

B1CSIS1-1 Context, science and innovation (Semester 1)

Datum : 28 oktober 2016

Toetsafname : 9.00 – 9:45 uur

Deze toetsset kunt u na afloop meenemen

Het gebruik van een standaardrekenmachine (type casio fx-82MS) is toegestaan.

ALGEMENE AANWIJZINGEN EN INSTRUCTIE:

- Dit tentamen bestaat uit **20** meerkeuzevragen.
 - De vragen 1 t/m 16 zijn Engelstalig
 - De vragen 17 t/m 20 zijn Nederlandstalig
- De beschikbare tijd voor de gehele toets is **45 minuten**.
- Controleer of uw toetsset compleet is.
- Vermeld op het antwoordformulier duidelijk uw naam en studentnummer.
- Bij iedere vraag is slechts één alternatief het juiste of het beste.
- U geeft het naar uw mening juiste antwoord aan door het CIJFER voor het betreffende alternatief te omcirkelen in uw toetsset.
- Wanneer u alle vragen heeft beantwoord dient u uw antwoorden zorgvuldig over te brengen op het antwoordformulier. Gebruik daarvoor een zwarte of blauwe pen. Corrigeer fouten door een kruisje door het foutieve antwoord te zetten.
- Als u een vraag wilt open laten vult u het hokje boven het vraagteken “?” in.
- De op het antwoordformulier ingevulde antwoorden worden beschouwd als uw definitieve antwoorden, ongeacht uw omcirkelingen in uw toetsboekje.
- Meer dan één ingevuld antwoord per vraag wordt als blanco geïnterpreteerd.
- Schrijf niet buiten de invulvelden van het antwoordformulier.
- Het gebruik van andere audiovisuele en technische hulpmiddelen is niet toegestaan. Mocht u dergelijke apparatuur toch gebruiken, dan zal dit als fraude worden aangemerkt.
- Op uw tafel mogen uw studenten- en registratiekaart en los schrijfmateriaal liggen. Etui's moeten van tafel.
- Als u uw antwoordformulier vlegt, vouwt, beschadigt of de invulinstructies negeert kan de toets niet correct verwerkt worden. Vraag de surveillant in dergelijke gevallen om een nieuw blanco antwoordformulier.

4
2

De vragen worden als volgt gescoord:

antwoorden:	Goed	Fout	open	
2 keuze-vraag	1	-1	0	Punten
3 keuze-vraag	1	- ½	0	Punten
4 keuze-vraag	1	- 1/3	0	Punten
5 keuze-vraag	1	- ¼	0	Punten

2

Lever na afloop het antwoordformulier in. Indien u commentaar heeft op de vragen, verwijzen we u naar de hyperlink die is opgenomen bij uw toetsindeling in uw webdossier t.b.v. het digitaal studentcommentaarformulier voor deze toets.

LET OP: ZET EERST UW NAAM EN STUDENTNUMMER OP HET ANTWOORDFORMULIER!

VEEL SUCCES!

Question 5

A typical characteristic of scientific thinking is:

1. believe.
2. intuition.
3. skepticism.

Question 6

If a theory is correct, then the same findings should emerge if a study is repeated.

This is known as...

1. propagation.
2. replication.
3. reproduction.

Question 7

Deduction is one of the fundamental steps in scientific thinking. Deductive reasoning involves....

1. reasoning from the general to the particular.
2. reasoning from the particular to the general.

Question 8

A correlation exists when....

1. change in one variable is associated with change in another variable.
2. the independent variable causes the dependent variable.
3. the independent variable precedes the dependent variable in time.
4. the relationship between variables cannot be generalized beyond the empirical data.

Question 9

Which statistical measure is most strongly influenced by outliers in the data?

1. Mean
2. Median
3. Mode

1 7 8 9 10 15

mean 8,333

1 15, 20 21 30

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Figure 2 (below) belongs to questions 10 to 14

Of 250 patients suffering from Pheochromocytoma the blood pressure is measured. The distribution of the systolic blood pressure is given in Figure 2.

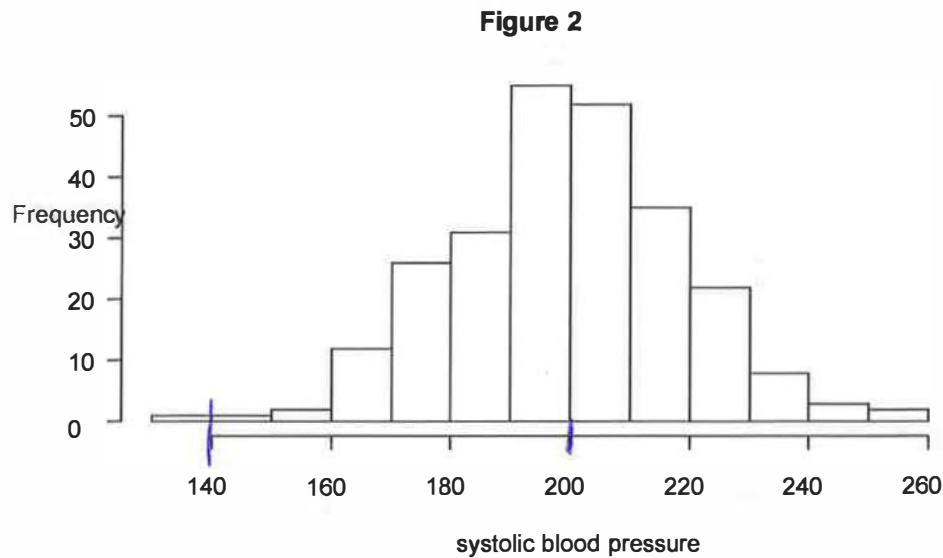
**Question 10**

Figure 2 is a:

1. bar chart.
2. boxplot.
3. histogram.
4. scatter plot.

Question 11

The mean systolic blood pressure for these 250 patients will be approximately equal to:

1. 130.
2. 180.
3. 200.
4. 220.

Question 12

The standard deviation of the systolic blood pressure will be approximately equal to....

1. 5.
2. 20.
3. 140.
4. 260.

Question 13

The distribution of the systolic blood pressure is:

1. approximately symmetrical.
2. bimodal.
3. skewed to the left.

Question 14

What is approximately the 85th percentile (the value below which 85% of the blood pressure values are located, or above which 15% of the blood pressure values are located)?

1. 140
2. 175
3. 220
4. 260

Question 15

Imagine you are a researcher presenting for an audience that knows little or nothing about your topic. You should avoid using ...

1. anecdotes.
2. examples.
3. jargon.
4. visuals.

Question 16

Journal articles are typically peer reviewed, which means that the published work is guaranteed to be ...

1. about the truth.
2. absolutely flawless.
3. evaluated critically.
4. tested and replicated.

Vraag 17

In Pubmed wil je een review-artikel opzoeken van de auteur Edwin JP Jansen die werkzaam is in het Zuyderland Medical Centre. Met welke zoekterm in Pubmed is de kans het grootst dat je het juiste artikel snel vindt?

1. Jansen EJP
2. Jansen EJ review
3. Jansen review
4. Review Zuyderland Medical Centre

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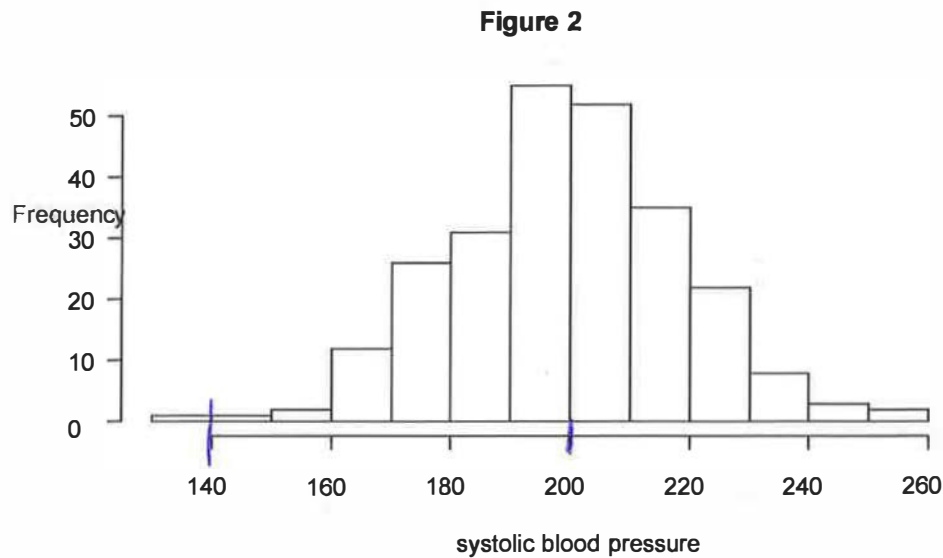
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Question 1

Scientific thinking is mostly based on the empirical cycle. What does 'empirical' mean?

1. A study can be repeated and the same results will be found.
2. Evidence is collected by making systematic observations.
3. Ideas are generated through theorizing and assumption.
4. Studies are realistic and relevant to the real world.

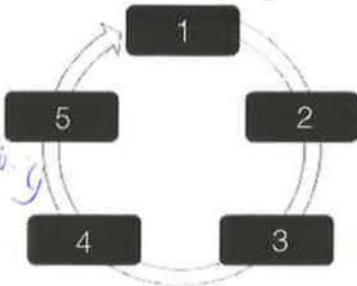
Question 2

Figure 1: Representation of the empirical cycle

The empirical cycle consists of various stages including in alphabetic order: Deduction, Evaluation, Induction, Observation, and Testing. What action takes place in position 5?

1. Deduction
2. Evaluation
3. Induction
4. Observation
5. Testing

Question 3

What is another name for the 'scientific method'?

1. Hypothetico-deductive method
2. Theoretical-empirical method
3. Trial and error

Question 4

Scientific thinking involves critically evaluating ideas and forming testable hypotheses. The first step in testing the hypotheses is:

1. analysis.
2. design.
3. interpretation.
4. observation.

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