1. The attributes in this relation would be (A)SID, and (C)CRN as keys, with (B)ClassName being determined by the CRN.

R is in 1NF because it is a relation, but it has a partial dependency where C -> B, but A doesn’t determine either. A way to split this would be R1(A,C) R2(C,B).

1. The attributes in this relation would be (A) CustomerID, and (B)ServiceType as keys, and (C)EmployeeID with (B)ServiceType being determined by (C)EmployeeID.

R is not in BCNF because a determinate (C)EmployeeID, isn’t a key. To resolve this issue, you could split the relation up like this: R1(A,C), R2(C,B).

1. This relation is fine. (A)SID, and (B)CRN are the keys and (C) isn’t determined by either so there isn’t any transitive, or partial dependency. It meets everything needed to DKNF.
2. The attributes of this relation would be (A)H-SSN, and (B)W-SSN as keys. Since A+B -> C, and then C -> D, there is a transitive dependency.

Since there is a transitive dependency, this relation is not in the 3NF, but there isn’t a partial dependency so this relation is in 2NF. To make this work, the relation would be split like this: R1(A,B,C), R2(C,D).

1. The attributes of this relation are (A)VIPID, (B)favoriteBookAuthors, and (C)favoriteSports, each being a key with A determining both B, and C.

I believe this relation is in the BCNF because there is a Multi-value dependency, but there are no transitive, or partial dependencies. A way to split this up would be: R1(A,B), R2(A,C).