

**Assignment No. 1**

**Course Code: EMTH403**

**Registration Number: \_\_\_\_\_**

**Instructions:**

- a. Attempt all questions given below in your own handwriting. Assignment in typed format will not be considered for evaluation.**
- b. The student has to complete the assignment in the allocated pages only. Any other page in case utilized shall not be considered.**

Q1. Define Pigeonhole principle and Generalized Pigeonhole principle by giving proper example.  
[10 Marks] [CO3, L1]

**Signature of the Student**\_\_\_\_\_Page 1 of 2

**Note:-**

**CO: is the Course Outcome as per your course syllabus.**

**L1-L6: Learning level objectives as per Revised Bloom Taxonomy (RBT).**

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**Q2. (a) Define The Principle of Inclusion–Exclusion for three sets.**

**(b) A total of 1232 students have taken a course in Spanish, 879 have taken a course in French, and 114 have taken a course in Russian. Further, 103 have taken courses in both Spanish and French, 23 have taken courses in both Spanish and Russian, and 14 have taken courses in both French and Russian. If 2092 students have taken at least one of Spanish, French, and Russian, how many students have taken a course in all three languages? [10 Marks] [CO3, L2]**

**Signature of the Student \_\_\_\_\_ Page 2 of 2**

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