**T.Y.BSc.I.T. Sem V A.T.K.T. Internal/Practical Exam (2019-20)**

**Subject : IOT**

**Gurav Aniket (4054624) - Internal**

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| 1. | Design the principals of IOT? |
| 2. | Explain the five metaphors of IOT? |
| 3. | Explain communication protocols used in IOT? |
| 4. | Explain causes of Poor Affordances? |
| 5. | Explain UDP (User Datagram Protocol)? |

**Gurav Aniket (4054624) - Practical**

Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi

**Shah Neerajkumar (4054682) - Internal**

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| 1. | Discuss Open Source and Closed Source Hardware and Software? |
| 2. | Discuss the factors we should consider when designing to build IOT device. |
| 3. | Who is making IOT? |
| 4. | Small and Loosely Joined in IOT? |
| 5. | Explain seven principals of IOT? |

**Subject : Software Project Management**

**Shah Neerajkumar (4054682) - Internal**

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| 1. | Explain in detail SCRUM. |
| 2. | Explain expert judgment in software management |
| 3. | Why do we need to manage the entire software development? |
| 4. | Explain project management life cycle . |
| 5. | Explain different software effort estimation technique |

**Subject : Project Dissertation**

**Shah Neerajkumar (4054682) - Practical**

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| 1. | Write the following details based on your project |
| A | Abstract |
| B | Use-case design |
| C | Class design |
| D | DFD |
| E | Advantages and Disadvantages of your project |

**Navik Rahul (4054652) - Practical**

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| 1. | Write the following details based on your project |
| A | Abstract |
| B | Use-case design |
| C | Class design |
| D | DFD |
| E | Advantages and Disadvantages of your project |

**Yadav Ganesh (4054712) - Practical**

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| 1. | Write the following details based on your project |
| A | Objective |
| B | Background |
| C | Future Enhancements |
| D | Database Structure |
| E | Testing Details |

**Subject : Artificial Intelligence**

**Shah Neerajkumar (4054682) - Internal**

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| 1 | What is Artificial Intelligence? State its applications. |
| 2 | Explain PEAS description of task environment for Automated Taxi. |
| 3 | What is rational agent? Discuss in brief about rationality. |
| 4 | Explain A\* algorithm. |
| 5 | Formulate the problem for water jug problem |

**Gurav Aniket (4054624) - Internal**

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| 1 | Write a note on foundations of AI. |
| 2 | Explain IDDFS algorithm. |
| 3 | Write a note on Architecture of an Agent. |
| 4 | Explain various terminologies used in Search Tree. |
| 5 | Write a note on Bidirectional Search. |

**Subject : Advanced Web Programming**

**Shah Neerajkumar (4054682) - Internal**

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| 1 | What is .NET Framework? Explain its architecture with help of diagram. |
| 2 | What is namespace? How to create namespace and alias? |
| 3 | Explain different types of data types in C#. |
| 4 | Using web controls write a calculator program. |
| 5 | Write a program to demonstrate the use of calendar control to perform the following operations:   1. Display message in a calendar control. 2. Display vacation in a calendar control. |

**Shah Neerajkumar (4054682) - Practical**

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| 1. | Create an application to demonstrate following operations   1. Generate Fibonacci series. 2. Test for prime numbers. 3. Test for vowels. 4. Use of foreach loop with arrays 5. Reverse a number and find sum of digits of a number. |

**Yadav Ganesh (4054712) - Practical**

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| 1. | Demonstrate the use of Calendar control to perform following operations.  a) Display messages in a calendar control  b) Display vacation in a calendar control  c) Selected day in a calendar control using style  d) Difference between two calendar dates |
| 2 | Create a Registration form to demonstrate use of various Validation controls. |

**Subject : Enterprise Java**

**Shah Neerajkumar (4054682) - Internal**

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| 1 | What is an enterprise Application? Explain architecture of an enterprise application. |
| 2 | What is JDBC? Explain architecture of JDBC in Detail? |
| 3 | What is Servlet and Why Servlets? |
| 4 | What is Cookies? Explain sending and reading of Cookie in java Servlet? |
| 5 | What is Non-Blocking I/O? |

**Shah Neerajkumar (4054682) - Practical**

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| 1. | |  |  | | --- | --- | | **Implement the following Servlet applications with Cookies and Sessions.** | | | a. | Using Request Dispatcher Interface create a Servlet which will validate the password entered by the user, if the user has entered "Servlet" as password, then he will be forwarded to Welcome Servlet else the user will stay on the index.html page and an error message will be displayed. | | b. | Create a servlet that uses Cookies to store the number of times a user has visited servlet. | | c. | Create a servlet demonstrating the use of session creation and destruction. Also check whether the user has visited this page first time or has visited earlier also using sessions. | |

**Rahul Navik (4056552) - Practical**

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| 1. | |  |  | | --- | --- | | **Implement the following JSP applications.** | | | a. | Develop a simple JSP application to display values obtained from the use of intrinsic objects of various types. | | b. | Develop a simple JSP application to pass values from one page to another with validations. (Name-txt, age-txt, hobbies-checkbox, email-txt, gender-radio button). | | c. | Create a registration and login JSP application to register and authenticate the user based on username and password using JDBC. | |