

NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY



HAROLD PUPKEWITZ GRADUATE SCHOOL OF BUSINESS

Postgraduate Diploma in Management (PGDM)

COURSE NAME : Project Leadership and Management
COURSE CODE : PLM811S
DATE : 04 June 2019
MARKS : 100 marks
DURATION : 3 Hours including reading time

1st OPPORTUNITY: EXAMINATION QUESTION PAPER
(6 pages, including the cover page).

Examiner : Mr Trevor Lake
Moderator : Mr Bill Pierce

INSTRUCTIONS

- The examination is **OPEN-BOOK**. Calculators may be used.
- Answer **TWO** questions in **Section A and Section B**
- You may answer questions in any sequence within each Section, but indicate clearly, which Question is being answered.
- Credit will be given where part of an answer is correct and where the reasoning and method are valid. If anything is not clear, state your assumption.

FINAL TEST PAPER: FIRST OPPORTUNITY

SECTION A

QUESTION 1 (25 MARKS)

A) Preparing a sandwich at a hotel involves the following activities. Prepare a timeline or Gantt chart and show the critical path.

Preceding Activity	Activity time (minutes)	Activity	Description
None	1	a	Prepare utensils
a	3	b	Order butter and sauce
a	2	c	Order lettuce and pickles
a	3	d	Order prawns
a	4	e	Order bread
c, d	3	f	Boil prawns and butter bread
b, f	2	g	Add lettuce
e, g	1	h	Add prawns and sauce

(8 Marks)

B) What can go wrong with this simple project? Discuss the potential risks in this project and prepare a Risk Assessment Matrix for the project covering likelihood and impact. Give your "Plan B" for each.

Examine at least 5 possible risks.

(5 Marks)

C) Why is the critical path a helpful concept in project planning and control? Discuss

(6 Marks)

D) What are the terms "slack" and "float" in your project plan? How do they assist in managing your project from a time point of view?

(6 Marks)

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QUESTION 2 (25 Marks)

A catering manager has been asked to organise a banquet for 100 guests. Identify the critical activities and **prepare a timeline** showing the activities and calculate the **float or slack** on all the non – critical activities and **list them in a table**.

Activity	Duration	Preceding Activities
A Prepare ingredients	30	
B Clean room	20	
C Prepare room and lay tables	20	B
D Prepare dressings and cold dishes	20	A
E Prepare meat, to oven	30	A
F Meet and seat guests	50	C, D, E
G Plate, dress and serve starter	70	C, D, E
H Cook vegetables	30	C,E
I Plate up puddings	20	C,E
J Clear starter, serve main course	15	G, H
K Clear main, serve pudding and coffee	15	J
L Clear tables	20	K

(10 Marks)

B) You have been appointed as a project manager for a number of mining projects in the Philippines for Gold Fields. You will be taking your family which includes two young children to Manila for two years. Highlight the issues which you will be facing in taking this international project and discuss the way in which you will deal with them.

(8 Marks)

C) *Project reviews* at the close of a project are one of the most important elements of the project life cycle. Why are they important and what items should be covered and why?

(7 Marks)

FINAL TEST PAPER: FIRST OPPORTUNITY

QUESTION 3 (25 Marks)

America's energy crisis

America is an operation which requires managing, as with any household, company or multi-national. It has unique problems, some of which threaten the security of the country and its population, in particular it's way of life...

The United States of America is the largest economy in the world by a long way. It is also the largest consumer of energy – coal, oil, nuclear and probably soon renewable. At this point in time the American economy is driven by oil. The triangular relationship between companies, host governments and home-country governments is at the heart of policies and politics in the international petroleum industry. Issues facing America with regard to security of energy – and the economy and future of the country – are as follows:

- America imports most of the oil it consumes. This is mainly for strategic reasons as America knows that to remain competitive, it must retain the reserves of oil that it has, in case of future shortages. The source of these imports has in the past been the Middle East, Saudi Arabia in particular. In recent years America has scaled up exploration significantly by expanding the exploration limits in the Gulf and off the Atlantic coast and also in the Arctic.
- Oil prices are, in large, set by the OPEC oil producing companies. Non-OPEC countries follow the price setting. Costs of production as recently as 10 years ago were in the region of \$20 per barrel, with selling prices of around \$30 to \$40 per barrel. The price skyrocketed to the \$60 per barrel level in 2007, and to \$100 plus today. It has remained remarkably constant, which suggests that the price is successfully manipulated. No-one is increasing supply to reduce price – or likely to in the short term.
- Options are open. Solar, wind, biomass and wave solutions are being explored. At this point in time all are far too expensive. It is doubtful that any expenditure on research and development will make any of these technologies viable either from a cost point of view or an ability to provide sufficient energy to meet growing requirements for the next millennium.
- Nuclear will close the energy gap. The recent Fukushima tsunami disaster has impacted on the implementation of this energy source, but is largely seen as a panic reaction – tsunamis are not common in Germany and 65% of France's energy is provided by nuclear. America has numerous nuclear power sources around the country. However, the costs of a new nuclear plant are estimated at 5 times the cost of a coal fired power station – although the input costs are one third on an ongoing basis.
- Coal is still readily available – and the technology is well established. It is likely that developing nations (like the BRICS) will continue to ramp up the energy production from this source. The reaction from environmentalists will continue to grow, but given the choice between less carbohydrates in the atmosphere for the Western world or no electrical power in the developing world (the larger portion of the world's population), the solution is simple.

FINAL TEST PAPER: FIRST OPPORTUNITY

- Fracking is a relatively new technology and being tested in a number of locations successfully in terms of energy production. While not inexpensive in America, it is American. The environmental impacts are being debated on a daily basis, but the potential appears considerable. LNG gas deposits are being found around the world and will contribute to the world energy pool. They are, however, still hydrocarbon inputs and have the potential to lead to pollution of the environment.
- Finally, oil reserves around the world are still significant. The largest reserves are still in the Middle East, although significant reserves exist in North Africa, Russia, Indonesia, Venezuela, Mexico and numerous other locations in Africa. Unusual and significant reserves exist in the tar sands of Athabasca in Canada.

A) Discuss the **Strategic issues** facing America. What are the **competitive factors, opportunities and risks** facing the country regarding the supply chain for energy – and possible implications?

(7 Marks)

B) What does the **supply chain for energy** look like for America? How could America **resolve supply for energy by diversifying its suppliers and what would the impact be?**

(9 Marks)

C) What projects would need to be developed **to the distribution of energy for America to remain competitive** in the future?

(9 Marks)

FINAL TEST PAPER: FIRST OPPORTUNITY

SECTION B (50 Marks)

You have a familiar situation which needs resolution. You need to **provide a Project Scope of Work including Objectives, Stakeholders, Issues facing the company, Project Definition and resolution of issues, Scheduling, Budget and Risk Analysis** for this project. Use creativity and guesstimates in preparing the likely performance numbers.

The Tao of Timbuk2

“Timbuk2 is more than a bag. It’s more than a brand. Timbuk2 is a bond. To its owner a Timbuk2 is a dependable, everyday companion. We see fierce, emotional attachments form between Timbuk2 customers and their bags all the time. A well-worn Timbuk2 bag has a certain patina – the scars and stains of everyday urban adventures. Many Timbuk2 bags are worn daily for decades, accompanying the owner through all sorts of defining life events. True to our legend of indestructibility, it’s not uncommon for a Timbuk2 bag to outlive jobs, personal relationships, even pets. This is the Tao of Timbuk2”

What makes Timbuk2 so unique? Each bag is custom designed by the customer on their Web site. After the customer selects the basic bag configuration and size, colours for each of the various panels are presented. Various lines, logos, pockets and straps are selected so that the bag is tailored to the exact specifications of the customer. A quick click of the mouse and the bag is delivered directly to the customer in only two days. How do they do this?

This San Francisco based company is known for producing high quality custom and classic messenger bags direct to customer order. They have a team of approximately 25 hard working cutters and sewers in their San Francisco plant. Over the years they have fine-tuned their production line to make it as efficient as possible while producing the highest quality messenger bags available.

The local manufacturing is focused on the custom messenger bags. For these bags, orders are taken over the Internet. The customers are given configurations of size, colour, pocket and strap options. The bag is tailored to the exact specifications of the customer on the Timbuk2 assembly line and sent via overnight delivery directly to the customer.

Recently, Timbuk2 has begun making some of its new products in China, which is a concern to some of its long-standing customers. The company argues that it has designed its new products to provide the best possible features, quality and value at reasonable prices and stresses that these new products are designed in San Francisco. Timbuk2 argues that the new bags are much more complex to build and require substantially more labour and a variety of very expensive machines to produce. They argue that the San Francisco factory labour cost alone would make the retail price absurdly high. After researching a dozen factories in China, Timbuk2 found one that it thinks is up to the task of producing these new bags. Much as in San Francisco, the China factory employs a team of hard-working craftspeople who earn good wages and an honest living. Timbuk2 visits the China factory every 4 to 8 weeks to ensure superior quality standards and working conditions.

On the Timbuk2 Web site the company argues they are the same hard-working group of bag fanatics designing and making great bags and supporting our local community in an increasingly competitive global market. The company reports that demand is still strong for the custom messenger bags made in San Francisco and that the new laptop bags sourced from China are receiving rave reviews. The additional business is allowing them to hire more people in all departments at the San Francisco headquarters – creating even more jobs locally.