



# JAMIA HAMDARD

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**(Hamdard University)**

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NEW DELHI-110062**

**Accredited by NAAC in 'A' Category**

## CERTIFICATE

On the basis of the declaration submitted by Miss. Tanu Singh (Enrolment No 2020-501-061) a student of MCA (Master of Computer Applications), I hereby certify that the dissertation entitle "Sorting analyzer with visualizer" being submitted to the Department of Computer Science & Engineering, Jamia Hamdard, New Delhi in partial fulfillment of the requirement for the award of the degree of MCA (Master of Computer Applications) is carried out by him under my supervision.

**Mr. Nafisur Rahman  
(Supervisor)**

**Dr. Farheen Siddiqui  
Head, Department of CSE**