# Non-functional Requirements Questionnaire

35
total points:40

7
Correct
questions:8

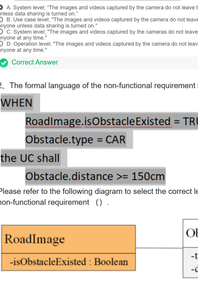
**Detailed**

1、The formal language of the non-functional requirement is:

WHEN
Car.dataShareable = false
the System shall
Camera.storage = PRIVATE

Please refer to the following diagram to select the correct level and natural language for the non-functional requirement （）.

5 Points



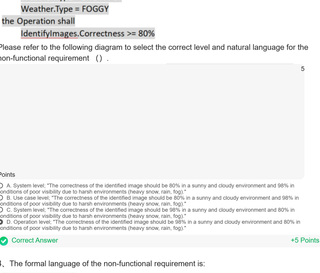

A. System level; "The images and videos captured by the camera do not leave the vehicle itself and are not transmitted to anyone unless data sharing is turned on."
B. Use case level; "The images and videos captured by the camera do not leave the vehicle itself and are not transmitted to anyone unless data sharing is turned on."
C. System level;"The images and videos captured by the cameras do not leave the vehicle itself and are not transmitted to anyone at any time."
D. Operation level; "The images and videos captured by the camera do not leave the vehicle itself and are not transmitted to anyone at any time."

Correct Answer +5 Points

2、The formal language of the non-functional requirement is:

WHEN
RoadImage.isObstacleExisted = TRUE and
Obstacle.type = CAR
the UC shall
Obstacle.distance >= 150cm

Please refer to the following diagram to select the correct level and natural language for the non-functional requirement （）.




5 Points

A. System level; " Whenever a vehicle is detected ahead, keep a distance of at least 150cm from the vehicle in front;"
B. Use case level; " Whenever a vehicle is detected ahead, keep a distance of at least 150cm from the vehicle in front."
C. Operation level; " Whenever an obstacle is detected in front, keep a distance of at least 150cm from the obstacle in front."
D. Use case level; " Whenever an obstacle is detected in front, keep a distance of at least 150cm from the obstacle in front."

Wrong Answer +0 Points

Correct Answer:
B. Use case level; " Whenever a vehicle is detected ahead, keep a distance of at least 150cm from the vehicle in front."

3、The formal language of the non-functional requirement is:

WHILE
Weather.Type = SUNNY or
Weather.Type = CLOUDY
the Operation shall
IdentifyImages.Correctness >= 98%
WHILE
Weather.Type = RAINY or
Weather.Type = SNOWY or
Weather.Type = FOGGY
the Operation shall
IdentifyImages.Correctness >= 80%

Please refer to the following diagram to select the correct level and natural language for the non-functional requirement （）.

5

Points

A. System level; "The correctness of the identified image should be 80% in a sunny and cloudy environment and 98% in conditions of poor visibility due to harsh environments (heavy snow, rain, fog)."
B. Use case level; "The correctness of the identified image should be 80% in a sunny and cloudy environment and 98% in conditions of poor visibility due to harsh environments (heavy snow, rain, fog)."
C. System level; "The correctness of the identified image should be 98% in a sunny and cloudy environment and 80% in conditions of poor visibility due to harsh environments (heavy snow, rain, fog)."
D. Operation level; "The correctness of the identified image should be 98% in a sunny and cloudy environment and 80% in conditions of poor visibility due to harsh environments (heavy snow, rain, fog)."

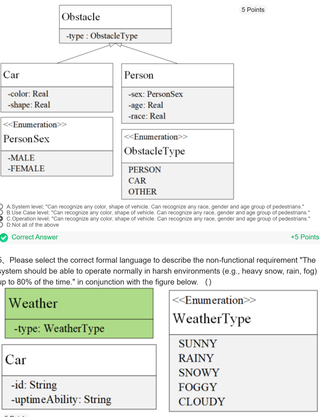
Correct Answer +5 Points

4、The formal language of the non-functional requirement is:

The Operation shall
isIdentifyObstacle = true and
Obstacle.type = any and
Person.sex = any and
Person.age = any and
Person.race = any and
Car.color = any and
Car.shape = any

Please refer to the following diagram to select the correct level and natural language for the non-functional requirement （）.

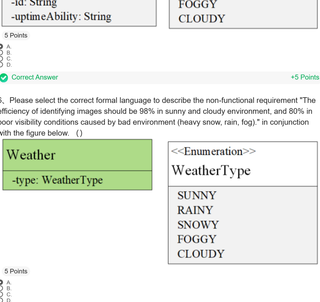
5 Points




A.System level; "Can recognize any color, shape of vehicle. Can recognize any race, gender and age group of pedestrians."
B.Use Case level; "Can recognize any color, shape of vehicle. Can recognize any race, gender and age group of pedestrians."
C.Operation level; "Can recognize any color, shape of vehicle. Can recognize any race, gender and age group of pedestrians."
D.Not all of the above

Correct Answer +5 Points

5、Please select the correct formal language to describe the non-functional requirement "The system should be able to operate normally in harsh environments (e.g., heavy snow, rain, fog) up to 80% of the time." in conjunction with the figure below. （）

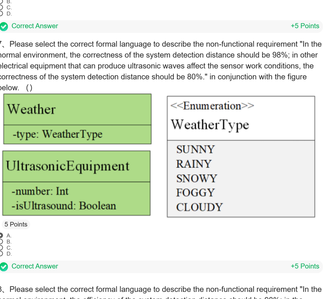



5 Points

A.
B.
C.
D.

Correct Answer +5 Points

6、Please select the correct formal language to describe the non-functional requirement "The efficiency of identifying images should be 98% in sunny and cloudy environment, and 80% in poor visibility conditions caused by bad environment (heavy snow, rain, fog)." in conjunction with the figure below. （）

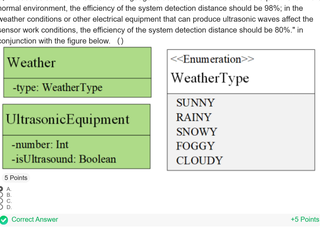



5 Points

A.
B.
C.
D.

Correct Answer +5 Points

7、Please select the correct formal language to describe the non-functional requirement "In the normal environment, the correctness of the system detection distance should be 98%; in other electrical equipment that can produce ultrasonic waves affect the sensor work conditions, the correctness of the system detection distance should be 80%." in conjunction with the figure below. （）

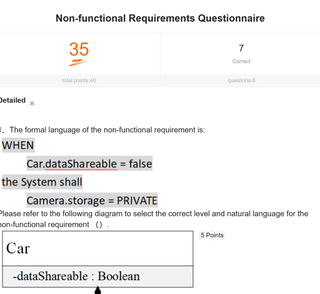



5 Points

A.
B.
C.
D.

Correct Answer +5 Points

8、Please select the correct formal language to describe the non-functional requirement "In the normal environment, the efficiency of the system detection distance should be 98%; in the weather conditions or other electrical equipment that can produce ultrasonic waves affect the sensor work conditions, the efficiency of the system detection distance should be 80%." in conjunction with the figure below. （）




5 Points

A.
B.
C.
D.

Correct Answer +5 Points