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FA210-BSE-027

SECTION A

Lab Task Exercise No. 3

Exercise 1:

Select equivalence partitioning based inputs and make test cases after classifying them in valid and invalid compartments.

Invalid (less more 10 digits)	Valid (10 digits)	Invalid (non-numeric)
111222333	1112223333	111-222-333J
111222333344	9998887777	111.222.333Z
555	5551234567	-iyj54
0	0123456789	86 54
-0	0987654321	+58

Scenario 2:

Select BVA technique and make test cases after classifying them to valid and invalid categories

Classification	Test Cases (mobile number)
Valid	1111111111, 9999999999, 5555555555
Invalid (below the minimum value)	111111111
Invalid (above the maximum value)	10000000000
Invalid (non-numeric characters)	1234abcd5678
Invalid (minimum value and non-numeric characters)	+1111111a1

Scenario 3:

An integer field shall contain values between and including 1 to 15. By applying EP which of the following is a valid collection of equivalence classes for the given scenario.

1. Less than 1, 1 through 15, more than 15
2. Negative numbers, 1 through 15, above 15
3. Less than 1, 1 through 14, more than 15
4. Less than 0, 1 through 14, 15 and more 3

1. Less than 1, 1 through 15, more than 15

- Values less than 1 (invalid)
- Values between 1 and 15 (valid)
- Values greater than 15 (invalid)

2. Negative numbers, 1 through 15, above 15

- Less than 1 (invalid)
- Between 1 and 15 (valid)
- Greater than 15 (invalid)

3. Less than 1, 1 through 14, more than 15

- Less than 1 (invalid)
- Between 1 and 14 (valid)
- Greater than 15 (invalid)

4. Less than 0, 1 through 14, 15 and more 3

- Less than 1 (invalid)
- Between 1 and 14,15 (valid)
- 15 and more 3 (valid)

Scenario 4:

In a system designed to work out the tax to be paid:

An employee has £4000 of salary tax free. The next £1500 is taxed at 10% The next £28000 is taxed at 22% Any further amount is taxed at 40% Which of these groups of numbers would fall into the same equivalence class?

► £4800; £14000; £28000

► £5200; £5500; £28000

► £28001; £32000; £35000

£5800; £28000; £32000

- **First Group:** The number £4800 falls into the 22% tax bracket and the equivalence class of this number is 2.

- **Second Group:** The numbers £5200 and £5500 fall into the 10% tax bracket and the equivalence class of these numbers is 1.
- **Third Group:** The numbers £28001, £32000 and £35000 fall into the 40% tax bracket and the equivalence class of this numbers is 3.
- **Fourth Group:** The numbers £5800, £28000, and £32000 fall into the 10% and 22% tax bracket and the equivalence class of this numbers is 1 and 2.

Scenario 5

Purchase discount is 0% for up to 500 US\$, 5% is added for each additional 500 US\$ up to 2000 US\$, and 25% is applied for above 2000 US\$. Which test inputs in US\$ would be selected for valid equivalence partitions?

- (a) 250, 700, 1400, 1800, 4000
- (b) 250, 1400, 3000
- (c) -100, 250, 650, 1300, 1700, 2900
- (d) 200, 720, 1600, 1800, 2100

Answer: (a) 250, 700, 1400, 1800, 4000