

NATIONAL INSTITUTE OF BUSINESS MANAGEMENT
Diploma in Computer System Design 17.1P DCSD-3-4-13
Diploma in Software Engineering 17.1P DSE-3-4-12
Diploma in Computer Networks 17.1P DCN-3-4-12
Web Application Development


Date: 12.05.2018

Time Allowed: 3hrs

Answer all questions.

Question 1 (25 Marks)

a) Define HTML elements to design the following browser window output. (15 Marks)

Queens Hotel		X
		
<h2>Welcome to Queens Hotel</h2>		
<p>We provide the best service for your holiday. Come and see the different.</p>		<p>Guest ID: <input type="text"/></p>
<p>Our Services Includes;</p> <ul style="list-style-type: none"> • Free Wi-Fi • Swimming Pool • Room Service 		<p>Name: <input type="text"/></p>
		<p>Email: <input type="text"/></p>
		<p>Remarks: <input type="text"/></p>
		<p><input type="button" value="Submit"/></p>

b) Create the following web page using HTML. Use an **internal stylesheet** to add the required styles. (10 Marks)

H1 heading
blue color, font size 40pt.

H2 heading
Font face: Arial
Font size: 30pt

Paragraph
Font face: Arial, bold

H2 heading
Bold, italic

Paragraph
Font face: Garamond
Font size : 25pt

Heavy Duty Diagnostics Ltd

Diagnostic & Test Tools for Sale!

Stock clearance sale of Diagnostic & Test Tools will be held on 20th October 2012.

Venue: Company Premises-Colombo 07

Don't miss this opportunity!!!

1 of 4

Question 2 (15 Marks)

- a) Consider the form given below. Write a JavaScript function to include the following validations for the data input through the form. (You are required to write only the JavaScript function. Do not create the form). (10 Marks)
- The 'Emp ID' and 'Name' fields should not be empty.
 - 'Basic Salary' should be numeric.
 - 'Emp Type' should be selected.
 - Gender should be checked.

Display suitable messages to the user based on the result of each validation.

Employee Data

Emp ID

Name

Gender

☐ Male ☐ Female

Emp Type

Clerk ▾

Basic Salary

Submit

List item:

- Select Emp Type
- Clerk
- Staff
- Manager

- b) A web page consists of an H1 heading “Good morning” and a button. Write a JavaScript to change the background color of the webpage to “yellow” and font color of the H1 heading to “blue” for a click event of the button. (05 Marks)

Question 3 (15 Marks)

- a) Consider the form given below: (10 Marks)

Employee Data

Emp ID

Name

Gender

☐ Male ☐ Female

Emp Type

Clerk ▾

Basic Salary

Submit

Write a PHP page to accept data from the above form. Then calculate and display the employee information and calculated Allowance and Net Salary as mentioned below. (You do not need to create the form)

Emp Type	Allowance
Clerk	4000.00
Staff	5000.00
Manager	7500.00

- **Net Salary = Basic Salary + Allowance**

- b) Extend your PHP script to save data to a table called “tblSalary” already created with necessary fields in “EmpDB” using following information. (05 Marks)
- Hostname: localhost
 - User: user1
 - Password: 123

Question 4 (20 Marks)

- a) What are the usages of XML in internet technology? Give three examples. (03 Marks)
- b) Consider the book details table given below:

Book ID	Book Name	Category	Price (LKR)
B001	Adobe Photoshop	Designing	500.00
B002	Programming with C++	Programming	800.00
B003	Computer Networking	Networking	750.00

- Write a well-formed XML document to represent the data in the table. (10 Marks)

- ii. Using the above XML document, design an XSL document to display the following webpage.
(07 Marks)

Book Details		X
<p><u>ABC Bookshop Ltd</u></p> <p>We have Adobe Photoshop Books in Designing Category Starting from LKR 500.00.</p> <p><i>For more details contact us: 0112 66 88 12</i></p>		

H1 heading
Blue color, font size=40pt, Underlined, Center Align

Paragraph
Font size : 15pt, color=Brown

Paragraph
Font size : 25pt, color=Red , Bold

Question 5 (15 Marks)

- a) Design the following web form using ASP.Net controls to register items in an inventory control system. (10 Marks)

Item Code:	<input type="text"/>
Item Name:	<input type="text"/>
Qty:	<input type="text"/>
Unit Price:	<input type="text"/>
Total Price:	<input type="text"/>
Product Type:	<input type="checkbox"/> Local Product
<input type="button" value="Reset"/> <input type="button" value="Save"/> <input type="button" value="Calculate"/>	

- b) Write necessary ASP.Net statements for each **button click** events to perform following functionalities. (05 Marks)
- a. **On click Calculate Button:** Calculate Total Price and assign to Total Price field. If Product Type check box (**chkProType**) is **unchecked** then adds 15% tax to the Total Price.

$$\text{Total Price} = \text{Unit Price} * \text{Qty}$$

Question 6 (10 Marks)

- List two malware programs. (02 Marks)
- Briefly explain web security techniques used to protect web communication. (02 Marks)
- What are the common physical security implementations? (02 Marks)
- Explain Cookies used in client- server authentication. (04 Marks)