

## Unit 3 - Week 1: Introduction to the topic and on types of reasoning

### Course outline

How does an NPTEL online course work?

Assignment "0"

**Week 1: Introduction to the topic and on types of reasoning**

- Lecture 1: Introduction to the topic
- Lecture 2: Where do research ideas come from?
- Lecture 3: Inductive vs Deductive Reasoning

Quiz : Assignment week-1

Feedback For Week 1

Week 1 assignment solution

**Week 2: Scientific hypothesis and abstract writing**

**Week 3: How to write a research article**

**Week 4: Preparing figures and schematics, and oral communication**

Lecture notes

Text Transcripts

VIDEO DOWNLOADS

Live Sessions

## Assignment week-1

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-02-12, 23:59 IST.**

1) Professional Scientific Communication involves: 1 point

- Developing and enhancing the skills required for effective communication.
- Understanding the importance of peer review and criticisms.
- Ethics in scientific research
- All of these.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All of these.

2) Which one of the following skill-sets are required for a good scientific presentation at a conference? 1 point

- Verbal communication
- Non-verbal communication
- Visual communication
- All of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All of these

3) The image given below represents: 1 point



- verbal communication
- written communication
- visual communication
- all of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
visual communication

4) Where do research ideas come from? 1 point

- Personal/professional experience
- Literature
- Theory
- All of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All of these

5) Which one of the following statements correctly distinguishes between Inductive reasoning (IR) and Deductive reasoning (DR)? 1 point

- IR is used by scientists whereas DR is used by common people
- IR involves drawing conclusions from specific observation whereas DR involves drawing a conclusion from a general theory
- IR draws a conclusion from a general theory and DR involves drawing conclusions from specific observations
- IR is based on scientific experiments while DR is based on hypothetical examples

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
IR involves drawing conclusions from specific observation whereas DR involves drawing a conclusion from a general theory

6) The table shown here lists a few scientific terms in "Column I" and an explanation for the terms in "Column II". Identify the option that correctly matches the term in "Column I" with the explanation given in "Column II": 1 point

	Column I		Column II
A	Fact	i	Our observations about the world around us as it is
B	Hypothesis	ii	A well-substantiated explanation acquired through the scientific method and repeatedly tested and confirmed through observation and experimentation.
C	Theory	iii	A statement based on repeated experimental observations that describes some phenomenon of nature. Proof that something happens and how it happens, but not why it happens.
D	Law	iv	A proposed explanation for a phenomenon made as a starting point for further investigation

- A - i; B - iv; C - ii; D - iii
- A - ii; B - i; C - iii; D - iv
- A - ii; B - i; C - iv; D - iii
- A - iii; B - ii; C - iv; D - iii

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
A - i; B - iv; C - ii; D - iii

7) Which one of the following is NOT a scientific approach? 1 point

- Asking a question
- Proposing a hypothesis
- Test a prediction
- None of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
None of these

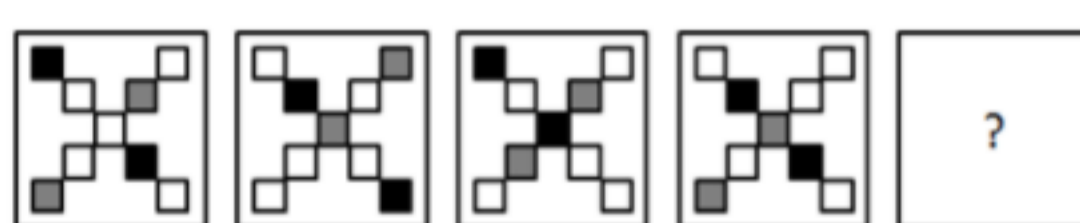
8) Which one of the following options represents the correct order for developing a hypothesis for a research proposal? 1 point

- Ideas> observation and literature survey> problem statement> hypothesis
- Observation and literature survey> hypothesis> problem statement> ideas
- Ideas> problem statement> observation and literature survey> hypothesis
- Problem statement> ideas> observation and literature survey> hypothesis

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Ideas> observation and literature survey> problem statement> hypothesis

9) The following is a typical example of a reasoning test to predict the pattern for the unfilled box with the question mark. This is an example of 1 point



- Inductive reasoning
- Deductive reasoning
- Common sense
- Probability

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Inductive reasoning

10) The statement, "Every time Jaya eats peanuts, she starts to cough. Jaya is allergic to peanuts.", is a good example of: 1 point

- Inductive reasoning
- Deductive reasoning
- Darwinism
- Lamarckism

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Inductive reasoning