LAST (Family) NAME: _____

FIRST (Given) NAME: _____

STUDENT NUMBER: _____

UNIVERSITY OF TORONTO
Faculty of Arts & Science

DECEMBER 2018 EXAMINATION
HPS210H1

Duration: 2 hours

Aids Allowed: None

Exam Reminders:

- Fill out your name and student number on the top of this page.
- Do not begin writing the actual exam until the announcements have ended and the Exam Facilitator has started the exam.
- As a student, you help create a fair and inclusive writing environment. If you possess an unauthorized aid during an exam, you may be charged with an academic offence.
- Turn off and place all cell phones, smart watches, electronic devices, and unauthorized study materials in your bag under your desk. If it is left in your pocket, it may be an academic offence.
- When you are done your exam, raise your hand for someone to come and collect your exam. Do not collect your bag and jacket before your exam is handed in.
- If you are feeling ill and unable to finish your exam, please bring it to the attention of an Exam Facilitator so it can be recorded before leaving the exam hall.
- In the event of a fire alarm, do not check your cell phone when escorted outside.

Special Instructions:

None

Exam Format and Grading Scheme:

Part A. worth 8 marks

Part B. worth 12 marks

Part C. worth 10 marks

Part D. worth 10 marks

Students must hand in all examination materials at the end

Part A.

Draw lines between appropriates. Use this sheet. (8 x 1 = 8)

Newton	[a]	(1)	the amber effect
Descartes	[b]	(2)	anti-anthropocentrism
Leeuwenhoek	[c]	(3)	vortices of matter
Gilbert	[d]	(4)	Inductive method
Galileo	[e]	(5)	pocket watch
Bacon	[f]	(6)	reflecting telescope
Hooke	[g]	(7)	inclined plane
Copernicus	[h]	(8)	animalcules

Part B.

Define any 6 of the following terms in a paragraph consisting of 3 or 4 sentences each. Use illustrations, if you wish, and an example, where needed. Use booklet. (6 x 2 = 12 marks)

1. phenomenon (for Newton)
2. primary/secondary quality distinction (for Galileo)
3. thought experiment
4. sunspots (for Kepler)
5. transmission of forms
6. gray drone fly
7. Kepler's third law of motion
8. spontaneous generation

Part C

Write a brief (2 to 3-page essay) on ONE of the following questions. Use booklet. (10 marks)

1. The mechanical philosophy is essentially the view that all phenomena are to be explained in terms of the so-called mechanical properties of bodies (magnitude, figure, and motion). With reference to the views of ONE 17th century scientist, what are the guiding assumptions of this philosophy?

~~2. The impact of the mechanical philosophy can be seen in the major figures of the scientific revolution of the seventeenth century. Critically evaluate this impact with respect to two of the scientists who played a central role in this revolution.~~

Part D

Write a brief (2 to 3-page essay) on ONE of the following questions. Use booklet. (10 marks)

3. During this course, we have discussed the rather intense interaction between science and religion in the seventeenth century. With reference to the contributions of two of the major figures that we have discussed during this course, discuss whether you regard this relationship as positive, negative, or a combination of both.

4. Copernicus and his followers worked hard to provide a novel solution to "the problem of the planets," as it was passed down from antiquity. What is this problem? What solution did Copernicus advance to this problem? In what way does the law of inertia redefine the "problem of the planets"?

Exam Total: 40