

## PART A — Researched (Short Answers):

- **What new improvements were introduced in Gemini 3.0?**
  - Gemini 3.0 mein *state-of-the-art reasoning* aur gehri “thinking\_level” control ayi hai jo latency aur cost balance kar sakti hai
  - Multimodal understanding bohot better hui hai — images, video, text aur code ko ek sath samajhne aur reason karne ki salahiyat zyada hui hai
  - “Thought Signatures” ka feature hai jo model ke internal reasoning context ko maintain karta hai across multiple API calls.
  - Safety mein bhi improvements hain — prompt injection resistance zyada hai aur misuse ke khilaf protections behtar hain.
- **How does Gemini 3.0 improve coding & automation workflows?**
  - “Vibe coding” ka concept aya hai: aap natural language mein idea batao, Gemini 3 Pro usko plan aur code mein badal de sakta hai.
  - Gemini 3 Pro agentic workflows ko support karta hai: agents (AI bots) editor, browser aur terminal ko directly use kar sakte hain, aur complex softwares khud plan aur execute kar sakte hain.
  - Google ne **Antigravity** platform banaya hai — ek agent-first development IDE jahan AI agents independent tasks likh sakte hain, test kar sakte hain aur apni progress aur deliverables (artifacts) dikhate hain.
- **How does Gemini 3.0 improve multimodal understanding?**
  - Gemini 3 Pro ki visual reasoning bohot strong hai — wo images ya documents mein sirf OCR (**image ke andar likhe huye text ko read karna**) nahi karta balkay unka logical aur semantic meaning samajhta hai.
  - Spatial reasoning (means Objects **kahan** hain, Kis **angle** par hain, Kis **distance** par hain wagera) bhi behtar hui hai — model ab objects ka position, trajectory aur spatial relationship samajh sakta hai, jo robotics, XR aur autonomous systems mein useful hai.
  - Media resolution parameter diya gaya hai (low, medium, high) jisse developers ye control kar sakte hain ke image ya video processing kis quality mein ho aur cost/latency kaise manage ho.
- **Name any two developer tools introduced with Gemini 3.0.**

- **Google AI Studio** — Web-based IDE jahan aap Gemini 3 se “vibe coding” kar sakte hain.
- **Gemini CLI (command line tool)**: Iske zariye shell commands propose karne aur system operations ko automate karne ka workflow banaya gaya hai.

## ★ PART B — Practicle Task:

