# CHENNAI MATHEMATICAL INSTITUTE

#### M.Sc. Data Science Entrance Examination

1<sup>st</sup> August 2021

Enter your Admit Card Number: D	-	
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# IMPORTANT INSTRUCTIONS

- This booklet consists of 22 pages, including this cover page. Pages 3 to 12 contain space to answer the questions in Part B. Pages 13 to 22 are meant for rough work.
  - Enter your answers for part (A) into the computer. You have to select exactly the true option(s) for each question. Please read the instructions in the question paper.
  - For questions in part (B), you have to write your answer with a short explanation in the space provided for each question.
  - For numerical answers, the following forms are acceptable: fractions, decimals, symbolic e.g.:  $\binom{n}{r}$ ,  ${}^{n}P_{r}$ , n! etc.
  - You may use blank pages at the end for rough work or if you need extra space for any problem.
    Clearly label any such solution overflowing to the last pages.
- Time allowed is 3 hours. Total points: 100 = 40 for part A + 60 for part B.
- Part A will be used for screening. Part B will be graded only if you score a certain minimum in part A. However your scores in both parts will be used while making the final decision.

	Points	Remarks
Part A		
Part B		
Total		

## For office use only

B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	Total
B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	Total

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## Part B

For questions in part (B), you have to write your answer with a short explanation in the space provided below. For numerical answers, the following forms are acceptable: fractions, decimals, symbolic e.g.:  $\binom{n}{r}$ ,  ${}^{n}P_{r}$ , n! etc.

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

(11)

(12)

(13)

(14)

(15)

(16)

(17)

(18)

(19)

(20)