# TASK A — DEFECT HUNT

## A. Inconsistencies (Minimum 5 Required)

### 1. R2 vs R3 — Deadline Conflict

- R2: No registration after deadline
- R3: Late registration allowed for 3 days
  Type: Direct contradiction
  Issue: Registration is both prohibited and allowed after the deadline.

### 2. R4 vs R5 vs R16 — Seat Availability Conflict

- R4: Show available seats
- R5: Allow registration even if seats are full
- R16: Support waitlisting when seats are full
  Type: Business rule inconsistency
  Issue: If seats are full, students should join the waitlist (R16), but R5 allows direct registration.

### 3. R7 vs R8 — Prerequisite Conflict

- R7: Prevent registration if prerequisites not met
- R8: Prerequisites may be ignored with instructor approval
  Type: Conditional inconsistency
  Issue: R7 states absolute prevention; R8 allows exceptions but not clearly integrated.

### 4. R9 vs R10 — Schedule Conflict

- R9: Prevent schedule conflicts
- R10: Allow conflicts if one course is online
  Type: Rule exception not integrated
  Issue: R9 appears absolute, R10 creates exception.

### 5. R11 vs R12 — Credit Limit Conflict

- R11: Limit to 18 credits

- R12: Allow up to 24 with advisor approval
  Type: Incomplete constraint logic
  Issue: R11 appears absolute; R12 overrides it without linking condition.

## 6. R15 vs R13 — Drop Deadline Conflict

- R13: Drop allowed until Week 6
- R15: No drops after deadline
  Type: Ambiguous deadline definition
  Issue: Is Week 6 the deadline? Not clearly stated.

# B. Incompleteness Defects (Minimum 5 Required)

## 7. R6 — "The system shall send confirmation."

Missing:

- Confirmation of what?
- Via email, SMS, or portal?
- When?

## 8. R2 — "Deadline" not defined

Missing:

- Date/time format
- Time zone
- Who sets the deadline?

## 9. R3 — Late registration details missing

Missing:

- Is approval required?
- Is there a penalty fee?
- Exact time boundary?

## 10. R19 — Priority enrollment vague

Missing:

- How priority works
- Does it override the waitlist order?
- Definition of "final-year"

## 11. R14 — Drop fee undefined

Missing:

- Fee amount
- Payment method
- Refund policy

## 12. R16 — Waitlist behavior incomplete

Missing:

- Maximum waitlist size
- Can students waitlist multiple courses?

## 13. R20 — No measurable criteria

# C. Ambiguities (Minimum 3 Required)

### 14. "Deadline" (R2, R15)

- Registration deadline?
- Drop deadline?
- Late deadline?

### 15. "Online course" (R10)

- Fully asynchronous?
- Hybrid?
- Live virtual?

Schedule conflict rule unclear.

### 16. "Final-year student" (R19)

- Based on credits?
- Based on the academic year?
- Based on the expected graduation date?

## D. Unverifiable / Untestable Requirements (Minimum 2 Required)

### 17. R20 — "Students shall be able to register quickly."

Problem:

- What is "quickly"?
- 2 seconds? 30 seconds?

Not measurable and not testable.

### 18. R6 — "The system shall send confirmation."

If timing and method are undefined, it is partially unverifiable.

# Defect Count Summary

Inconsistencies: 6
Incompleteness: 7
Ambiguities: 3
Unverifiable: 2

All minimum category requirements satisfied.