

#### 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

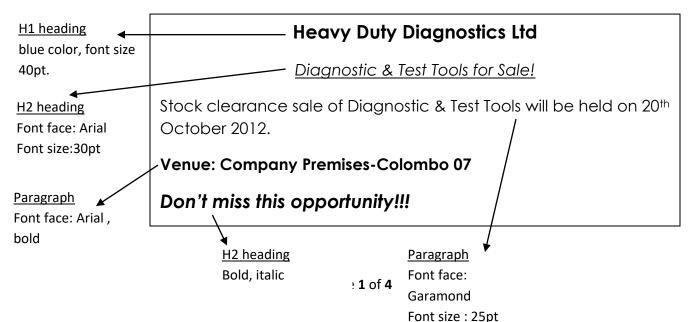
Answer all questions.

#### **Question 1 (25 Marks)**

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



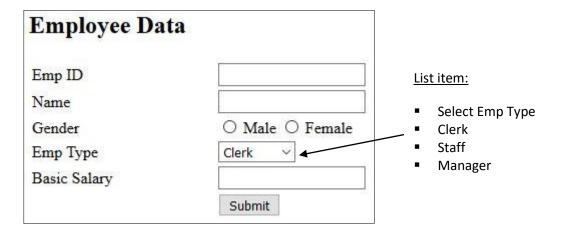
b) Create the following web page using HTML. Use an <u>internal stylesheet</u> to add the required styles. (10 Marks)



### **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)
  - i. The 'Emp ID' and 'Name' fields should not be empty.
  - ii. 'Basic Salary' should be numeric.
  - iii. "Emp Type' should be selected.
  - iv. Gender should be checked.

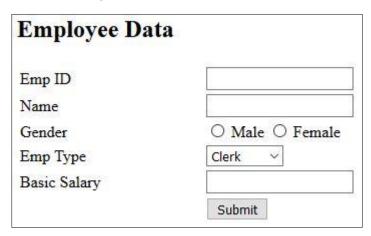
Display suitable messages to the user based on the result of each validation.



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)



Page **2** of **4** 

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)

i. Hostname: localhost

ii. User: user1

iii. Password: 123

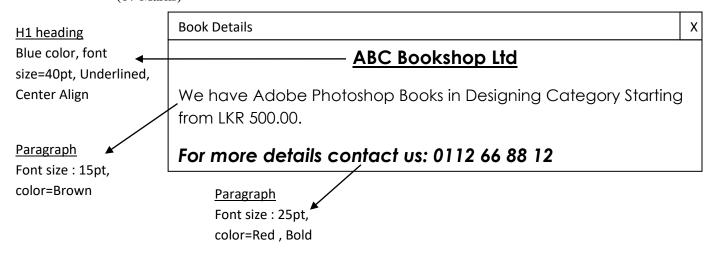
### **Question 4 (20 Marks)**

- 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

i. 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)



### **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:

Item Name:

Qty:

Unit Price:
Total Price:

Product Type: Local Product

Reset Save 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.

**Total Price = Unit Price \* Qty** 

# **Question 6 (10 Marks)**

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