SET-A

● Consider the hospital system Form given below:

Hospital Name: *XYZ Hospital*   **Doctor ID:** *501*
Appointment Number: *101*   **Doctor Name:** *Dr. Emily Adams*
Appointment Date: *23/05/23*   **Doctor Phone number:** *098765322222*
Patient ID: *222*
Patient Name: *John Doe*   **Sickness type:** *Mouth*

Test No	Test Description	Cost	Employee ID	Emplyee name
800	X-Ray	490	2222	Raihan
801	Blood Test	2000	3333	Alif
805	ECG	1000	1234	Sabuj

Total (Tk.) 3490 Taka

List the names of data items from the given form, and use these as the baseline attributes of a large single table.

1. What type of dependency is shown by "Doctor Phone Number depends on Doctor ID"?
   a) Partial
   b) Transitive
   c) Functional
   d) None

2. Which normal form removes transitive dependencies?
   a) 1NF
   b) 2NF
   c) 3NF
   d) BCNF

3. What kind of anomaly arises when you cannot add a new test unless it's assigned to an appointment?
   a) Deletion
   b) Insertion
   c) Update
   d) Redundancy

4. Which is an example of a partial dependency?
   a) Appointment Number → Patient Name
   b) Doctor ID → Doctor Name
   c) Test No → Test Description
   d) Employee ID → Employee Name

5. What is the best candidate for a composite key in this form?
   a) Patient ID, Test No
   b) Appointment Number, Test No
   c) Doctor ID, Test No
   d) Hospital Name, Doctor Name

6. Write true or false for the following statements:

   A. 3NF allows transitive dependencies.
   B. Doctor ID uniquely identifies Doctor Name.
   C. The form violates 1NF due to multiple test entries in one row.
   D. Partial dependency is acceptable in 2NF.
   E. Appointment Number can be a good primary key for identifying a test.

7. List steps of normalization with rules