

Birla Institute of Technology and Science, Pilani, Pilani Campus
Technical Communication (BITS F437)
Semester II _ 2022-23
Comprehensive Examination

MM: 40

Duration: 8.00 AM – 11.00 AM

Date: 9th May 2023

Answer all questions and write legibly.

You should complete answering a question before taking another one.

I. Rearrange the following jumbled sentences to create a coherent essay on the topic ‘Women’s Contribution to Mathematics in India’. (10 Marks)

1. Despite the significant contributions made by women in mathematics, their achievements often go unrecognized.
2. One of the most famous women mathematicians in India is Shakuntala Devi, also known as the ‘Human Computer’.
3. Another notable woman mathematician in India is Raman Parimala, who has made significant contributions to the field of algebra. She has received numerous awards and honors for her work, including the prestigious Shanti Swarup Bhatnagar Prize.
4. Women have played a vital role in the development of mathematics in India, making significant contributions to the field despite facing numerous obstacles and societal barriers.
5. She was known for her exceptional mental calculation abilities and is regarded as one of the greatest mental calculators of all time.
6. Other notable women mathematicians in India include Rajani V. Joshi, who made significant contributions to algebraic geometry, and Padma Bhushan awardee Sudha Bhattacharya, who has made significant contributions to number theory and algebraic geometry.
7. Despite facing numerous challenges, including discrimination and limited access to education and resources, women have made significant contributions to mathematics in India.

8. Their achievements have helped to shape the field and pave the way for future generations of women mathematicians.
9. In conclusion, women have made significant contributions to mathematics in India, despite facing numerous obstacles and societal barriers.
10. It is essential to recognize and celebrate the contributions made by women in mathematics and to continue to promote gender equality and diversity in the field.

II. **Job application and cover letter.** (10 Marks Application +10 Marks Cover letter= **20 Marks**)

Dr. Shalini Kamat has recently graduated with a PhD in mathematics from a reputable university. She has conducted extensive research in the field of algebraic topology and has published several papers in leading academic journals. After completing her degree, Dr. Kamat has decided to apply for a position as a research analyst at a financial institution. The position requires expertise in mathematical modeling and data analysis, which aligns with Dr. Kamat's research experience and skill set.

To apply for the position, Dr. Kamat has to prepare a job application that includes a cover letter. In her application, she highlights her academic achievements, research experience, and technical skills relevant to the position. She also expresses her passion for applying her mathematical expertise to make a tangible impact in the financial industry.

III. **Write an essay of 500- 600 words on the topic '*The Role of Technology in Education*'. (10 Marks)**