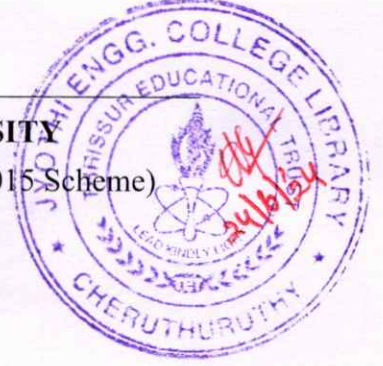


Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Third Semester B.Tech Degree (S,FE) Examination June 2024 (2015 Scheme)

**Course Code: MR205****Course Name: SCIENCE OF MEASUREMENTS**

Max. Marks: 100

Duration: 3 Hours

**PART A***Answer all questions, each carries 5 marks.*

Marks

- |   |  |   |
|---|--|---|
| 1 | Define the terms a) accuracy, b) precision, c) resolution, d) sensitivity and e) measuring range.                  | 5 |
| 2 | Explain any 5 methods of measurement.  | 5 |
| 3 | Identify three advantages and two disadvantages of using an RTD compared to a thermocouple.                        | 5 |
| 4 | Explain what wringing is and describe the procedure involved.  | 5 |
| 5 | How can measurement of angles be done using a sine bar? Outline on the measurement process using suitable figures. | 5 |
| 6 | Write a note on angle measurement using angle dekkor.  | 5 |
| 7 | What are the types of errors in thread?  | 5 |
| 8 | Explain the working of bench micrometer  | 5 |

**PART B***Answer any three questions, each carries 10 marks.*

- |    |   |    |
|----|---|----|
| 9  | a) Draw the block diagram of a generalized measurement system. Outline the functions of each block. | 10 |
| 10 | a) Write a note on zero order, first order and second order measuring devices                       | 10 |
| 11 | a) With a neat figure, explain capacitance transducers.   | 10 |
| 12 | a) With a neat figure, explain McLeod gauge working   | 10 |
| 13 | a) What is the principle of working of an autocollimator? Use suitable figures in your answer.      | 10 |

**PART C***Answer any two questions, each carries 15 marks.*

- |    |   |    |
|----|---|----|
| 14 | a) Write short notes on the following:                      | 15 |
|    | i) Slip gauges ii) Tracer profilograph iii) Surface texture |    |

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Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

B.Tech Degree S3 (S,FE) / S1 (PT) (S,FE) Examination June 2024 (2015 Scheme)

**Course Code: EE207**

**Course Name: COMPUTER PROGRAMMING**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 5 marks.*

Marks

- |   |  |     |
|---|--|-----|
| 1 | Explain briefly compiler, assembler and interpreter  | (5) |
| 2 | With the help of an example point out the difference between assignment and equality operator in C | (5) |
| 3 | Write a C program to find the sum of digits of a number  | (5) |
| 4 | Point out the differences between structure and union  | (5) |
| 5 | Write down a C program to find the length of a string without using string handling function       | (5) |
| 6 | Explain the concept of recursion with an example   | (5) |
| 7 | Differentiate between address of operator and value of operator in pointers with examples          | (5) |
| 8 | Write down the arithmetic operators in python with relevant examples                               | (5) |

**PART B**

*Answer any two full questions, each carries 10 marks.*

- |    |  |     |
|----|--|-----|
| 9  | a) Explain different data types in C   | (5) |
|    | b) Write an algorithm and draw flowchart to check whether a year is leap year or not | (5) |
| 10 | a) Write a C program to check whether a given number is prime or not                 | (5) |
|    | b) Write a C program to convert the time given in 12 hour format to 24 hour format   | (5) |
| 11 | a) Write down the differences between while and do while statements                  | (5) |
|    | b) Explain the structure of C program  | (5) |

**PART C**

*Answer any two full questions, each carries 10 marks.*

- |    |  |     |
|----|--|-----|
| 12 | a) Write a C program to read a matrix A and check whether the matrix is symmetric or not | (8) |
|----|--|-----|

