



### Försättsblad Prov Original

Kurskod	Provkod	Tentamensdatum
I G O 1 1 A	T 1 0 1	2 0 1 8 - 0 8 - 2 8
Kursnamn	Industriell organisation och ekonomi AV, Vetenskaplig metod	
Provnamn	Skriftlig tentamen	
Ort	Sundsvall	
Termin	H18	
Ämne	Datateknik	

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## Re-Examination

### Scientific Method (IG011A, IG012A)

August 28, 2018

5 hours

Carefully read the questions before you start answering them.

Write your answers on separate sheets. Start every question on a new sheet.

Make sure that you writes clearly. If we cannot read the answers, you will not get any points for your answer.

***You can give your answers in Swedish or English***

**No books or other aids are allowed.**

The examination cover in total 40 points of which 12 points cover quantitative methods, 12 points qualitative methods, 8 points mixed methods and 8 points science philosophical world views and ethical issues.

To pass the exam you need at least 20 points, whereof at least 6 points from the quantitative part, 6 p from the qualitative part, 4 p from mixed methods and 4 p from the science philosophical, ethical part.

Requirements for grades according to below:

<b>E</b>	<b>20 points</b>
<b>D</b>	<b>24 points</b>
<b>C</b>	<b>28 points</b>
<b>B</b>	<b>32 points</b>
<b>A</b>	<b>36 Points</b>

**Good luck!!**

## Qualitative methods (12 p)

### **Question 1 (2p)**

Interviews are one way to gather qualitative data. Interviews could be designed in different ways. Explain the different types of interviews and what you have to consider when you plan and conduct an interview.

### **Question 2 (3p)**

Describe the main characteristics for qualitative research and when it could be a feasible approach.

### **Question 3 (2p)**

What differentiates a case study from an ethnographic study?

### **Question 4 (2p)**

What does the concept of operationalisation mean, and how is it used in qualitative research?

### **Question 5 (3p)**

Give an example of a study where you choose to use a qualitative study. Motivate why the qualitative approach is the best choice for your study.

## Quantitative methods (12 p)

### **Question 6 (2 p)**

What properties must data possess if it should be possible to employ quantitative research methods?

### **Question 7 (2 p)**

What signifies a quantitative research approach and when shall a quantitative approach be employed?

### **Question 8 (2 p)**

For a survey approach, explain what are population, samples and instrument.

### **Question 9 (2 p)**

Explain the two terms "deduction" and "induction"

### **Question 10 (2 p)**

The validity of an experiment can be exposed to several threats. Mention two kinds of threats and give examples of such threats.

**Question 11 (2 p)**

Mention two aspects that must be considered when selecting the participants in an experiment.

Mixed methods (8 p)

**Question 12 (3 p)**

Triangulation is an approach to strengthen the findings in a study. Explain what triangulation is and how to do it.

**Question 13 (2 p)**

Which are the main differences between an explanatory and exploratory sequential mixed methods approach? Give at least two examples.

**Question 14 (3 p)**

Give an example of a study where a mixed methods approach is suitable. Motivate your answer.

Science philosophical worldview and ethical considerations in research (8 p)

**Question 15 (2 p)**

In all research, you have to take some kind of ethical considerations. Four of the ethical principles are:

- a) Minimising the risk of harm
- b) Obtaining informed consent
- c) Protecting anonymity and confidentiality
- d) Providing the right to withdraw

Explain the meaning of each of these four principles.

**Question 16 (3 p)**

Determinism and constructivism are two different ways to look upon e.g. technology. Describe the characteristics for these two different views.

**Question 17 (3 p)**

Almost all research builds on existing research. What should you think about when using other researchers' results?