

# FLUXICON (DISCO) — COMPLETE EXAM PREP GUIDE

*(Process Mining the way YOUR course expects it)*

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## 1 What is Fluxicon / DISCO in ONE LINE (EXAM GOLD)

**Fluxicon Disco is a process mining tool that discovers the real process flow from event logs using case IDs, activities, and timestamps.**

If you write this sentence cleanly, you're already correct.

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## 2 What kind of data does DISCO need? (VERY IMPORTANT)

DISCO works on **EVENT LOGS**.

Each row = **ONE EVENT**

**Mandatory columns (your sir will test this):**

1. **Case ID**  
→ One complete process instance  
(e.g., one enrollment, one order, one procurement)
2. **Activity**  
→ The step that occurred  
(e.g., "Payment Approved")
3. **Timestamp**  
→ When the step happened

👉 Without timestamps → **NO process mining**

**Optional (but useful):**

- Resource (who did it)
- Cost

- Department
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### **3 What does DISCO PRODUCE? (What you “read” in exam)**

DISCO does **3 big things**:

**A) Process Map**

**B) Variants**

**C) Performance Metrics**

Let's go one by one.

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### **4 Process Map (The Flow Diagram)**

This is what your teacher **draws on the board**.

**What you see:**

- **Nodes** = Activities (steps)
- **Arrows** = Flow between steps
- **Thickness of arrows** = Frequency
- **Numbers on arrows** = Time / cases

**Interpretation:**

- Thick path = **Happy path**
- Thin side paths = **Exceptions / rework**
- Long arrows = **Waiting time**

**Exam-style interpretation sentence:**

“The thickest path represents the most frequently executed variant (happy process), while thinner paths indicate deviations and rework.”

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## 5 CASES (You MUST understand this)

**Case = ONE full journey**

Example:

- Case 157 → 6 events
- Case 335 → 18 events

(Straight from your notes.)

**What does that mean?**

Same process.

Same system.

But **completely different execution lengths**.

👉 This indicates:

- rework
- delays
- unclear rules
- approvals looping

**EXAM PHRASE:**

“Large variation in number of events per case indicates lack of standardization and hidden inefficiencies.”

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## 6 VARIANTS (THIS IS HEAVILY TESTED)

**Variant = a unique path through the process**

If 10 cases follow the same sequence → **1 variant**

If 608 cases have 608 different paths → 🚨 **BROKEN PROCESS**

**Terms you MUST use:**

- **Happy Path:** most frequent variant
- **Exceptional Variants:** rare paths
- **Single-case variants:** anomalies

## From your notes:

If every case is a different variant → something is seriously wrong.

## Exam sentence:

“High number of variants reflects uncontrolled process execution and creates unpredictability, higher cost, and delays.”

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## 7 Events per Case (Complexity Indicator)

DISCO shows:

- min events
- max events
- average events per case

## Interpretation:

- Few events → clean process
- Many events → rework, loops, approvals

## Example from your notes:

- Case 157 (6 events) → early termination
  - Case 335 (18 events) → full procurement + rework
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## 8 PERFORMANCE VIEW (TIME ANALYSIS)

DISCO can show:

### A) Throughput Time

→ Total time from first to last event

### B) Waiting Time

→ Time **between** activities (this is bottlenecks)

### C) Activity Duration

→ Time spent inside a step

### **Bottleneck logic (EXAM):**

The activity with the highest waiting time before or after it is the bottleneck.

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## **9 ACTIVE CASES (Your canteen analogy)**

Active cases = **work-in-progress**

Example:

- During break → many active cases (crowding)
- Near class → active cases drop

### **Interpretation:**

- High active cases = congestion
- Low completion rate = bottleneck

### **EXAM PHRASE:**

“High active cases indicate accumulation of work due to limited capacity or delayed activities.”

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## **10 DISCO vs DATA MINING (EXAM TRAP)**

Feature	Process Mining (DISCO)	Data Mining
Timestamps	REQUIRED	Optional
Process flow	YES	NO
Case concept	Mandatory	Not mandatory
Goal	Improve processes	Discover patterns

Your sir **will test this difference.**

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## 11 How DISCO supports BPR (VERY IMPORTANT LINK)

DISCO is **NOT** BPR.

DISCO is the **diagnostic microscope**.

### DISCO answers:

- Where is the delay?
- Where is rework?
- Where are rules being bypassed?
- Which variants should be eliminated?

### BPR then:

- removes steps
- changes rules
- automates data
- redesigns responsibility

### Exam sentence:

“Process mining provides objective evidence for BPR by revealing the actual execution of processes rather than assumed workflows.”

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## 12 Typical EXAM QUESTIONS + HOW TO ANSWER

### Q1: What is a variant?

#### Answer:

A variant is a unique sequence of activities followed by a case. Multiple variants indicate process inconsistency, while the most frequent variant represents the standard or happy path.

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### Q2: Why are timestamps critical in process mining?

#### Answer:

Timestamps allow reconstruction of event order, measurement of waiting time, identification of bottlenecks, and analysis of throughput, which is impossible in traditional data mining.

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**Q3: What does a high number of variants indicate?**

**Answer:**

It indicates lack of standardization, frequent exceptions, rework, unclear rules, and higher operational cost.

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**Q4: How does Fluxicon help in BPR?**

**Answer:**

Fluxicon identifies real process flows, bottlenecks, rework loops, and delays, enabling evidence-based redesign of processes rather than assumption-based improvement.

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## **13 ONE PERFECT 6–7 LINE EXAM ANSWER (MEMORIZE THIS)**

**Fluxicon Disco is a process mining tool that analyzes event logs containing case IDs, activities, and timestamps to discover the real execution of business processes. It visualizes process flows, identifies variants, bottlenecks, waiting times, and rework. The most frequent variant represents the happy path, while deviations indicate inefficiencies. By converting operational data into measurable process insights, Fluxicon provides objective input for Business Process Reengineering and Six Sigma initiatives.**