

91-201
ENGINEERING MANAGEMENT & GLOBALIZATION
 Fall 2012
 Prof. Z. Pasek

October 2, 2012

MID-TERM EXAM I

SOLUTIONS

[WHITE]

THIS IS A CLOSED-BOOK & CLOSED-NOTES EXAM

First Name	
Last Name	
Student ID	
Honor Pledge: I have neither given nor received aid on this exam. <i>signature</i>	

My expected score on this exam: _____%.

----- Do not write below this line -----

Q1		Q8		Q16	
Q2		Q9		Q17	
Q3		Q10		Q18	
Q4		Q11		Q19	
Q5		Q12		Q20	
Q6		Q13		Q21	
Q7		Q14			
Σ		Q15			
		Σ		Σ	

Grand Σ

I. MULTIPLE CHOICE [4 PTS EACH]

Circle best choice

- Total population (number of people) of the Earth is now slightly exceeding
 - 12 billion
 - 7 billion**
 - 5 billion
 - 4 billion
 - 2 billion
- According to "TheWorld Is Flat," the #1 force that flattened the world was the fall of the Berlin Wall in November of 1989. The wall was built overnight in 1963 during a period referred to as
 - 30-year war.
 - revolutionary war.
 - orange war.
 - Boer war.
 - cold war.**
- When a North American company shuts down its local factory making one of its own product and then contracts a company located in South-East Asia to deliver that product, it is called:
 - outsourcing.
 - insourcing.
 - open sourcing.
 - offshoring.**
 - backshoring
- The key element of inverse brainstorming approach to problem solving is...
 - Finding out what caused a problem**
 - Generate a lot of ideas
 - Withold criticism
 - Invite unusual ideas
 - Combine and improve ideas
- The curve representing growing product maturity and adoption by consumers is called
 - U-curve
 - V-curve
 - Z-curve
 - S-curve**
 - L-curve
- The difficulty to see beyond the current models of thinking can be referred to as...
 - Paradigm Shift
 - Paradigm Effect
 - Paradigm Complexity
 - Back to Zero
 - Paradigm Paralysis**
- All the countries listed below are members of the G8 (world's largest economies) except
 - Canada
 - United States
 - China**
 - Russia
 - Italy

8. The following factors have significant impact on the final cost of the product. Rank their importance in terms of their own cost and ability to influence three other factors:

	<i>Cost</i>	<i>Influence</i>
Design	4	1
Materials	1	2
Labor	3	3
Admin. costs (overhead)	2	3

BONUS QUESTIONS

9. [4 pts] Who is the president of Canada?
 A. Jean Chretien
 B. Dalton McGuinty
 C. Steven Harper
 D. Pierre Trudeau
E. None of the above
10. [4 pts] According to “The World is Flat”, Globalization 1.0 & 2.0 were generally led by who?
 A. Asia & Europe
 B. Scandinavia & Russia
 C. Russia & Western Europe
D. America & Europe
 D. America & China

II. TRUE OF FALSE [3 PTS EACH]

Circle correct answer [T] = True and [F] = False

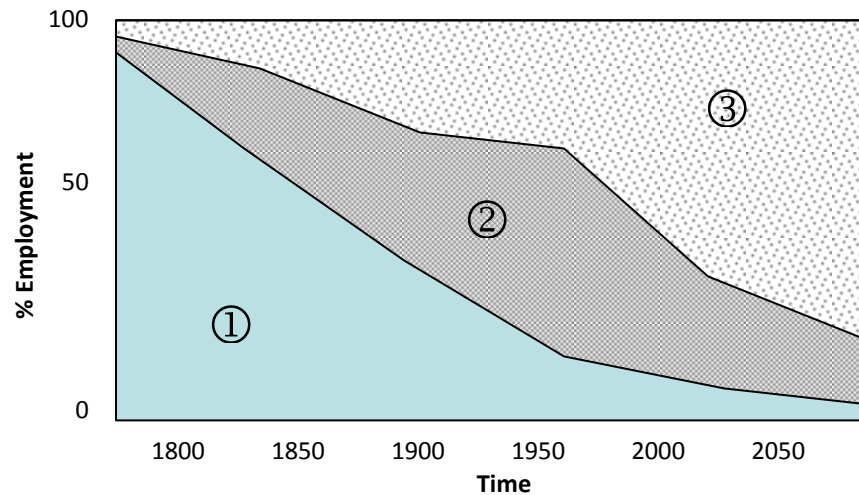
11. [T] [F] Russia is the largest country in the world by landmass area.
12. [T] [F] A company will fail even if it has excellent business and marketing units but does not have the right product/service to offer.
13. [T] [F] A paradigm is a system of rules that sets optimizes resources and provides guidance for solving problems.
14. [T] [F] Globalization is a process in which rich countries enrich themselves by exploiting poor countries more and more.
15. [T] [F] Inventor is someone who introduces new product, service or process to the market.

III. SHORT ANSWERS

Keep your answers brief and use appropriate terminology from the course

16. [6 pts] The graph shows evolution of the employment structure in the developed economy over time. Label properly the areas of employment in its various segments marked on the graph:

- ① Agriculture _____
- ② Industry _____
- ③ Services _____



17. [5 pts] Expand the following acronyms:

- WTO World Trade Organization _____
- WHO World Health Organization _____
- NAFTA North American Free Trade Agreement _____
- EU European Union _____
- BRIIC Brazil, Russia, India, Indonesia and China _____

18. [5 pts] In the Paradoxical Product exercise, new product idea was achieved by removing the main function from an existing product. Which of the SCAMPER tools can lead to a similar result?

M - minify

19. [10 pts] Read the following statement, indicate whether you agree with it or not and explain briefly your answer in a few sentences:

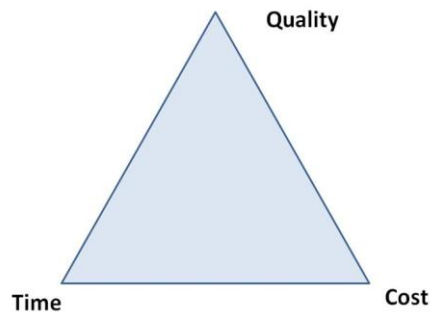
International trade should be restricted since its enormous increase over the past decades severely harms poor developing countries.

[Agree] [Disagree]

Free trade is a prerequisite for a producer or country to benefit from the gains of specialization. Theoretically and empirically a positive relationship between the openness of markets (and countries) and economic growth is evident and well founded.

Foreclosure of markets or countries is devastating for economic growth and living standards (see e.g. Cuba and North Vietnam). There is no example where a country's economic opening has led to economic decline. Quite to the contrary, China's opening has contributed to its strong growth in the past decade. Any restrictions on trade (e.g. import tariffs and import quota) reduce the gains from trade and specialization, thereby harming producers and consumers likewise.

20. [5 pts] Explain what is the Project Management decision triangle.



Planning for Quality: The Work Breakdown Structure (WBS) - the systematic division of a project into steps, or units of work, to be completed in a sequence. Precise specification of each step of in the project

Planning for cost: determine cost of labour, overheads, materials, supplies, equipment, general, admin, profit, etc.

Planning for time: determine the duration of each step, the earliest time a step may be started, the latest time a step must be started

21. [25 pts] Companies operating in all kinds of industries understand that they have to innovate or die. Take for example, the film industry. It was started with the first private film presentation by **Lumiere brothers** in 1895 (see fig.) in Paris. Before movies, zoetrope device was popular in creating illusion of motion from a sequence of static images.

Given your knowledge of this industry, track the major paradigm changes (e.g., shifts) in the visual recording technology. Create a reverse-chronology list (most recent events go first). Mark the key dates if you can. Think of it in terms: how am I doing this (listening to music) vs. how have my parents or grandparents done it?



Lumiere brothers



Zoetrope device

- Digital video recording, streaming video
- Digital video recording + DVD
- Analog video recording + magnetic tape (VHS, beta) + magnetic wire
- Color and sound celluloid film
- Silent b&w celluloid film
- Animated still images
- Live performance (that's actually a pre-recording paradigm)