characteristics like screen size orientation

QUESTION FOUR [20 MARKS]

a) Explain z-index as used in CSS? used in positioning in CSS (3 marks)

b) Why are external style sheets preferred? (3 marks)

c) Describe long polling in Web Development? (3 marks)

Achieve run time communication between server and client

d) Outline some of the Web Development technologies that you know? (3 marks)

d)
HTML
CSS
JS
SQl

e) Differentiate between cookies and local storage? (3 marks)

e)Cookies
-temporary storage -limited memory 4kb
-expires
-less secure
-more accessible

local storage
-more storage 5mb
-no expiration
-more secure
-less accesible

f) What is the difference between XHTML and HTML? (3 marks)

g) How can styles or classes be changed in elements using JavaScript? (2 marks)

XHTML(extendable)
-has XML stricter syntax.

HTML
-anient syntax

QUESTION FIVE [20 MARKS]

a) Name some Javascript functions used to convert non numerical values into numbers. (3 marks)

b) List 3 ways in which Web applications are revolutionary compared to traditional applications. (3 marks)

c)

- Canvas:
  - Bitmap-based drawing technology.
  - Allows drawing shapes, lines, and images directly onto a web page using JavaScript.
  - Provides a rectangular area on the page for graphics.
  - Great for creating dynamic, interactive graphics like games or data visualizations.
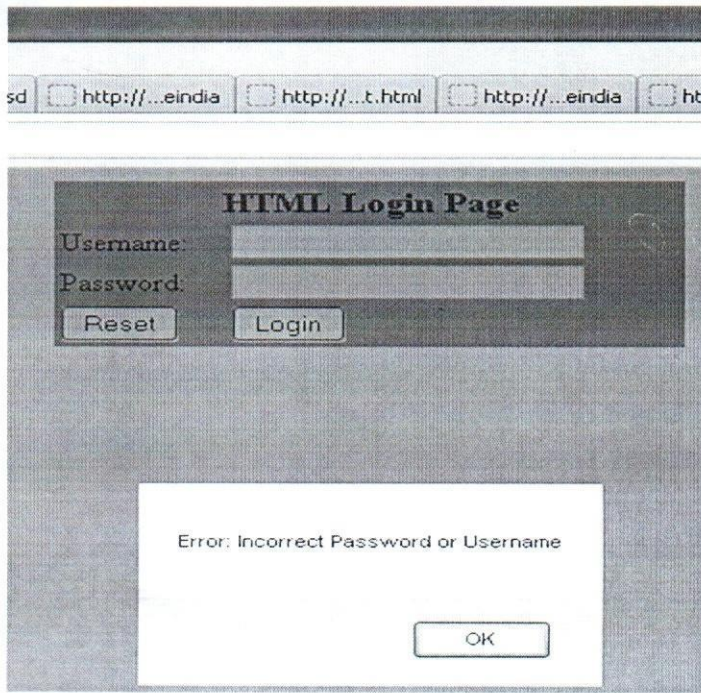 - Essentially a blank slate for creating various elements.

- *SVG (Scalable Vector Graphics):
  - Vector-based drawing technology using XML to define graphics.
  - Graphics can be scaled up or down without losing quality.
  - Ideal for creating static graphics like logos or icons.
  - Supports interactivity and animation, but not as well-suited for complex, dynamic graphics as Canvas.
  - Best for graphics that need to look sharp at any size.

- **Summary:**
  - **Canvas:** Best for dynamic, interactive graphics.
  - **SVG:** Best for creating sharp static graphics that are scalable.

d) Write a code to display the window above. (14 marks.)