

Great! Yeh raha poore "**AI Basics – Operator Level Understanding**" chapter ka nichod (summary).

Agar aap kisi interview mein ja rahe hain ya job start kar rahe hain, toh yeh **20 Golden Questions** aapka base strong kar denge. Inhe ratt lo (memorize) nahi, bas samajh lo.

SECTION A: WHAT YOU MUST BE CLEAR ABOUT (The "Why")

Interview ya kaam shuru karne se pehle in 3 concepts par aapka dimaag bilkul clear hona chahiye:

1. Why AI gives different answers to the same question?

- **Reason:** AI koi calculator nahi hai (jahan $2+2$ hamesha 4 hoga). Yeh **Probability (Sambhavna)** par chalta hai. Har baar generate karte waqt yeh words ke alag-alag patterns try karta hai taaki answer human-like lage. Isliye, same prompt par bhi output thoda badal sakta hai.

2. When AI should NOT be trusted blindly?

- **Critical Zones:** Jab baat **Facts (Tathy), Dates, Law, Medical Advice, ya Math** ki ho.
- **Reason:** AI ka focus "Sahi" hona nahi, balki "Confident Sound karna" hai. Wo galat baat bhi poore confidence se bolega (Hallucination).

3. Why Human Control (You) is mandatory?

- **Role:** AI ek "Intern" ki tarah hai jo fast hai par galti karta hai. Aap "Manager" ho.
- **Duty:** Context set karna, output verify karna, aur galti hone par prompt sudharna—yeh judgement sirf human ke paas hai.

SECTION B: TOP 20 QUESTIONS & ANSWERS (Job-Ready)

PART 1: THE BASICS (LLM Kya Hai?)

Q1. LLM kya hota hai? (Simple Definition)

Ans: LLM (Large Language Model) ek AI software hai jo bohot saare text data par train hua hai. Iska main kaam hai: Pichle words ko dekh kar **agla word predict** karna.

Q2. Google Search aur AI Chatbot mein main fark kya hai?

Ans:

- **Google:** Information *dhoondh* kar laata hai (Search).
- **AI (LLM):** Naya text *create* karta hai (Generate). Google ek library hai, AI ek writer hai.

Q3. Kya AI ke paas apna dimag ya feelings hoti hain?

Ans: Bilkul nahi. AI sirf maths aur statistics use karta hai. Usey khushi ya gussa mehsoos nahi hota, wo bas insaano ki nakal (mimic) karta hai.

Q4. "Training Data" ka kya role hai?

Ans: Jis data (books, internet) par AI ne padhai ki hai, wahi uska "Gyaan" hai. Agar training data mein koi information nahi thi, toh AI uske baare mein ya toh mana karega ya jhooth bolega (hallucinate).

PART 2: THE PROCESS (Kaam Kaise Karta Hai?)

Q5. Prompt Engineering kise kehte hain?

Ans: AI se best result nikaalne ke liye sawal (Prompt) ko sahi tareeke se design karne ki kala ko Prompt Engineering kehte hain. "Sahi sawal = Sahi jawab."

Q6. "Garbage In, Garbage Out" ka kya matlab hai?

Ans: Agar aapka Prompt (Input) unclear ya adhoora hai (Garbage), toh AI ka Output bhi bekaar hoga. Clear prompt dena operator ki zimmedari hai.

Q7. Tokenization kya hai?

Ans: AI words ko nahi samajhta, wo numbers ko samajhta hai. Text ko chote tukdon (Tokens) mein todne ke process ko Tokenization kehte hain. (Roughly 1 word = 0.75 token).

Q8. Iterative Process (Feedback Loop) kyu zaroori hai?

Ans: Pehli baar mein perfect answer milna mushkil hai. Operator ko output dekh kar prompt ko sudharna (refine) padta hai aur dobara generate karna padta hai. Isey Iteration kehte hain.

Q9. Temperature setting kya karti hai?

Ans: Yeh "Creativity" control karti hai.

- **High (0.8+):** Creative but risky (Stories ke liye).
- **Low (0.2):** Factual and precise (Official emails ke liye).

PART 3: MEMORY & CONTEXT (Yaadash)

Q10. Context Window kya hoti hai?

Ans: Yeh AI ki "Short-term Memory" hai. Ek conversation mein AI kitna text yaad rakh sakta

hai, us limit ko Context Window kehte hain.

Q11. Agar chat Context Window se lambi ho jaye toh kya hoga?

Ans: AI sabse purani baatein bhoolna shuru kar dega (Sliding Window). Wo sirf recent baatein yaad rakhega.

Q12. "Lost in the Middle" problem kya hai?

Ans: Jab bohot bada document AI ko diya jaata hai, toh wo aksar shuruat aur end yaad rakhta hai, par beech (middle) ki information bhool jaata hai ya ignore kar deta hai.

Q13. Kya "New Chat" click karna zaroori hai?

Ans: Haan. Jab naya task shuru karein, toh "New Chat" karein taaki purani baatein AI ko confuse na karein aur memory fresh rahe.

PART 4: RISKS & SAFETY (Bachav)

Q14. AI Hallucination kya hai?

Ans: Jab AI pure confidence ke saath galat fact ya jhoothi information deta hai. Example: Aisi book ka naam batana jo exist hi nahi karti.

Q15. Hallucination sabse zyada kahan hoti hai?

Ans: Factual cheezon mein—jaise Numbers, History Dates, Citations (Sources), aur unknown logo ki biography mein.

Q16. Operator Hallucination ko kaise rok sakta hai?

Ans:

1. Source maango ("Give me the link").
2. Facts ko Google par cross-check karo.
3. Prompt mein likho: "If you don't know, say 'I don't know'."

Q17. Kya main Company ka Confidential Data (Passwords/Strategy) AI mein daal sakta hoon?

Ans: BIG NO. Public AI tools (like free ChatGPT) aapka data training ke liye use kar sakte hain. Company data leak ho sakta hai.

PART 5: REAL WORLD APPLICATION (Job Scenarios)

Q18. Agar mujhe 100 page ki PDF summarize karni hai, toh kya karun?

Ans: Poori PDF ek saath mat daalo (Context limit error aayega). Usey chapters mein todo (Chunking), alag-alag summarize karo, aur fir un summaries ko combine karo.

Q19. Interviewer: "Aap AI output ko kaise verify karoge?"

Ans: "Main kabhi bhi raw output forward nahi karunga. Main logic check karunga, tone check karunga, aur agar koi fact/number hai toh usey original source se match karunga."

Q20. Ek AI Operator ki sabse badi quality kya honi chahiye?

Ans: Critical Thinking. AI bas ek tool hai, decision lene wala insaan (Operator) smart hona chahiye jo galti pakad sake.

Final Mastery Check

Agar aap in 20 sawalon ke jawab apne words mein de sakte ho, toh samajh lo **AI Basics** ka chapter aapka clear hai.

Next Step: Ab hum theory se hatkar **Practical Prompting Techniques** par jayenge. Would you like to start the next chapter: "**Zero-Shot vs Few-Shot Prompting**" (AI ko examples dekar kaise sikhayein)?