



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

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

COURSE NAME : ROAD SAFETY ENGINEERING
COURSE CODE : BFT 40603
PROGRAMME CODE : BFF
FINAL EXAMINATION DATE : DECEMBER 2018/ JANUARY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

Q1 (a)



Signboard above shows the Speed limits in Malaysia. Discuss what is speed limit and design speed.

(6 marks)

(b) Briefly explain SPEED, POSTED SPEED, 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. Cause of an accident might come from drivers. Please list **THREE (3)** common errors 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 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 as prescribed in the Road Safety Plan of Malaysia 2014-2020.

(4 marks)

(c) State and briefly explain all **FIVE (5)** strategic pillars in the Road Safety Plan Malaysia 2014-2020.

(10 marks)

Q3 (a) Briefly explain **THREE (3)** main factors that can contribute to road accident and list them sequentially according to their priorities.

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- (b) Environmental factor is one of the main contributing factors of road accident occurrence and typically being catered by a Civil Engineer. Explain **THREE (3)** elements of environmental factor mentioned above. (3 marks)
- (c) Describe blackspot area by Highway Planning Unit. (8 marks)
- (d) Define the blackspot rating according to the Highway Planning Unit. (6 marks)

Q4 In Road Safety Plan Malaysia 2014-2020 , Road Safety Audit (RSA) is specified under 2nd Strategic Pillar. 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 list the **STAGES** in Road Safety Audit being practised in Malaysia. (5 marks)
- (ii) As a developing country, Malaysia is still upgrading the level of transportation especially road networks. To achieve that Malaysia will upgrade and build a new road as needed. As a traffic engineer what you should do if the alignment of roads that you construct are combination of new and upgrading existing roads. Describe RSA stages that should be involved in your construction and explain each one of the stages. (15 marks)

- Q5** (a) As Traffic engineers dealing with Road Safety Engineering, we 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 are reported in Malaysia, causing over 6,000 fatalities a year. The Malaysian road safety community is serious about keeping down the accident rates. As engineering students, explain the main factors to realize the Malaysia Road Safety Plan. (4 marks)
- (c) Site visit is a very important element of any accident investigation. Explain the main purpose of conducting preliminary visit. (4 marks)
- (d) Briefly explain the meanings and functions of TIA and TMP. (6 marks)

- END OF QUESTIONS

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