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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : ROAD SAFETY ENGINEERING
COURSE CODE : BFT40603
PROGRAMME CODE : BFF
EXAMINATION DATE : JUNE/JULY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

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

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- Q1** (a) **FIGURE Q1(a)** shows the Speed limit in Malaysia. Discuss the terms speed limit and design speed. (6 marks)
- (b) Briefly explain Speed, Posted Speed, Speed Limit and Time Mean Speed. (8 marks)
- (c) Please list the main variable in the traffic stream. (6 marks)
- Q2** (a) Human factor is the main contribution in road accident. The cause of accident might come from a driver. List **THREE (3)** errors commonly made by drivers. (6 marks)
- (b) Road Safety Plan of Malaysia 2014-2020 has been formulated in collaboration with Road Transport Department (RTD), Royal Malaysia Police (RMP), Ministry of Health (MOH), Public Works Department (PWD) and other road safety related government agencies as well as private sector entities and Non-Governmental Organizations (NGO). The approach in the formulation of Road Safety Plan of Malaysia 2014-2020 and its implementation is guided by the Global Decade of Action which emphasized on the need for road safety programs to be outcome based. Road Safety Plan of Malaysia 2014-2020 will emphasize on outcomes and interventions. Please state all **FOUR (4)** formulations of Road Safety Plan of Malaysia 2014-2020. (4 marks)
- (c) State and briefly explain all **FIVE (5)** strategic pillars in Road Safety Plan Malaysia 2014-2020. (10 marks)
- Q3** (a) Briefly explain **THREE (3)** main factors that contribute to road accident and list them accordingly to their priority. (3 marks)
- (b) Environment factor is one of the main contributing factors of road accident occurrence and typically being catered by a Civil Engineer. Explain **THREE (3)** elements in environment factor. (3 marks)
- (c) Describe blackspot area by Highway Planning Unit. (8 marks)
- (d) Explain the blackspot rating by Highway Planning Unit. (6 marks)

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- Q4** In Road Safety Plan Malaysia 2014-2020 under 2nd Strategy Pillar was Road Safety Audit (RSA). Road Safety Audit (RSA) is a relatively new road engineering technique aimed at identifying potential safety problems during the planning and designing of projects. If applied to existing roads, RSA can identify potential safety hazards along roads before they become accident prone locations. RSA would cover all roads in the country.
- (i) Please state the **STAGES** in Road Safety Audit that have been using in Malaysia.
(5 marks)
- (ii) As a developing country, Malaysia is still upgrading the level of transportation especially road network. To achieve that Malaysia will upgrade and build a new road based on the requirement. As a traffic engineer what you should do if the alignment road that you will construct are mix within new and upgrading existing road. Describe RSA stages involved in your construction and explain each one of the stages.
(15 marks)
- Q5** (a) As a Traffic engineer dealing with Road Safety Engineering , you need to have various evaluation techniques. State and briefly explain the Evaluation Techniques for Road Safety Engineering.
(6 marks)
- (b) Road accidents are no laughing matter. Some 300,000 cases have been reported in Malaysia, causing over 6,000 fatalities a year. The Malaysian road safety community is serious about keeping down the accident rates. As an engineering students, explain the main factor to realize the Malaysia Road Safety Plan.
(4 marks)
- (c) The site visit is a very important element of any accident investigation. Explain the main purpose of preliminary visit.
(4 marks)
- (f) Briefly explain the meanings and functions of TIA and TMP.
(6 marks)

- END OF QUESTIONS -

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FIGURE Q1(a)

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