

UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration Honours in Accounting (Semester V) Examination –
July, 2022

ACT 3205 – Project Management

Two (02) Hours

This is an Open Book Examination

This Paper Consists of Four (04) Questions Printed in Seven (07) Pages

Answer Three (03) Questions in all including Question One (01)

1. Royal Cloth PLC operates in the apparel industry and it manufactures two products named; *Jiggles and Ivory* to the local market. At present, the company is in the process of expanding its market and decided to export the products in to the following two foreign destinations.

Product	Country
<i>Jiggles</i>	USA
<i>Ivory</i>	India

Accordingly, a project team [i.e., Project to export Royal Cloth Products (**PERC**)] has been appointed to analyze the feasibility of the project and the following information has been gathered by them.

- A market research conducted by a research firm at a fee of Rs. 500,000 and confirms the marketability of the products in the two countries.
- It has estimated that both products have a product life span of 5 years. Thus, the company entitles for a tax holiday period of 5 years for this new project.
- The initial investment for the project is estimated at Rs. 25 million and expects to invest an additional capital of Rs. 15 million at the end of the 3rd year.
- Sales and cost information for the project are as follows;

	Year 1	Year 2	Year 3	Year 4	Year 5
Sellable quantity ('000) (total units of both products)	700	1,000	1,000	950	500
Selling price (Rs.) (equal price for both products)	2,000	2,200	2,300	2,500	2,600
Cost of production (Rs. million)	850	900	1,250	1,500	1,000
Working capital requirement (Rs. million)	10	-	-	-	-

- General overheads of the company are estimated to increase by Rs. 5 million per year with the acceptance of the project.
- The cost of capital is 20% per annum. The present criteria use by the management in approving the investment on a project are:
 - Net Present Value (NPV) to be positive
 - Payback period to be equal or less than 3 years
 - Accounting Rate of Return (ARR) to be equal or more than 50%

The team has done a feasibility study for this project PERC and the following are the main factors identified in that study.

- Top management supports the decision and they are committed to adopt the plan.
- The factory located in a 10 acres land and the space is sufficient to expand the factory and storage capacity.
- The current Factory Manager is a textile engineer graduated from the University of Moratuwa and has more than 12 years' experience on the apparel field. Especially, he has worked for several international apparel companies before joining Royal Cloth PLC.
- The company has initially discussed with several retail companies in USA and India and their responses were positive to purchase the products.
- The registered suppliers confirmed that they can supply the raw materials based on the requirement. However, the price of raw materials may vary based on the market conditions.
- Exporting the products will increase the net profit and the market share of Royal Cloth PLC.
- The company expects to recruit a Production Manager as well as fifty additional employees for the export production division. All employees will be recruited based on the experience and exposure they have in the textile industry and machine operations.

- For packing and storage, automated machines will be used. These machines have been already purchased by the company.
- All staff will be trained for mass production and automated machine technology.
- Exporting the products will lead to enhance the efficiency of operations and quality of the products.

Apart from that, the team has used the un-weighted factor scoring model to analyse and evaluate the project. The following information was used in that analysis.

	Criteria	Weight
1.	Payoff potential	High
2.	Availability of the capacity and resources	High
3.	Lack of risk	Moderate
4.	Efficiency of operations	High
5.	Less time consumption	Moderate
6.	Quality output	High
7.	Availability of the required technology	High
8.	Impact on profitability	High
9.	Morale of existing production staff	Low

Factor	Score
High	03
Moderate	02
Low	01

Once the team completed the above activities, they developed the project charter including the content; project vision, project goals and objectives, project scope, project deliverables, stakeholders, key constraints, assignment of responsibilities, and budget allocation.

Based on the above information, answer the following questions.

(Note: All your explanations should disclose the application of above case information. General answers will carry lower marks).

- i. State three (03) mechanisms that can be used to evaluate the project viability.
(03 Marks)
- ii. Compute the following numerical models using the case information given above and interpret the model outcomes based on the criteria used by the management in approving an investment.
- a. Payback Period
(04 Marks)
- b. Net Present Value (NPV)
(08 Marks)
- c. Accounting Rate of Return (ARR)
(04 Marks)
- iii. Develop a feasibility study for the project PERC based on the following factors.
- a. Organization feasibility
- b. Market feasibility
- c. Financial feasibility
(03 Marks * 03 = 09 Marks)
- iv. Compute the un-weighted factor scoring model for the project PERC.
(06 Marks)
- v. According to the answers for part (i), (ii) and (iii) above, discuss your observations and opinion on the execution of the project PERC.
(06 Marks)
- vi. Construct job descriptions for the following positions stating the job role and responsibilities for each position of the above project (**Note: Job descriptions should be aligned to the above case project**).
- a. Project Leader
- b. Factory Manager
(04 Marks * 02 = 08 Marks)
- vii. Develop the content to be included in the project charter based on the above case information.
- a. Project vision and objectives
- b. Stakeholders
(06 Marks * 02 = 12 Marks)
- (Total 60 marks)**

2. i. Cangaroo Ltd operates in the construction industry. On 21st June 2022, the company signed for a contract with Sohail Leisure Resorts to construct ten (10) eco-friendly cottages in Trincomalee. Time duration for this project is one year. A team has appointed for this project consisting of a Project Manager (Chartered Engineer), a Project Assistant, two Architects, a Chartered Accountant, a Legal Advisor, a Site Supervisor and a representative from Sohail Leisure Resorts. Following are the stages of the project.

- Survey
- Design and drawings
- Procurement
- Site preparation
- Construction
- Closing and formal submission

Develop a Work Breakdown Structure (WBS) for this project of construction of eco-friendly cottages.

(14 Marks)

ii. Briefly explain two (02) techniques that can be used to identify risks of a project.

(06 Marks)

(Total 20 marks)

3. i. Mexico Software Ltd engages in developing customized accounting software to small and medium enterprises. The company signed a contract on 10th May 2022 with Renu Curry Powder Ltd to develop a user-friendly accounting software. The job has been assigned to a project team. On 22th June 2022, the team has conducted a meeting to discuss the progress and issues encountered. Accordingly, the following issues were outlined.

	Issue
1.	Delay in procurement of hardware since four authoritative signatures need to be placed to grant the approval to the procurement
2.	Power interruptions and network issues
3.	Lack of communication with Renu Curry Powder Ltd. As a result, insufficient information was available on the nature of the company, their products, requirements, expected features, etc.

4.	Procurement of hardware from unregistered suppliers
5.	Resignation of a software developer and that vacancy has not been filled yet
6.	Since over-time (OT) payments are not entitled, none of the employees work after normal working hours. Thus, majority holds more workload with uncompleted projects.

You are required to:

- a. State the required change (corrective, preventive or detective) for each of the above issue.

(06 Marks)

- b. State a remedial action based on the required change mentioned in part (a) above.

(06 Marks)

- ii. Briefly explain the suitable technique to procure the resources/services of each of the following scenario.

	Project	Item/service	Significance of the item/service towards the project
1.	Construction of 100 stories building	Cement	One of the main raw materials
2.	Organize a research conference	Conquer papers	Stationary item to print certificates
3.	Installation of a solar panel in a manufacturing factory	Solar panel system	Main resource required
4.	Construction of a bridge (500m) in a main city	Provide a sub contract to construct the first 250m of the bridge	50% of the main project

(08 Marks)

(Total 20 marks)

4. i. State two (02) circumstances of a project closure.

(02 Marks)

ii. Information relates to a data analysis project is given in the following.

Task ID	Name	Start date	End date	Budgeted cost (Rs.)	Actual cost (Rs.)
001	Set up database	20 June 2022	30 June 2022	100,000	45,000
002	Analyze and communicate the summary of findings	27 June 2022	02 July 2022	150,000	20,000

Assume today is 24th June 2022. The planned percentage (until 24th June 2022) is 30% based on the start and end dates.

After discussions with the responsible project team members and based on the inspection of the progress, it is determined that the task ID 001 is 20% completed and task ID 002 is 10% completed.

Assume that you are the Project Manager and it is required to produce a weekly project update to the Chief Technology Officer (CTO). Accordingly, compute the following measures to present to the CTO.

- a. Budgeted Cost of Worked Performed (BCWP) (02 Marks)
- b. Budgeted Cost of Worked Scheduled (BCWS) (02 Marks)
- c. Actual Cost of Work Performed (ACWP) (02 Marks)
- d. Schedule Variance (03 Marks)
- e. Cost Performance Index (03 Marks)

iii. Briefly explain the function of the following modules in project management software.

- a. Automatic scheduling
- b. Milestones

(03 Marks * 02 = 06 Marks)

(Total 20 marks)