1. Equivalence partition / Boundary value:
2. Given the following specification, which of the following values for age are in the SAME equivalence partition?

If you are less than 18, you are too young to be insured.  
Between 18 and 30 inclusive, you will receive a 20% discount.  
Anyone over 30 is not eligible for a discount.

1. A program validates a numeric field as follows: values less than 10 are rejected, values between 10 and 21 are accepted, values greater than or equal to 22 are rejected.
2. The Switch is switched off once the temperature falls below 18 and then it is turned on when the temperature is more than 21.
3. In an Examination, a candidate has to score a minimum of 24 marks in order to clear the exam. The maximum that he can score is 40 marks
4. One of the fields on a form contains a text box which accepts numeric values in the range of 18 to 25
5. Decision table
6. When a burglar alarm sounds, if it is in one of students’ houses where alarm sounds every week, ignore it. Otherwise have a look outside and if the house looks not broken into and there is nobody moving inside it, ignore the alarm. Otherwise call police
7. A marketing company wishes to construct a decision table to decide how to treat clients according to three characteristics: Gender, City Dweller, and age group: A (under 30), B (between 30 and 60), C (over 60). The company has four products (W, X, Y and Z) to test market. Product W will appeal to female city dwellers. Product X will appeal to young females. Product Y will appeal to Male middle aged shoppers who do not live in cities. Product Z will appeal to all but older females
8. State Transition testing
9. Consider a login event. There are two possibilities. One login event with valid username/password combination and other with invalid username/password combination. Both will result in different transitions. The login event with valid username/password combination will have a transition to the home page with a welcome message. Another will have a transition to an Error page / Forget password page.
10. A tape player has three operations: play, fast forward and fast play. Play and fast forward are activated using the play and fast forward button respectively. These operations can be cancelled using the stop button. When in play mode, the fast forward can be used to fast play. When in fast play mode, the fast forward button can be pressed again to enter fast forward or the stop button can be used to return to play. When in fast forward the play button can be pressed to enter play mode directly
11. A two-speed electric toothbrush is operated by pressing its one button. The first press of the button turns the toothbrush from off to speed one, the second press of the button turns it to speed two. When the button is pressed for a third time the electric toothbrush is turned off
12. Provide information including departure and destination cities, dates, and times. A reservation agent uses that information to make a reservation. At that point, the Reservation is in the Made state. The system creates and starts a timer. If this timer expires before the reservation is paid for, the reservation is cancelled by the system. When money is paid, through initiation of the PayMoney action, the system goes into the “Paid” state. Events may have parameters associated with them. For example, Pay Money may indicate Cash, Check, Debit Card, or Credit Card. When the ticket is printed, the system goes into the Ticketed State. Upon boarding the plane, the customer gives the boarding pass along with the ticket, which signals that the ticket has been Used. If the Reservation is not paid on time, the PayTimer expires and the Reservation is cancelled for non-payment. A reservation may become cancelled if the customer wishes to do so. This can happen prior to payment or after payment. If after payment, a refund needs to be generated. If the customer had the tickets with him, a refund cannot be given unless the printed ticket itself is returned to the agent.
13. Empty state is initialized at the beginning. When user adds item to the cart, it will be moved to existed cart state (it only changes the quantity in the cart). The products in the cart can be removed, when removing a product, if there are still products in the cart, the state will not be changed. But if there is no product in the cart, the state will be changed to empty. When the customers want to be check out, the state will be changed to Summary and Cost state. If list of products are valid (the quantity and sum of money are ok), it will be changed to Payment state. If checking is invalid( ex: if customers don’t have enough money), it will be changed to Summary and Cost state, the customers can remove some products out of the cart and change to Payment state.