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Department of Computer Science and Engineering
B. Sc. (Hons) In Mathematics
Semester Final Examination 2018(Jan-Jun)
Level 3 Semester I, Course Code: CSE 329, Credit: 2.0
Course Title: **Programming Language**

Time: **2 Hours**   Full Marks: **60**

[N.B. The figure in the right margin indicates the marks for respective question and split answer of any question is unacceptable]

Section-A
Answer any 3 (three) questions

1 a) What is HTML? Describe the structure of a HTML document with example.   1+3

   b) Define void HTML Element. Describe at least two void HTML element with example.   1+2

   c) What are the limitations of HTML? How can you overcome these limitations?   1+2

2 a) What is HTML Attribute? Explain the reasons to use an **id** attribute on an html element with proper example.   3

   b) How can you add a video file in your html document? Explain the procedure to handle the situation, when your browser does not support video files.   2+2

   c) Describes the **<img>** tag using **src**, **alt** and **border** attributes.   3

3 a) How can you link a HTML page with another HTML page? Explain.   3

   b) Define variable. Describes the process of declaration of a variable in Java.   3

   c) What is table? Write the HTML code to create the table shown below: 1+3

Gender	Average	
	height(feet)	weight(kg)
Males	5.5	55
Females	5.2	50

4 a) What is Object Oriented Programming (OOP)? Explain the terms "Encapsulation" and "Inheritance" with proper example.   2+3

   b) Explain the types of text input control field of HTML form with proper example.   3

   c) Is Java a platform independent programming language? Explain your answer.   2

1 a) What is CSS? Explain the basic format to write the CSS document with proper example.   1+3
   b) Describe the functions of **Child** and **Class** selectors with an example.   2+2
   c) How can you add an external CSS in your HTML document? Explain.   2

2 a) What is PHP? Write the advantage of using PHP in web programming.   1+2
   b) How can you test the type and change the type of a variable? Explain.   3
   c) Determine how many times the body of each loop will be executed.   2+2

   (i) $m=10;$n=7;
        While($m%$n>=0)
        {
            $m=$m+1;
            $n=$n+2;
        }

   (ii) $n=50;

        for($i=0;$i<=$n;$i=$i+3)
        {
            ....
            $i=$i-1;
        }

3 a) What is an array? Explain the basic format to create an indexed array and an associative   1+3
      array.
   b) Explain the process of sorting the values of an indexed and an associative array with proper   2+2
      example.
   c) What is a string? How can you count the number of a substring from a given string? Explain.   2

4 a) What is DBMS? Write the applications of database system in real world.   1+3
   b) Consider the following survey report of an international conference   6
      Table Name: Survey

ID	Name	Age	Country	Job	Income
1	Bob Smith	28	USA	Programmer	30000
2	Md. Sojib	31	Bangladesh	Teacher	40000
5	Lolit Modi	24	India	Engineer	45000
7	Jane Smith	41	USA	Teacher	38000
8	Md. Rashed	27	Bangladesh	Business	47000
11	Johnson	45	Pakistan	Business	35000
9	Trelok Ray	23	Nepal	Engineer	25000

Now, write SQL queries for the following operations:
(i)   Show all information of the participant in the conference.
(ii) Show the names of all participants who is a teacher and comes from Bangladesh.
(iii) Show the details information of all participants whose monthly income are between
      35000 and 45000.
(iv) Show the name of participants whose 2nd character of the name is 'o' and above 25
      years old.