Maths Paper Solution Prompt

Create a comprehensive GTU Mathematics paper solution following these guidelines:

Structure:

- Use clean headings: Q.1 [marks], Q1.1 [marks] (no long text in headings)

- Put full questions in **bold** below headings

- Include complete questions before solutions

- Solve all OR questions

Content:

- Comprehensive step-by-step solutions for weak students

- No word count restrictions for math papers

- Detailed mathematical reasoning with proper LaTeX formatting, so that it renders properly in hugo with Katex, pandoc can covert proper pdf using xelatex, and it renders properly in github pages.

- Tables/diagrams where helpful

Format:

```
## Q.1 [14 marks]
**Fill in the blanks using appropriate choice from the given options**

### Q1.1 [1 mark]
**If $f(x) = \frac{1}{x}$, then the value of $f(1)$ is __.**

**Answer**: b. 1

**Solution**:
$f(x) = \frac{1}{x}$
$f(1) = \frac{1}{1} = 1$
```

End with:

- Complete formula cheat sheet

- Problem-solving strategies

- Common mistakes to avoid

- Exam tips

Keep TOC clean, solutions comprehensive.