

SULIT

UNIVERSITI MALAYSIA PERLIS

Peperiksaan Pertengahan Semester Kedua
Sidang Akademik 2017/2018

4 April 2018

ENT101 – Test Run TeXstudio and finalxm.sty
[Ujian Menjalankan TeXstudio dan finalxm.sty]

Masa: 3 Jam

Please make sure that this question paper has **THREE (3)** printed pages including this front page before you start the examination.

*[Sila pastikan kertas soalan ini mengandungi **TIGA (3)** muka surat yang bercetak termasuk muka hadapan sebelum anda memulakan peperiksaan ini.]*

This question paper has **TWO (2)** questions. Answer **all** questions. Each question contributes 25 marks.

*[Kertas soalan ini mengandungi **DUA (2)** soalan. Jawab **semua** soalan. Setiap soalan menyumbang 25 markah.]*

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Question 1*[Soalan 1]*

(a) Explanation on Tables. Refer to Table 1

*[Penjelasan mengenai Jadual. Rujuk Jadual 1.]***Table 1***[Jadual 1]*

Frequency	Impedance (Magnitude) (Ω)
5 Hz	20,000
10 Hz	19,998
\vdots	\vdots
40 kHz	602
50 kHz	600
100 kHz	600

(4 Marks /Markah)

(i) anak1

[anak1]

(2 Marks /Markah)

(A) aanak2

[aanak2]

(2 Marks /Markah)

Question 2*[Soalan 2]*(a) Prove that the differential gain, A_d and common-mode gain, A_{cm} of the INA are,*[Buktikan bahawa gandaan kebezaan, A_d dan gandaan ragam sepunya, A_{cm} bagi INA adalah,]*

$$A_d = \frac{1}{2} \left[\frac{R_2}{R_1} \left(\frac{1 + \frac{R_4}{R_3}}{1 + \frac{R_2}{R_1}} \right) + \frac{R_4}{R_3} \right]$$

$$A_{cm} = \left[\frac{R_2}{R_1} \left(\frac{1 + \frac{R_4}{R_3}}{1 + \frac{R_2}{R_1}} \right) - \frac{R_4}{R_3} \right]$$

(8 Marks /Markah)

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