|  | F.Y.BSc.I.T. Sem I A.T.K.T. Internal/Practical Exam December (2020-21) |
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| Subject : Digital Electronics (Internal) |  |
| Roll Number - 143 |  |
| 1 | What is logic gate? List and explain basic gates. |
| 2 | Explain the combinational logic circuit with neat labelled diagram. |
| 3 | Write a note on full adder. |
| 4 | Write a short note on register. |
| 5 | Write a note on Universal Gates. |
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| F.Y.BSc.I.T. Sem II A.T.K.T. Internal/Practical Exam December (2020-21) |  |
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| Subject : Microprocessor Architecture (Internal) |  |
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| Roll Number - 154 |  |
| 1 | What are the various addressing modes of 8085 microprocessors? |
| 2 | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |
| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |
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| Roll Number - 132 |  |
| 1 | What are the various addressing modes of 8085 microprocessors? |
|  | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |


| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
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| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |

## 126-Gautam Salian

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| 2 | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |
| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |

## Roll Number - 150

| 1 | What are the various addressing modes of 8085 microprocessors? |
| :--- | :--- |
| 2 | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |
| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |


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|  | Roll Number - 150 |
| 1 | What are the various addressing modes of 8085 microprocessors? |
| 2 | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |
| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |


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| :---: | :---: |
|  | Roll Number - 145 |
| 1 | What are the various addressing modes of 8085 microprocessors? |
| 2 | Explain the instructions LHLD, XCHG, SHLD, PUSH and POP. |
| 3 | Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. |
| 4 | Write a short note on SIM instruction. |
| 5 | List and describe the special Pentium registers. |
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|  | Subject : Microprocessor Architecture (Practical) |
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|  | Roll Number - 145 |
| 1 | Write a program to shift an eight bit data four bits right. Assume that data is in register C. |
| 2 | Write a set of instructions to alter the contents of the flag register in 8085 . |
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|  | Subject : Object Oriented Programming (Internal) |
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|  | Subject : Web Programming (Internal) |
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|  | Roll Number - 119 |
| 1 | What is Internet? Write advantages of E-Commerce |
| 2 | What are different types of list? |
| 3 | What is JavaScript and what are the features of JavaScript? |
| 4 | What is XML? Write its advantage |
| 5 | What is the advantage of PHP with MYSQL |


|  | Subject : Numerical \& Statistical Methods (Internal) |
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|  | Hasan zeeshan javed |
|  | List and explain different types of errors. |
| 2 | What are the different application of Linear Programming |
| 3 | What are discrete random variables? Exaplin with an example. |
| 4 | Explain Floating point of numbers and Errors |
| 5 | What is Interpolation method? Give an example. |
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| 1 | List and explain different types of errors. |
| 2 | What are the different application of Linear Programming |
| 3 | What are discrete random variables? Exaplin with an example. |
| 4 | Explain Floating point of numbers and Errors |
| 5 | What is Interpolation method? Give an example. |
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| 1 | List and explain the various toxins present in computer systems. |
| 2 | Discuss cost saving in power consumption by desktop and data centers. |
| 3 | Write a short note on Basel Action Network |


| 4 | List the tips to keep water usage under control. |
| :---: | :---: |
| 5 | With neat labeled diagram explain the phases of a computer product's life cycle. |
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| S.Y.BSc.I.T. Sem IV A.T.K.T. Internal/Practical Exam December (2020-21) |  |
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| Subject : Embedded Systems (Practical) |  |
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| Roll Number - 227 |  |
| 1 | Scanning the keypad |
| 2 | Toggle the LEDs ON and OFF (Blinking LEDs) that are connected to PORT1 of the 8051 Microcontroller. |
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| Roll Number - 212 |  |
| 1 | How to generate Sine wave using 8051. |
| 2 | Traffic Signal |
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| Subject : Core Java (Internal) |  |
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| Roll Number - 231 |  |
| 1 | What are the various features of Java? Explain. 5 |
| 2 | Write short note on Java Virtual Machine. 5 |
| 3 | Explain the term Autoboxing and Unboxing in Java with example. 5 |
| 4 | Write detailed note on Garbage Collection. 5 |
| 5 | Explain the concept of method overloading with example. |

## Subject : Core Java (Practical)

## Roll Number - 227

| 1 | Write a java program to accept one number from the user and print its multiplication table upto 10. |
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| 2 | Write a java program to reverse the digits of a number. Accept number from the user. |
| 3 | Write a program to implement the concept of multilevel inheritance. |
| 4 | Write a program in java to demonstrate try with multiple catch blocks in exception handling. |
| 5 | Write a java program to fine the average of five numbers using array. |

## Roll Number - 212

| 1 | Write a java program to accept one number from the user and print its multiplication table upto 10. |
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| 2 | Write a java program to reverse the digits of a number. Accept number from the user. |
| 3 | Write a program to implement the concept of multilevel inheritance. |
| 4 | Write a program in java to demonstrate try with multiple catch blocks in exception handling. |
| 5 | Write a java program to fine the average of five numbers using array. |
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|  | Subject : Software Engineering (Internal) |
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|  | Roll Number - 227 |
| 1 | Differentiate between functional and non-functional requirements |
| 2 | Write short note on modular decomposition |
| 3 | Write short note on Rapid Application Development. |
| 4 | Write short note on cost estimation techniques |
| 5 | What is service oriented architecture? What are the benefits of SOA? |

## Subject : Software Engineering (Practical)

## Roll Number - 227

1 Draw a class diagram to demonstrate your project.
2 Draw an activity diagram to demonstrate your project

## Roll Number - 241

| 1 | Draw ER diagram to demonstrate your project |
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| 2 | Draw Use Case diagram to demonstrate your project |
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| Roll Number - 212 |  |
| 1 | Draw an activity diagram to demonstrate your project |
| 2 | Draw ER diagram to demonstrate your project |
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| Subject : Computer Oriented Statistical Techniques (Internal) |  |
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| Roll Number - 231 |  |
| 1 | On a final examination in statistics, the mean grade of a group of 150 students was 78 and the standard deviation was 8.0. In algebra, however, the mean final grade of the group was 73 and the standard deviation was 7.6. In which subject was there the greater (i) absolute dispersion and (ii) relative dispersion? |
| 2 | For a group of 200 candidates, the mean arid standard deviation of scores were found to be 40 and 15 respectively. Later on, it was discovered that the scores 43 and 35 were misread as 34 and 53 respectively. Find the corrected mean and standard deviation corresponding to the corrected figures. |
| 3 | $\begin{aligned} & \text { Define thefollowing : i) Range ii)Quartiledeviation iii)MeanDeviation iv)Standarddeviation v) } \\ & \text { Variance } \end{aligned}$ |
| 4 | If a pair of dice is thrown and $X$ denotes the sum of the numbers on them. Find the probability distribution of $X$. Also find the expectation of $X$ |
| 5 | What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance. |

## Roll Number - 238

On a final examination in statistics, the mean grade of a group of 150 students was 78 and the standard deviation was 8.0. In algebra, however, the mean final grade of the group was 73 and the standard deviation was 7.6 . In which subject was there the greater (i) absolute dispersion and (ii) relative dispersion?
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Define thefollowing : i) Range ii)Quartiledeviation iii)MeanDeviation iv)Standarddeviation v)
3 Variance
If a pair of dice is thrown and $X$ denotes the sum of the numbers on them. Find the $4 \quad$ probability distribution of $X$. Also find the expectation of $X$

| 5 | What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance. |
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## Roll Number - 233

|  | On a final examination in statistics, the mean grade of a group of 150 students was 78 and the <br> standard deviation was 8.0. In algebra, however, the mean final grade of the group was 73 and the <br> standard deviation was 7.6. In which subject was there the greater (i) absolute dispersion and (ii) <br> relative dispersion? |
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| 4 | If a pair of dice is thrown and X denotes the sum of the numbers on them. Find the <br> probability distribution of $X$. Also find the expectation ofX |
| 5 | What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance. |

## Roll Number - 229

|  | On a final examination in statistics, the mean grade of a group of 150 students was 78 and the <br> standard deviation was 8... In algebra, however, the mean final grade of the group was 73 and the <br> standard deviation was 7.6. In which subject was there the greater (i) absolute dispersion and (ii) <br> relative dispersion? |
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| 3 | Define thefollowing : i) Range ii)Quartiledeviation iii)MeanDeviation iv)Standarddeviation v) <br> Variance |
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| 5 | What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance. |
|  | Subject : Computer Oriented Statistical Techniques (Practical) |

## Roll Number - 227

Twenty sample of size 100 each are selected from a very large consignment of blades. Find the expected number of samples that will have at least 14 defective blades if the consignment has $10 \%$ defectiveblades.
$20 \%$ of apples in a large consignment are found to be bad. Find the probability that at least $25 \%$
2 apples are bad in a sample size of 400 drawn fromit.
3 Explain thefollowing i) Coefficient of correlation ii) Standard Error ofEstimate
What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance.
Form the given sample of 100, 35 are working as a professor. Construct a $95 \%$ confidence interval for the
probability that almost most of the education people from the sample are working as aprofessor.

## Roll Number - 212

Twenty sample of size 100 each are selected from a very large consignment of blades.Find the expected number of samples that will have at least 14 defective blades if the consignment has $10 \%$ 1 defectiveblades.
$20 \%$ of apples in a large consignment are found to be bad. Find the probability that at least $25 \%$
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3 Explain thefollowing i) Coefficient of correlation ii) Standard Error ofEstimate
What is hypothesis test? Explain types of hypothesis. Explain level ofsignificance.
Form the given sample of 100, 35 are working as a professor. Construct a $95 \%$ confidence interval for the
5 probability that almost most of the education people from the sample are working as aprofessor.

## Subject : Computer Graphics (Internal)

## Roll Number - 231

| 1 | Derive Bresenham's circle drawing Algorithm |
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| 2 | Translate the point (3,4) with i) 2 units along X-axis and 2 units along Y-axis ii) 2 unit along X-axis <br> and 3 units along Y-axis |
| 3 | Explain viewing pipeline in detail. |
| 4 | Write Cohen Sutherland line Clipping Algorithm |
| 5 | Write short note on Bezier curve. |

## Subject : Computer Graphics (Practical)

## Roll Number - 227

Divide your screen into four region, draw circle, rectangle, ellipse and half ellipse in each region with appropriate message.
2 Draw a simple hut on the screen.
3 Develop the program forBresenham's Line drawing algorithm.

| 4 | Develop the program for the mid-point circle drawing algorithm. |
| :--- | :--- |
| 5 | Write a program to implement 2D scaling. |
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|  | Roll Number - 212 |
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| 2 | Draw a simple hut on the screen. |
| 3 | Develop the program forBresenham's Line drawing algorithm. |
| 4 | Develop the program for the mid-point circle drawing algorithm. |
| 5 | Write a program to implement 2D scaling. |
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