# Question 1

Although a research is a widely used term and may have many different meanings, scientists and researchers needed to find common conditions, which need to be met in order to process and evaluate any outcomes. First of these conditions is setting a clear goal or problem. Other very important conditions are (based on Buckley, at. al. 1975):

* Use of proper and suitable methods
* Well prepared data gathering methods and adequate evidence
* Reasonable judgement, objective conclusions
* Ability to prove and demonstrate the outcome by researchers
* After the research is finished, the data should produce new laws or principles, which could be used in a given area in the future.

# Question 2

It may be unambiguous to define, what Qualitative research is, however if we want to establish few key characteristics, main focus should be on everyday situations in life and banal reflection of the normal life of individuals and groups. Very important feature of qualitative data is that they provide complexity and richness of a observed subject and this data should be informative, deep and obtained in simulated “normal life” situations. Qualitative research is often judged as the best discovery, new area exploring and developing new hypotheses. Another key element of this research is it’s volume and flexibility. Thanks to the wider area of observation and data gathering of a subject, we may assume what was the context of an observed event or so.

# Question 3

Quantitative research assumes that human behaviour may be explained by “social facts”. They also focus on the future application of the outcome rather than just justifying and verifying theories. In process of this research, questions “how often” and “how much” are usually observed and tend to be important in order to provide flexibility. We can’t forget to mention ability to use comparative and statistical analysis. Observer is independent of the subject, which is observed. Reliability and validity may be determined more objectively. Quantitative research is strong in measuring descriptive aspects of built environment. In order to achieve proof of validity, quantitative research should be replicable by anyone.

# Question 4

We can see a lot of differences between quantitative and qualitative research methods. Policy makers tend to favour quantitative methods rather than qualitative ones. One of the reasons may be the fact, that quantitative research is based on a larger sample of inquiries. Qualitative research is subjective and uses description. In order to understand the outcome from qualitative research, interpretation of the idea is required. Quantitative methods are objective and the outcome is measured rather than described. If the conclusion is a valid hypothesis, any other research should end up with the same result.

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| Comparison dimension | Qualitative research strategy | Quantitative research strategy |
| Objective/Purpose | Hypothesis generation | Hypothesis testing |
| Type of research | Subjective | Objective |
| Methods of obtaining data | action research, case studies, focus groups, in-depth surveys, role playing | case studies, field experiments, laboratory experiments, large-scale studies |
| Sample size | Individual or smaller groups | Large-scale data |
| Data form | Surveys, notes of observation | Statistical, numerical data |
| Typical data analysis approach | Descriptive | Measuring |
| Ability to replicate with same result | Hard to obtain same result due to complexity of research | Result should be replicable |
| Time consumption in research | More time consuming for one subject | Less time consuming for one subject |

References:

Amaratunga, D., Baldry, D., Sarshar, M. & Newton, R. 2002. Quantitative and qualitative research in the built environment: application of ‘mixed’ research approach. Work Study, vol 51, Iss 1, pp. 17-31.