FINAL EXAMINATION

TERM	COURSE NAME	COURSE CODE	VERSION
Summer 2020	Project Management Methodologies	BTS730	NA

Name	(write your full name here)
Student Number	(write your student number here)
Section	(write your section number here)

DATE: _Aug 13th 2020_____

EXAM TIME ALLOWED: 2.5 hrs
SUBMISSION WINDOW _24 Hrs _____
PERCENTAGE: __30%_____
TOTAL MARKS: _____100_____
PROFESSOR(S):   ___Ben Torres _____

SPECIAL INSTRUCTIONS:

1. Please answer all questions and all parts of each question.
2. Write your answers in MS Word and submit via BB.
3. Other special instructions [if necessary]

This exam includes a *cover page*, plus _6 pages of questions.

APPROVED BY:
Kathy Dumanski, Chair, School of SDDS

Question 1 – 20 marks

You obtain the table that shows slacks on your **schedule:**

Table 6-1: Free and Total Float or Slack for Project X

TASK NAME	START	FINISH	LATE START	LATE FINISH	FREE SLACK	TOTAL SLACK
A	8/1/09	8/1/09	8/3/09	8/3/09	0d	2d
B	8/1/09	8/2/09	8/1/09	8/2/09	0d	0d
C	8/1/09	8/3/09	8/3/09	8/7/09	0d	2d
D	8/2/09	8/7/09	8/8/09	8/9/09	2d	2d
E	8/3/09	8/9/09	8/3/09	8/9/09	0d	0d
F	8/3/09	8/8/09	8/14/09	8/17/09	7d	7d
G	8/8/09	8/13/09	8/8/09	8/15/09	0d	2d
H	8/10/09	8/17/09	8/10/09	8/17/09	0d	0d
I	8/14/09	8/15/09	8/18/09	8/17/09	2d	2d
J	8/20/09	8/22/09	8/20/09	8/22/09	0d	0d

33

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a) Please explain the use of free and total slacks indicated in the table?

b) Assume that you observe that there are issues with starting tasks at planned dates. How can slacks help you to find a resolution to these issues?

c) Outline four processes involved in Project Schedule Management & Indicate why they might be important to timely project completion. (Justify Your Responses)

Question 2 – 20 marks

During the project execution phase your work tasks can be described as "monitoring and control". It all starts with collecting information from the team members that would help to understand the present situation regarding the task's completion. You also need to perform regular data input into MS Project tools. Below you see a fragment of an MS Project schedule that contains useful information for tracking purposes. Please review and answer the questions.

	Task Name	Baseline Start	Baseline Finish	Start Var.	Finish Var.	Actual Start	Actual Finish	% Work Complete
1								
2	⊟ Select Vendor proc	Fri 30/05/08	Fri 30/05/08	0 days	0 days	NA	NA	0%
3	Selected	Fri 30/05/08	Fri 30/05/08	0 days	0 days	NA	NA	0%
4	⊟ Develop Candidate	Mon 21/04/08	Fri 20/06/08	0 days	0 days	Mon 21/04/08	NA	33%
5	⊟ Conceptual desi	Mon 21/04/08	Wed 11/06/08	0 days	0 days	Mon 21/04/08	NA	36%
6	⊟ Develop Busi	Mon 21/04/08	Fri 16/05/08	0 days	0 days	Mon 21/04/08	NA	22%
7	Concept of	Mon 21/04/08	Fri 02/05/08	0 days	0 days	Mon 21/04/08	NA	26%
8	Deliverable	Fri 02/05/08	Fri 02/05/08	0 days	0 days	NA	NA	0%
9	⊟ Develop R	Mon 05/05/08	Fri 16/05/08	0 days	0 days	Mon 05/05/08	NA	20%
10	U	Mon 05/05/08	Mon 05/05/08	0 days	0 days	NA	NA	0%
11	S	Tue 06/05/08	Mon 12/05/08	0 days	0 days	NA	NA	0%
12	Data ana	Mon 05/05/08	Wed 07/05/08	0 days	0 days	Mon 05/05/08	NA	53%
13	S	Thu 08/05/08	Fri 09/05/08	0 days	0 days	NA	NA	0%
14	R	Mon 05/05/08	Fri 09/05/08	0 days	0 days	Mon 05/05/08	NA	32%
15	Delivera	Fri 16/05/08	Fri 16/05/08	0 days	0 days	NA	NA	0%
16	⊟ Develop Data	Mon 19/05/08	Fri 23/05/08	0 days	0 days	Mon 19/05/08	NA	45%
17	Conceptual	Mon 19/05/08	Fri 23/05/08	0 days	–1 day	Mon 19/05/08	Thu 22/05/08	100%
18	Application	Mon 19/05/08	Fri 23/05/08	0 days	0 days	Mon 19/05/08	NA	30%
19	SS operatio	Mon 19/05/08	Fri 23/05/08	0 days	0 days	Mon 19/05/08	NA	30%
20	QA departm	Mon 19/05/08	Fri 23/05/08	0 days	0 days	Mon 19/05/08	NA	30%
21	Deliverable	Fri 23/05/08	Fri 23/05/08	0 days	0 days	NA	NA	0%
22	⊟ Develop Appl	Mon 05/05/08	Wed 11/06/08	0 days	0 days	Mon 05/05/08	NA	40%
23	High-level a	Mon 05/05/08	Mon 05/05/08	0 days	0 days	Mon 05/05/08	Mon 05/05/08	100%
24	⊟ DSS contro	Mon 02/06/08	Wed 11/06/08	0 days	0 days	Mon 02/06/08	NA	38%
25	Ma	Mon 02/06/08	Wed 11/06/08	0 days	0 days	Mon 02/06/08	NA	38%
26	Da	Mon 02/06/08	Wed 11/06/08	0 days	0 days	Mon 02/06/08	NA	38%
27	Co	Mon 02/06/08	Wed 11/06/08	0 days	0 days	Mon 02/06/08	NA	38%

a) At what point in time during your work on the project would the values like "Baseline start" and "Baseline finish" be created? Justify you're answer. (Explain why).

b) What is the difference between "Baseline start" and "Actual start"?

c) In line 17 you observe the value "-1 day" in the column "Finish Variance". What does this mean and how are these values calculated?

d) A week later you will be making additional data inputs to track your progress. Which columns from the list below will you use to perform data input? **(PLEASE WRITE OUT YOUR CHOOSEN COLUMNS BY NAME IN YOUR WORD DOC. RESPONSE AND INCLUDE THE APPROPRIATE COLUMN LETTEER AS WELL IN YOUR MS WORD DOCUMENT).**

e) Why did you choose they columns? Please justify your answers.

- a. Baseline start
- b. Baseline finish
- c. Actual start
- d. Actual finish
- e. % of work complete
- f. Start variance
- g. Finish variance

Question 3 – 20 marks

To control overall up-to-date progress of your project development you generate an Earned Value table with the help of MS Project tools. You are aware that the project success assumes that it is completed on time as scheduled, and the cost does not exceed the approved budget. You want to control cost and schedule specifically. Please see the table below and answer the questions.

	Task Name	Earned Value - EV (BCWP)	AC (ACWP)	SV	CV	EAC	BAC	VAC	Add New Column
1									
2	⊟ Select Vendor product	$0.00	$0.00	$0.00	$0.00	$260.00	$260.00	$0.00	
3	Selected	$0.00	$0.00	$0.00	$0.00	$260.00	$260.00	$0.00	
4	⊟ Develop Candidate arch	$7,637.18	$23,081.18	$7,637.18	-$15,444.00	$208,049.19	$68,840.00	-$139,209.19	
5	⊟ Conceptual design	$0.00	$15,444.00	$0.00	-$15,444.00	$43,420.00	$43,940.00	$520.00	
6	⊟ Develop Business	$0.00	$3,016.00	$0.00	-$3,016.00	$13,520.00	$13,520.00	$0.00	
7	Concept of DSS	$0.00	$1,352.00	$0.00	-$1,352.00	$5,200.00	$5,200.00	$0.00	
8	Deliverable	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
9	⊟ Develop Requir	$0.00	$1,664.00	$0.00	-$1,664.00	$8,320.00	$8,320.00	$0.00	
10	Use ca	$0.00	$0.00	$0.00	$0.00	$520.00	$520.00	$0.00	
11	Sanitiz	$0.00	$0.00	$0.00	$0.00	$2,600.00	$2,600.00	$0.00	
12	Data analysis	$0.00	$832.00	$0.00	-$832.00	$1,560.00	$1,560.00	$0.00	
13	Sanitiz	$0.00	$0.00	$0.00	$0.00	$1,040.00	$1,040.00	$0.00	
14	Requir	$0.00	$832.00	$0.00	-$832.00	$2,600.00	$2,600.00	$0.00	
15	Deliverable	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
16	⊟ Develop Data arch	$0.00	$4,420.00	$0.00	-$4,420.00	$9,880.00	$10,400.00	$520.00	
17	Conceptual data	$0.00	$2,080.00	$0.00	-$2,080.00	$2,080.00	$2,600.00	$520.00	
18	Application own	$0.00	$780.00	$0.00	-$780.00	$2,600.00	$2,600.00	$0.00	
19	SS operations co	$0.00	$780.00	$0.00	-$780.00	$2,600.00	$2,600.00	$0.00	
20	QA department c	$0.00	$780.00	$0.00	-$780.00	$2,600.00	$2,600.00	$0.00	
21	Deliverable	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
22	⊟ Develop Applicati	$0.00	$8,008.00	$0.00	-$8,008.00	$20,020.00	$20,020.00	$0.00	
23	High-level archite	$0.00	$520.00	$0.00	-$520.00	$520.00	$520.00	$0.00	
24	⊟ DSS controlled	$0.00	$7,488.00	$0.00	-$7,488.00	$19,500.00	$19,500.00	$0.00	
25	Master	$0.00	$1,497.60	$0.00	$1,497.60	$3,900.00	$3,900.00	$0.00	

a) Review line 4. The column CV (Cost Variance) contains a negative value. What does this mean regarding the current state of project spending? How would this impact your decision making (your response) as a project manager if your project sponsor asks you to include a last minute new requirement in your project? Justify your answer.

b) Also In line 4, the column SV (Schedule Variance) contains a positive value. What does it mean regarding to the current state of the project schedule? How would this impact your decision making (your response) as a project manager if your project sponsor asks you to include a last minute new requirement in your project? Justify your answer.

c) How do you determine your projects BAC (Budget at Completion)? How is it calculated and what is the value of this figure to your project?

d) In line 4, you see (EAC) Estimate at Completion value which is not the same as BAC Budget at completion (much higher). What does this figure mean regarding the current state of the project's progress? How would this impact your decision making (your response) as a project manager if

your project sponsor asks you to include a last minute new requirement in your project? Justify your answer.

e) A week later, after you update the tracking information, you generate an EV (Earned Value) table again. What do you expect to see in the new version? Will you see the same values? If not, explain why.

Question 4 – 20 Marks

Topic – Develop a quality management plan for Public Transportation in the Greater Toronto Area (GTA)

Assume that you are part of a volunteer team invited by the Greater Toronto Area (GTA) Transport Authority with the goal to develop initial ideas for GTA Transport Service Improvements.
You want to apply quality management methodology to perform your task.
To aid your response please note that you are considering public transport which is a public service with a diverse array of potential quality criteria and metrics.

a) Please define and describe the following:

a) Determine what category of GTA services you will be working on (Please select (1) one - your choice) you have to reference your choice of service in your responses)

   o Subway (City Service)

   o Bus service (City Service)

   o Government of Ontario (Go-trains-Provincial Service)

b) Define the quality criteria for the selected service. What criteria will you use to define quality. (5 criteria)

c) For each criteria define the metrics that you would use to measure progress. Metrics can be qualitative or quantitative, 3 metrics should be quantitative (numbers)

d) Define Quality control checkpoints, in other words, determine how you will perform measurements.

e) Determine what kind of resources (financial, human, time) would be needed to establish quality control based on your criteria.

f) Document your plan in MS Word or MS Excel table (Excel Preferable) with the following structure.

GTA Public Transportation Service _____

#	Quality Criteria (5)	Metric definition. Qualitative & Quantitative	Control checkpoints – How is quality measured.	Resources required to establish quality control

Question 5 – 20 Marks
Please assume a Pre-Covid Communications Scenario when answering this question.

You are an external project manager working for a consulting company on an IT implementation project for a client in the highly regulated financial services industry. Your end client is publicly traded and is unionized. Your organisation (the consulting company) is publicly traded.

You report into a project director at your company as well as the VP of business development who won this contract. You are managing a culturally diverse international team with varied skillsets.
You also report into client stakeholders including the project sponsor who is a VP, the clients technical lead, subject matter experts, and union representatives.

Please answer these questions: (Please provide justification for your responses)
   a) What are three (3) keys to effective communications management in a project environment.
   b) What are you as a project manager trying to achieve by effective communications management.
   c) Use MS Excel or Word (Not PDF) to develop a project communications plan encompassing the stakeholders mentioned.

      a. Your direct report
      b. Your VP of Sales
      c. The Client Project Sponsor
      d. Your international team
      e. The client's Technical Lead &
      f. The client's subject matter experts
      g. The Union representatives

   Please include these headings in your plan for each stakeholder type mention above.
      h. The type of communication
      i. Objective of the communication
      j. The medium of communication
      k. The audience
      l. Typical Topic that will be addressed in your communication to this stakeholder