1.Equivalence classes task:

Equivalence classes	1	2	3
Range	0 - 9.99$	10$ - 5000$	Above 5000$
Valid/Invalid	Invalid	Valid	Invalid
Test number	7	3250	5001

2.Pairwise testing task:
Pairwise testing technique cover pairs. In this case in “Case 1” we are covering - > (Male, <25) & (Male, Yes) & (< 25, Yes); This set of test cases ensures that every pair of input parameters (Gender and Age, Gender and Presence Of Children, Age and Presence Of Children) is covered at least once.

Case	Gender (Male / Female)	Age (<25 / 25 - 60 / >60)	Presence/absence of children
Case 1	Male	<25	Yes
Case 2	Male	25 - 60	No
Case 3	Male	>60	Yes
Case 4	Female	<25	No
Case 5	Female	25 - 60	Yes
Case 6	Female	>60	No

---

3)Testing state transition:

Create a diagram / table for the state transition of the coffee machine. There are three possible states: - 1) waiting

- 2) preparing a drink
- 3) Requirement of replenishment of ingredients

There is only one Start / Stop button and a tank for replenishing water / coffee.

States		Start/Stop Button	Not-Enough water / coffee	Enough water / coffee
State 1	Waiting	State 2	State 3	State 1
State 2	Preparing a drink	State 1	State 3	State 1
State 3	Requirement of replenishing	State 3	State 3	State 1*

* - > after replenishing water / coffee.

4)Testing coverage

A daily radiation recorder for plants produces a sunshine score based on a combination of the number of hours a plant is exposed to the sun(below 3 hours, 3 to 6 hours or above 6 hours) and the average intensity of the sunshine(very low, low, medium, high).
Given the following test cases:

	Hours	Intensity	Score
T1	1.5	v. low	10
T2	7.0	medium	60
T3	0.5	V. low	10
T4	4.0	low	?
T5	5.5	high	?

What is the minimum number of additional test cases that are needed to ensure full coverage of ALL VALID INPUT equivalence partitions?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B.

Traceability Matrix table:

Requirement ID	Requirement Description	TC1	TC2	TC3	TC4	TC5
R1	Should calculate Radiation for v.low temp	X		X		
R2	Should calculate Radiation for low temp				X	
R3	Should calculate Radiation for medium temp		X			
R4	Should calculate Radiation for high temp					X
R5	Should calculate Radiation when exposed for less than 3 hours	X		X		
R6	Should calculate Radiation when exposed for 3 to 6 hours				X	X
R7	Should calculate Radiation when exposed for more than 6 hours		X			