Question 1: Which of the following is the best definition of a research methodology for technology?

A The design and investigation of artifacts in context.

B The design and investigation of interactions between artifacts and their context.

C The scientific investigation of anything designed by humans.

D A scientific method for engineers.

Question 2: What is a difference between natural science and research within technology?

A Technology aims to change the world, natural science tries to understand it.

B Technology is for engineers, natural science for scientists.

C Natural science does not cover implementation.

D Scientific research explores technology as if it was a natural phenomena.

Question 3: Which of the following is not an artifact as defined in the preparation?

A An electron

B A Python program

C An electric circuit

D A standard for electromagnetic protection of electronic circuits

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Question 4: What is the difference between the engineering cycle and the design cycle?

A The engineering cycle also includes the actual implementation of the artifact in the real world.

B The engineering cycle has the same steps as the design cycle, but with less scientific rigor.

C The design cycle aims at evaluating an artifact in context.

D The design cycle extends the engineering cycle.

Question 5: What is another term for *treatment*?

A solution

B artifact

C result

D system implementation

Question 6: What is the difference between *evaluation* and *validation*?

A Evaluation requires that we observe the artifact in its real-world context, the validation does not.

B Evaluation is the design-science equivalent to what validation is in natural science.

C Evaluation includes the implementation phase, validation does not.

D They only differ in extend and effort spent. Evaluation is more elaborate than validation.

Question 7:

A Knowledge questions have a single answer.

B Design problems have a single artifact as result.

C Design problems are evaluated by truth.

D Knowledge questions are evaluated by the utility to the stakeholder.

Solutions for Teams

Team X: GG5SXM 1d 2a 3a 4c 5d 6d 7c

Team X

Forenavn Etternavn:7a 5a 1d 3a 6b 4c 2c

RAT: **Research Methodology for Technology**
Team: **X**

Solve this quiz together in your team. To get the solution as you work, do the following:

1. Exactly one member of your team should install the app **Nøtteknekker** on iPhone.
2. Open the app.
3. Use the following code in the app:
   GG5SXM

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RAT: **Research Methodology for Technology**

Name: **Forenavn Etternavn** — xx
Team: **X**

Instructions:

- Select **one** answer alternative for each question.
- Select the answer alternative that matches **best**.
- **1 handwritten page** is allowed (no calculators).
- Only write within the answer box.

Answers: (A, B, C, or D)

1	2	3	4	5	6	7	8	9	10

Checksum: (Count how many of each letters you have used.)

A	B	C	D

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