



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER II
SESSION 2020/2021**

COURSE NAME : CONSTRUCTION PROCUREMENT
MANAGEMENT

COURSE CODE : MPC 12103

PROGRAMME CODE : MPC

EXAMINATION DATE : JULY 2021

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS
OPEN BOOK EXAMINATION

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1 Construction 4.0 Strategic Plan 2021-2025 is a five-year strategic plan to promote the use of emerging technologies to boost efficiency and the ease of doing business. The plan is a guide for government agencies, industry players, and academia to respond to the rapid technological developments and identify the best approaches to using them for the betterment of the industry and nation. This will then propel Malaysia as one of Southeast Asia's leading countries in implementing construction 4.0 technologies.

The four strategic thrusts of CR4.0 are capacity development, excellence in research, innovation, commercialisation and entrepreneurship, smart integrated technologies, innovation and infrastructure, enhanced business environment. Four strategic thrusts are supported by nine strategic objectives that comprise specific areas of focus to drive digital transformation in the industry. That said, the initiatives and programs outlined in the strategic plan can only be successful through the four enablers, namely people in which having the right people with the right skill sets is critical to achieve transformation. Secondly, integration of technology whereby the adoption of new technology will enhance the career opportunities for the local workforce and reduce dependency on unskilled foreign labour. As such, a programme must be put in place to ensure that the local GE workforce in the construction industry are trained in the utilization of new technologies. Additionally, technologies can no longer be applied in a silo as the digital solutions applied must be able to talk to each other and converge for optimisation and to support project implementation holistically. Thirdly, a strong government support is key in ensuring the success of the construction 4.0 strategic plan. New policies and regulations need to be put in place and reviewed regularly. Lastly, the economy through the adoption of digital technology is essential in improving business climates and ultimately, attract investments that will drive the country's economy to greater heights. Construction industry players will do well to take advantage of the available programmes to enhance adoption of the digital technologies in the workplaces.

(Source: HEIGHT, CIDB (2021))

Propose **FIVE (5)** criteria of contractor in selection process particularly for traditional procurement system based on the above mentioned scenario.

(25 marks)

Q2 Design and Build (D&B) is one of the popular procurement methods used in many countries. The method is first recorded used in the late 1960 in the USA. Since then, the use of the method keeps increasing in the construction industry. In the Malaysian construction industry, the D&B is used in most public projects. The popularity of the method used in public projects is mainly contributed by the benefits or advantages that the client can gain from implementing the method in the projects. Most practitioners in the related industry claimed that the D&B is comprehensive project delivery.

Outline the benefits of Design and Build (D&B) for the client in establishing the public projects.

(25 marks)

Q3 Public-Private Partnerships an Imperative for Asean Green Efforts

Monday, April 5, 2021

The PPP approach to support sustainable development will be an attractive proposition to a private company as it strikes a balance between the betterment of the environment it operates in, while also making financial sense for accountability to their stakeholders.

On this front, we are witnessing an encouraging development between The Asian Development Bank (ADB) and Japan's Ministry of Economy, Trade, and Industry (METI). In November 2020, ADB and METI signed a memorandum of cooperation to strengthen cooperation between the two organisations under the Cleaner Energy Future Initiative for ASEAN (CEFIA). CEFIA facilitates the collaboration of the public and private sectors in accelerating the deployment of sustainable energy and low-carbon technology in the region. The memorandum of cooperation serves as a good indication of commitment to PPP to narrow the funding gap for energy development in ASEAN and contribute to sustainability goals while keeping the balance of their financial considerations. Such investments will also bring about tangible benefits like jobs and sustainable environments. As such, not only do PPPs serve as a funding mechanism, it could also be a good model for companies to be a stabilising force for their communities in these uncertain times now.

The nature of PPP is advantageous in ensuring that the involved stakeholders are fully aligned and committed to sustainability developments, and bring along financial and non-financial capabilities. A most recent PPP case involving Malaysia's municipal waste-to-energy where benefits are realised from waste management and green energy production for the area. This project in Malaysia is the second of six proposed waste-to-energy projects proposed by the Malaysian government and the country launched the tender for its second waste-to-energy PPP project to seek a strategic partner that has the relevant competencies and can ensure sustainable operations.

This example in Malaysia sets the tone for a greater need to deploy PPP models in spearheading green energy growth, smart city development, and other sustainable efforts in ASEAN. Not only does this enable governments to utilise public funds more efficiently, it could also help mitigate the economic effects of future public health issues akin to COVID-19 without increasing the risk of financial distress coming from mounting debt levels. This bodes well in making PPP a model of success for infrastructure development in ASEAN countries.

PPPs have grown in importance over the years and COVID-19 has inevitably put them in the spotlight as a solution for countries that aim to meet their sustainability goals while recovering from the pandemic's impact. The bottom line is that governments and companies across ASEAN need to ensure PPPs remain a priority and that they ramp up stakeholders' engagement to explore relevant opportunities that can benefit all parties.

(Source: <https://www.businesstimes.com.sg/asean-business>)

Analyse **FIVE (5)** principles of Public-Private Partnership (PPP) about its' suitability to support green development in the Malaysian construction industry based on the news above.

(25 marks)

Q4 A joint venture (JV) is a commercial alliance between two or more separate entities that offer a unique opportunity to combine the distinctive competencies, increase the capacity of advantages, and the complementary resources to participating firms. Construction joint ventures (CJVs) have nowadays become more popular because of their importance as a strategic alternative in global competition and its vast advantages to the concerned entities. In CJVs, two or more independent partners ally to achieve their goals. All the terms and conditions of the alliance are pre-agreed between the parties, something that stipulates the conditions of partnership including work distribution, profit sharing, resource contribution, and conflict resolution. For multinational and international projects, the alliance is made between local and foreign teams. This type of association is termed as international construction joint venture (ICJV). It is extensively used to improve the capacities of partners and the competitiveness of the CJVs.

JVs possess a lot of advantages, but they also offer a high level of uncertainty. Despite the benefits associated with the international joint ventures (IJVs), the failure rate is high, higher than those of the domestic JVs because IJVs generally face greater challenges.

(Source: Akhund et al., 2018)

Justify **FIVE (5)** risks of international construction joint venture (ICJV) based on the above statement.

(25 marks)

-END OF QUESTIONS-