**CSCI 6314 e-Commerce**

**Midterm Exam 2020**

**Please complete the exam in word and submit it to blackboard. It is a 1.5 hour exam. I will extend it to 2 hours to those who need it, but no longer than the 2 hours. Must complete by then.**

1. Compare and contrast general partnership and limited partnership **[10]. I expect a minimum of 5 items.**

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| **General Partnership** | **Limited Partnership** |
| All partners have an equal rights.  All partners participates in the company’s life.  All partners have the same liability. In other words, the responsibility for the partners within the company is same. | The limited partnership is used for the capital accumulation.  Some of the partners have the limited rights.  The limited partners doesn’t have the liability of general partners. |

1. Indicate purpose of these tax forms and which entity uses them. [10 points]

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| **Form** | **Purpose and user** |
| 1065 | The form used in the partnership. Describe in the funds and incomes of whom filed it in. |
| K1 | The additional schedule to fill in in the partnership. Describes available partners in the partnership and their funds and incomes. Used together with the form 1065. |
| Sch C | Used together with Form 1040 for sole proprietorship. Describes the funds and the income of the sole proprietor, if the person is involved in this. |
| 941 | The form filed in by the C corporations (Because S corporations might have the sole proprietorship). Describe the funds and the income of the corporation. |

1. These are the components of Web Services. Please indicate what each term stands for and function of each. [10 POINTS]

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| SOAP | Simple Object Access Protocol. Connects web services between each other. |
| UDDI | Universal Description, Definition, and Integration. To collect, publish, and describe available web services. |
| WSDL | Web Services Description Language. To describe available web services. |

1. Differentiate between compiled and interpreted languages **[10]. I expect minimum of 5 entries.**

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| COMPILED | INTERPRETED |
| The compiled languages are faster.  The whole code is compiled. If there is an error, the code won’t load.  The code is compiled by the OS. | The interpreted languages are slower than compiled, but faster than the virtual machines.  The code is compiled line-by-line. If there is an error, only the errorenous line won’t load.  The code is compiled by some program (browsers, etc.) |

1. Write necessary PHP code to connect to a database. [5 points]

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| <?php  define("DB\_HOST", "localhost");  define("DB\_USERNAME", "username");  define("DB\_PASSWORD", "passsword");  define("DB\_NAME", "dbname");  $conn = new mysqli(DB\_HOST, DB\_USERNAME, DB\_PASSWORD, DB\_NAME); ?> |  |

1. Write essential code to find interest for each day (adding it to the principle each day); do this for 365 days adding a deposit every 30 days and display total deposits and interest for one year. **[10]**

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| document.write("<tr><td>Beginning Balance</td><td>Yearly Deposit</td><td>Interest Rate</td><td>Ending Balance</td></tr>");  var BeginnningBalance = InitialInvestment; // InitialInvestment is defined  var EndingBalance = InitialInvestment;  var InterestForYear;  for (let i=1; i <= 365; i++)  {  EndingIncome \*= (1+InterestRate/36500);  if (i % 30 == 0)  {  EndingIncome += MonthlyDeposit; //Monthly deposit is defined initially  }  if (i % 365== 0)  {  InterestForYear = EndingIncome - BeginnningIncome - 12\* MonthlyDeposit;  document.write("<tr><td>" + BeginnningBalance + "</td><td>" + InterestForYear + "</td><td>" + 12\* MonthlyDeposit + "</td><td>" + EndingBalance + "</td></tr>");  EndingBalance = BeginnningBalance;  }  } |

1. What are the **five** major components of management process **[5]**

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| Plan (Create the plan)  Organize (Group the tasks inside the plan)  Staff (Hire the staff for the tasks)  Direct (Let the managers to do something)  Control (Check if the management and managers are OK) |

1. Differentiate between common stock and preferred stock **[4],** also stock split and reverse split. **[4]**

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| **Common stock vs. preferred stock** | **Stock split vs. reverse split** |
| Common Stock is the only available stock when the corporation is created.  Common Stockholders cannot use some additional features as the holders of Preferred Stock.  The holders of preferred stock can share the stock between each other legally.  Also, in some entity types, it is not possible to create preferred stock (for example, S corporations). | In the stock split, the number of stock is increased, but their price is decreased. For example, if we do 1:2 stock split, we increase the stock 2 times, but in this moment, their value is decreased 2 times, too.  In the reverse split, we decrease the number of stock, but their price is increased. For example, if we do 3:1 reverse stock split, we decrease the number of stock 3 times, but increase their price 3 times. |

1. Create a really short.css file and a .html file. Use the .css file within the .html file. [8 points]

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| **CSS code and File name** | **HTML code and filename** |
| h1  {  text-color: red;  } | <!DOCTYPE html>  <html>  <head>  <link href=**"**short.css**"** type=**"**css/stylesheet**"**>  </head>  <body><h1>Hello World!</h1></body>  </html> |

1. A lecture was dedicated explaining how information is read from a PHP form and used. Please explain this **[10]**

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| **Difference between Post and Get** | **How info is transmitted from form to HTML** |
| * The number of transferred characters (1024 in Get and no limit in Post) * The sent information is visible in Get, while in the Post, you cannot see the Information (for example, in the address bar). * The post is used for sensitive information, while the get is used to bookmark. | *First of all, the method is described in the <form> method, for example, <form method="post">. After the submission, the data is sent to the server, where Common Gateway Interface takes the variables sent and executes it with its interpreter. After that, the results sent back by the variables back and loaded by the client’s browser.* |

1. What are the 8 essential components of a business plan? [8 points]

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| Executive Summary (Some short summary of the company’s business)  Company Description (The description of the company)  Market Research (The research of the company’s potential market)  Organization and the Management (The structure of the company)  Product and Service Line (The available products and services)  Marketing and Sales (The marketing strategy)  Funding Request (The funds available in the establishment)  Financial Projections (the plan and estimation of the income) |

1. Write functions for push **[3]** and pop using an array based stack **[3].**

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| **Pop** | **Push** |
| function pop()  {  element = stack[top];  top = top – 1;  return element;  } | function push(element)  {  stack[top] = element;  top = top + 1;  } |