

SULIT



First Semester Examination
Academic Session 2020/2021

February 2021

EUP501 – Engineering Management

Duration : 2 hours

Please check that this examination paper consists of **FIVE (5)** pages of printed material before you begin the examination.

Instructions : This paper contains **FOUR (4)** questions. Answer **ALL** questions.

Each question **MUST BE** answered on a new page.

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- (1). (a). Evaluate the functions of incorporating a theory or model in the process of organizational changes.

[7 marks]

- (b). In the change of a new work procedure due to Covid-19 pandemic, by giving relevant examples, explain the internal and external factors that influenced on this matter.

[8 marks]

- (c). In order to facilitate the process of change management in an organisation, describe the roles of an action-based research?

[10 marks]

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(2). (a). Discuss in brief the basic purpose and objectives of strategic management.

[5 marks]

(b). Describe the reasons why the public sector has been slow in adopting strategic management process compared to the private sector.

[5 marks]

(c). Describe with examples the strategies which can adopted below;

- (i). Strategic alliance
- (ii). Joint venture
- (iii). Stability strategy
- (iv). Integration
- (v). Corporate restructuring

[15 marks]

- (3). Most of the mega building and infrastructure projects around the world have experienced time and cost overrun in construction. Based on your opinion:
- (i). Identify attributes or factors that have great potentials for dictating the occurrences of these risks during construction of any building or infrastructure projects.
[6 marks]
 - (ii). Analyse the probability occurrence and impact of all the risk attributes/factors that have been identified above by using qualitative analysis.
[6 marks]
 - (iii). Select the most suitable mitigation strategies that would be able to minimise if not totally eliminating all the risk attributes/factors as addressed above.
[6 marks]
 - (iv). Develop a risk register to portray all the results that have been achieved in (i), (ii) and (iii).
[7 marks]
- (4). (a). Process improvement involves the business practice of identifying, analyzing and improving existing engineering processes to optimize performance, meet best practice standards or simply improve quality and the user experience for customers and end-users.

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Process improvement can have several different names such as process re-engineering. Regardless of the nomenclature, they all pursue the same goal to minimize errors, reduce waste, improve productivity and streamline efficiency. Describe in details how to approach the reengineering process.

[12 marks]

- (b). There are several different methodologies designed to help your organization tackle process improvement. Despite that common goal, each methodology suits a different need. Some frameworks focus on lean process improvement techniques; others focus on getting your company culture in the right place for process improvement. There are also reengineering methodologies, you were asked by the companies to visually map out process workflows for reengineering. Develop the process workflows for reengineering.

[13 marks]

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