SAMPLE FINAL EXAMS

10 short essay questions (5 points each)

#1 Chief Seattle had a vision of a natural sustainable world. How can such a vision be an inspiration to engineers?
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#2 What does Csikszentmihalyi’s notion of flow have to do with focal practices? Examples?
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#3 Explain what Winner would mean by saying that TV and the Internet lead to the evacuation of the public space.
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#4 What is e-waste and how does it fare under the assessment of process ethics?
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#5 Show how from a virtue ethics (fairness/honesty/care) point of view Tesla’s decisions were aimed at achieving the Good.
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#6 Discuss the conflict between the process ethics value of social justice and the aim of capitalism to maximize profits only.

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#7 Explain the “nesting effect” that occurs with the virtue ethics system of fairness/honesty/care.

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#8 What is the difference between being absorbed by technology and being engaged with technology? Illustrate with examples from engineering practice.

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#9 Explain with an example the difference between a ready-to-hand and a present-at-hand entity.

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#10 What does Stivers mean by saying that in a technological civilization “reflex supplants reflection”? 

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10 short essay questions (5 points each)

#1 An engineer “fudges” data and presents bogus results to her group. Show how such behavior is wrong from both a Respect for Persons point of view and from a Utilitarian point of view.

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#2 What’s the difference between Bentham’s and Mill’s versions of utilitarianism?

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#3 How come Kant is usually seen as a logical rationalist rather than an emotional intuitivist?

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#4 With reference to the focal engineering assessment triangle, what is the difference between resonance and harmony?

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#5 From the Story of Stuff video, why is the radio Annie Leonard buys so cheap” ($4.99)

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#6 How would you distinguish between *a priori* and *a posteriori* moral responsibility? Illustrate with an example from engineering practice.

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#7 Show how ethical imagination is more important to Focal Engineering than it is to Modern Engineering.

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#8 Explain Koestler’s use of Janus, the double-face Roman god of thresholds.

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#9 How can a device, like a toaster, also be a focal product?

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#10 What does it mean to say that focal things and practices have a “commanding” reality?

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25 short answer (fill in) or multiple choice (circle) Questions (two points each)

1) Of the four key features of a profession (knowledge, autonomy, obligation, commitment) ________________ is most problematic for engineering.
2) Linear metabolism is to wastefulness as ____________ metabolism is to sustainability.
3) The virtue of personal justice is the same thing as
   a) Patience
   b) Courage
   c) Fairness
   d) Wisdom
   e) Kindness.
4) Michael Polyani says in all processes of knowing we attend from a tacit realm of knowing to an ___________ realm of knowing.
5) Practical wisdom consists of moral will and moral ____________.
6) Aristotle’s ethics employ the concept of the Golden ________.
7) Rifkin maintains that the central paradox of our times is the conflict between ___________ and entropy.
8) Scott Campbell thinks we should complement the welfare idea involving equity and ecology with ______________.
9) Personality is to seeming as character is to ____________.
10) According to Borgmann, with most devices ______________ goes with disburdenment.
11) Winner says we should advocate engineered products that enlarge
    a) Salaries
    b) Profits
    c) Freedom
    d) Security
    e) Curiosity
12) Another name for rule of thumb is _________.
13) Engineering Professionalism mediates the engineer’s ____________ to society and his/her rights from society.
14) Most engineering codes of ethics charge the engineer with having to protect the health, safety, and ____________ of the public.
15) According to Borgmann, within devices, while the commodity aspect of the device stands out, the machinery aspect of the device _________.
16) Character is generally not constituted by
    a) Temperament
b) Upbringing
c) Technological design
d) Social environment
e) Voluntary action.

17) Three of Aristotle’s four causes open up context by asking about origins. They are the Formal Cause, the Material cause, and the ______________ Cause.

18) The focal engineer balances Befindlichkeit and ________________.

19) Which of these values are not related to colonization?
   a) Control
   b) Rationalization
   c) Effortlessness
   d) Quantitative measures
   e) Efficiency.

20) Gesellschaft is a community of ____________, whereas Gemeinschaft is a community of intimacy.

21) The four branches of classical philosophy are ethics, metaphysics, aesthetics, and ________________.

22) Crossing the Postmodern Divide, according to Borgmann, we move in the direction of either Postmodern Realism or ________________?

23) Being-in-the-World is the fundamental characteristic of what Heidegger calls ____________.

24) In balanced focally engineered products we see a balance between colonization and ________________.

25) Focal engineering seeks to augment the person/product accord with an accord that involves
   a) person/product/world
   b) world/self/other
   c) economy/ecology/equity
   d) ecology/equity/self
   e) product/power/process
25 short answer Questions (fill in) or multiple choice (circle)  (two points each)

1) The ___________ view of the engineering project sees it as embedded in a variety of contexts.

2) __________ metabolism is to wastefulness as circular metabolism is to sustainability.

3) The virtue of personal justice is the same thing as
   a. Patience
   b. Courage
   c. Objectivity
   d. Wisdom
   e. Kindness

4) Michael Polyani says in all processes of knowing we attend from a __________ realm of knowing to an explicit realm of knowing.

5) Practical wisdom consists of moral skill and moral __________.

6) The ethics of (whom) ____________ employs the concept of the Golden Mean.

7) We try to escape from a vicious circle but try to __________________
    a hermeneutic circle.

8) Engineering is both world shaping and world __________.

9) Personality is to seeming as ____________ is to being.

10) We associate dolors and hedons with ________________ ethics.

11) Winner says we should advocate engineered products that enhance
   a. Salaries
   b. Disburdenment
   c. Democracy
   d. Capitalism
   e. Mobility.

12) Engineering Design is defined as an iterative multi-stage process with __________ between stages.

13) Engineering Professionalism mediates the engineer’s responsibility to society and his/her __________ from society.

14) Most engineering codes of ethics charge the engineer with having to protect the welfare, safety, and ___________ of the public.

15) According to Borgmann, within devices, while the ___________ aspect of the device stands out, the machinery aspect of the device recedes.

16) Character is generally __________ constituted by
a. Genetics  
b. Childhood experience  
c. Engineering activity  
d. Peer expectations  
e. Pure happenstance

17) Three of Aristotle’s four causes open up context by asking about origins. They are the Formal Cause, the Efficient Cause, and the ________ Cause.

18) The focally engineered product balances ____________ with contextualization.

19) Which of these values are not related to colonization?  
a. Functionality  
b. Calculability  
c. Leisure  
d. Productivity  
e. Predictability

20) Gesellschaft is a community of functionality, whereas Gemeinschaft is a community of ____________.

21) The four branches of classical philosophy are ethics, metaphysics, aesthetics, and ____________.

22) The realm of Technological Systems is a subset of the realm of ____________.

23) Moral exemplars are  
   a. values  
   b. systems  
   c. structures  
   d. people  
   e. codes

24) Material Ethics is a form of  
   a) utilitarianism  
   b) deontology  
   c) consequentialism  
   d) virtue ethics  
   e) rights ethics

25) In balanced focal engineering we see a balance between local and ____________ concerns.