**1**

**Minimal Functional Dependencies in Canonical Form**

**1. Employee:**

**Functional Dependencies:**

1. EID → EName
2. EID → DOB
3. EID → DOJ
4. EID → Salary
5. EID → Category
6. EID → Qualification
7. EID → Start\_time
8. EID → End\_time
9. EID → Gender

**Normal Form: BCNF**

**2. Patient:**

**Functional Dependencies:**

1. PID → P\_Name
2. PID →Gender
3. PID →DOB
4. PID →Admit\_from
5. PID → Relation
6. PID → In\_date
7. PID →In\_time
8. PID → Out\_date
9. PID → Out\_time
10. PID → ward\_no

**Normal Form: BCNF**

**3. Doctor:**

**Functional Dependencies:**

**(a)** DID → Type

**Normal Form: BCNF**

**4. Doctor-Speciality:**

**Functional Dependencies:**

► No FDs

Key : DID, Speciality\_name

**Normal Form: BCNF**

|  |  |
| --- | --- |
| **Minimal Functional Dependencies in Canonical Form** | **2** |

**5. Visitor:**

**Functional Dependencies:**

1. VisitorID → Visitor\_name
2. VisitorID → stay\_from
3. VisitorID → stay\_to

**Normal Form: BCNF**

**6. meet:**

**Functional Dependencies:**

**► No FDs**

Key : PID, VisitorID

**Normal Form: BCNF**

**7. Appointment:**

**Functional Dependencies:**

1. Appointment\_No → App\_name
2. Appointment\_No → Appointment\_date
3. Appointment\_No → Appointment\_time
4. Appointment\_No → fees

**Normal Form: BCNF**

**8. Appointment\_with:**

**Functional Dependencies:**

**► No FDs**

Key : DID, Appointment\_No

**Normal Form: BCNF**

**9. Treated\_By:**

**Functional Dependencies:**

**► No FDs**

Key : DID, PID

**Normal Form: BCNF**

**10. Available\_Wards:**

**Functional Dependencies:**

1. Ward\_no → Ward\_type
2. Ward\_no → Ward\_capacity
3. Ward\_no → Ward\_ratePerday

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| --- | --- |
| **Minimal Functional Dependencies in Canonical Form** | **3** |

**Normal Form: BCNF**

**11. Available\_Operation:**

**Functional Dependencies:**

1. Operation\_id → Operation\_name
2. Operation\_id → Operation\_rate

**Normal Form: BCNF**

**12. Available\_Medicine:**

**Functional Dependencies:**

1. Medicine\_id → Medicine\_name
2. Medicine\_id →Medicine\_rate

**Normal Form: BCNF**

**13. Available\_Test:**

**Functional Dependencies:**

1. Test\_id → Test\_name
2. Test\_id → Test\_rate

**Normal Form: BCNF**

**14. Bill:**

**Functional Dependencies:**

1. Bill\_no → Bill\_date
2. Bill\_no → PID
3. Bill\_no → Total\_amount

**Normal Form: BCNF**

**15. Ward\_list:**

**Functional Dependencies:**

1. Ward\_list\_id →ward\_no
2. Ward\_list\_id → PID
3. Ward\_list\_id → Stay\_charges
4. Ward\_list\_id → Bill\_no

**Normal Form: BCNF**

**16. Test\_list:**

**Functional Dependencies:**

**(a)** Test\_list\_id → Test\_date

|  |  |
| --- | --- |
| **Minimal Functional Dependencies in Canonical Form** | **4** |

1. Test\_list\_id → Test\_bill\_date
2. Test\_list\_id → Test\_amount
3. Test\_list\_id → DID
4. Test\_list\_id → PID
5. Test\_list\_id → Bill\_no

**Normal Form: BCNF**

**17. Have:**

**Functional Dependencies:**

**► No FDs**

Key : Test\_list\_id, Test\_id

**Normal Form: BCNF**

**18. Medicine\_list:**

**Functional Dependencies:**

1. Medicine\_list\_id → Prescription\_date
2. Medicine\_list\_id → Medicine\_bill\_date
3. Medicine\_list\_id → Medicine\_quantity
4. Medicine\_list\_id → Medicine\_amount
5. Medicine\_list\_id → DID
6. Medicine\_list\_id → PID
7. Medicine\_list\_id → Bill\_no

**Normal Form: BCNF**

**19. has:**

**Functional Dependencies:**

**► No FDs**

Key : Medicine\_list\_id, Medicine\_id

**Normal Form: BCNF**

**20. Operation\_list:**

**Functional Dependencies:**

1. Operation\_list\_id → Operation\_id
2. Operation\_list\_id → Operation\_date
3. Operation\_list\_id → Operation\_bill\_date
4. Operation\_list\_id → Operation\_amount
5. Operation\_list\_id → PID
6. Operation\_list\_id → Bill\_no

|  |  |
| --- | --- |
| **Minimal Functional Dependencies in Canonical Form** | **5** |

**Normal Form: BCNF**

**21. Performs:**

**Functional Dependencies:**

**► No FDs**

Key : Operation\_id, DID

**Normal Form: BCNF**

**22. Reports:**

**Functional Dependencies:**

1. Test\_list\_id → Report\_date
2. Test\_list\_id → Remark

**Normal Form: BCNF**