CVEN4002

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9b[ ]bYYf]b[ ]bXi ghf]U` HfU]b]b[ – ]bXi ghf]U` hfU]b]b[ei Ygh]cbg

I BGK Gh Xm 5VcUX – ghi XmUVfcUX ghi XYbhYbei]f]Yg fZcf]bVci bX ghi XYbhgŁ

I BGK 9l WXUb[Y – ghi XYbhYl WXUb[Y ei]f]Yg fZcf]bVci bX ghi XYbhgŁ

I BGK : i hi fY Gh XYbhg – dchYbh]U` ghi XYbhYei]f]Yg Y"[UXa]gg]cbgž YYgž dfc[fUa gž WfYX]h hfUbgZYf

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f Z *%&Ł -' ,) ` ,) $$ – Bi WYi g Gh XYbh < i V

f Z *%&Ł -' ,) +* * %– 9b[ ]bYYf]b[ ]bXi ghf]U` HfU]b]b[

f Z *%&Ł -' ,) " %+- – I BGK Gh Xm 5VcUX UbX I BGK 9l WXUb[Y fZcf]bVci bX ghi XYbhgŁ

7ci fgY`8YhU]`g

7fYX]h`Dc]bhg`*`

Gi a a UfmcZh\Y`7ci fgY

@YUfb]b[CihWca Y	95 GhU[Y %7ca dYhYbW]Yg
("8YjY`cd g_]`g Zcf`Wc``UVcfUh]jY UbX a i`h]!X]gW]d`]bUfm kcf_UbX fYgYUfW\	D9' " žD9' "*
)" 5V]`]hm hc Yb[U[Y ]bXYdYbXYbh UbX fYZ`YWh]jY `YUfb]b[	D9%"&žD9&"&žD9&""

HYUW\]b[GhfUhY[]Yg

H\Y a U]b U`a cZ h\Y Wci fgY`g hc`[]jY mci h\Y cddcfhi b]hm Zcf gY`Z!X]fYWhYX `YUfb]b[" Mci bYYX hc a U_Y XYW]g]cbg cb mci f XYg][b UXU UbX a YhcXc`c[m" H\Y Wci fgY]bjc`jYg cbY U`cf dfc^YWh k]h\ U fUb[Y cZ XYg][b hUg_g" 5 (!\ci f dYf]cX]g U`cWUhYX dYf kYY_ hc h\Y Wci fgY" Hk c \ci fg]g Wca a cb hc U``ghi XYbhg Zcf`YWhi fYg UbX &\ci fg Zcf kcf_g\cdg" 8i f]b[ h\Y &\ci fg kcf_g\cdžghi XYbhg k]``kcf_cb h\Y dfc^YWh i bXYf h\Y[i]XUbW cZ h\Y XYa cbghfUhcfg"

Ghi XYbhg k]``kcf_]b[fci dg cZ " H\Y HYUW\]b[ ghfUhY[]Yg h\Uhk]``VY i gYX]bW`i XY.

Df]jUhY Ghi Xm

- F Yj]Yk `YWhi fY a UhYf]U`g UbX hYl hVcc_
- I bXYfghUbX h\Y XYg][b dfcWigg
- 7cbXi Wh fYgYUfW\ cb h\Y hcd]W
- >c]b A ccX`Y X]gWi gg]cbg cZ dfcV`Ya g

- Ghi Xm fY`Yj Ubh gci fWig UbX fYZfYbWg

@YWhi fg
- 5hhYbX h\Y `YWhi fg hc _YYd mci fgY`Z i dXUhYX cb h\Y hYUW\]b[a UhYf]U`g
- 8]gWi gg mci f ei Yf]Yg k]h\ h\Y `YWhi fYfg
- <YUf Ubbci bWa Ybhg cb Wci fgY X\Ub[Yg

K cf_g\cdg
- GY`ZX]fYWhYX `YUfb]b[UbX gc`j]b[ h\Y dfcV`Ya g
- A YYh k]h\ [fci d a Ya VYfg UbX XYjY`cd ghfUhY[]Yg
- 6Y`[i]XYX Vm XYa cbghfUhcfg
- K cf_cb XYg][b dfcV`Ya g
- 5g_ ei Ygh]cbg

5ggYgga Ybh
- 8Ya cbghfUhY mci f_bck `YX[Y UbX g_]``g
- 8Ya cbghfUhY \][\Yf i bXYfghUbX]b[UbX dfcV`Ya gc`j]b[
- 8Ya cbghfUhY i bXYfghUbX]b[cZ WbWYdh X\Yg][b UbX dfcj]XY cUa d`Y XYg][b gc`i h]cbg

5ggYgga Ybh

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9j U`i UhY Gi V[fUXY GhfYb[h\

5ggYgga Ybh & GYWcbX F Ydcfh

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8Yg][b fUZ[W/ 8Yg][b [fUbi `Uf dUj Ya Ybh k ]h\ h\]b Ugd\U`h gi fZUW]b[

5ggYgga Ybh ' ±bX]j]Xi U `8Yg][b#F YgYUfW\ F Ydcfh

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! 8Yg][b dUj Ya Ybh Zcf h\Y dcfh UWWYgg fcUX

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F Ygci fWYg

DfYgWf]VYX F Ygci fWYg

A ccX`Y.

A UhYf]U`g ]bW`i X]b[`WUgg UbX XYa cbghfUh]cb `]b_gž YVhi fY `bchYgž dfc YWh XYg]Wf]dh]cbž Z]Y`X UbX `UVcfUhcfm hYghXUhUž UbX frUZZ]WXUhU `k ``VY dfcj]XYX h\fci [\ A ccX`Y"

F YZYfYbWYg.

!`5i ghfcUXg.`; i]XY `hc DUj Ya YbhHYW\bc`c[m DUfh&.`DUj Ya Ybh Ghfi W\fU``8 Yg][b

!`; i ]XY `hc `bXi ghf]U``: `ccfg UbX DUj Ybhg !`8 Yg][bž 7 cbghfi Wh]cb UbX GdYWZ]WUh]cbž 7 Ya Ybh 7 cbWfYhY UbX 5 [[fY[UhYg 5i ghfU`]U

!`5i ghfU`]Ub Ghi UbXUfX ž cf Ghfi Wh fU``8 Yg][b 5Wh]cbg !`DUfh $.`; YbYfU`Df]bW]d`Yg — 5G%%+$"$

!`5i ghfU`]Ub Ghi UbXUfX ž cf Ghfi Wh fU``8 Yg][b 5Wh]cbg !`DUfh %`DYfa UbYbhž a dcgYX UbX Ch\Yf 5Wh]cbg — 5G%%+$"%

!`5i ghfU`]Ub Ghi UbXUfX ž cf Ghfi Wh fU``8 Yg][b 5Wh]cbg !`DUfh&. K]bX 5Wh]cbg — 5G%%+$"&

!`5i ghfU`]Ub Ghi UbXUfX ž cf GhYY``Ghfi Wh fYg — 5G(%$$

F YWca a YbXYX F Ygci fWYg

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!`< UbXVcc_ `8 Yg][b cZ ghfi Wh fU``ghYY``WcbbYWh]cbgž 5i ghfU`]Ub GhYY``+bgh]h hYžH" >"< c[Ub Z `G"`5`A i bhYf"

!`8 Yg][b cZ dcfhU``ZfUa Y Vi]`X]b[ g ]bW`i X]b[`WfUbY `fi bk UmVYUa g UbX `a cbcfU]`gž K cc`WcW_žG"H"ž ?]h]dcfbW\U]žG"ž 6fUXZcfXžM "5"`UbX `< UXXUXž. ;"5

!`6ck `Ygž>"9"`: ci bXUh]cb 5bU`mg]g UbX 8 Yg][bž A W fUk !<]`

7ci fgY `9j U`i Uh]cb UbX 8Yj Y`cda Ybh

H\Y `Wci fgY `]g fYj]Yk YX Ubbi U`mh\fci [ \ h\Y a m9I dYf]YbWY `gi fj Ym`5``fYgdcbgYg UfY `Wcbg]XYfYX UbX k Y`a U_Y `W\Ub[ Yg `hc `h\Y `Wci fgY Ubbi U`mb fYgdcbgY"`K Y `UfY `U`gc `Uk Umg \Uddmhc `[ YhZYYXVUW_ `Xi f]b[`h\Y `Wci fgY `Zcf `]a a YX]UhY `cbg]XYfUh]cb"

5WUXYa]W< cbYghmiUbX`U[ ]Uf]ga

6Yk UfY`¨5b`Ugg][ba Ybhïh\Uhï]bWï XYg`d`U[ ]Uf]gYX`a UhYf]U`¨k]``fYWU]j Y`U`$ı ¨: U]`ž`UbX`ghi XYbhg`k \c d`U[ ]Uf]gY`a UmïZU]`¨h\Y`Wci fgY"¨Ghi XYbhg`k \c`d`U[ ]Uf]gY`UfY`U`gc¨]UV`Y`hc`X]gW]d`]bUfmïUWħcbž]bWi X]b[Yl Wi g]cb¨Zca `Ybfc`a Ybh¨

D`U[ ]Uf]ga `]g`h\Y`i gY`cZUbch\Yf`dYfgcb'g`k cf_¨cf¨]XYUg`Ug`]Zh\Ymïk YfY`mci f¨ck b"¨K \Yb¨]h]g`bYWUggUfmïcf XYg]fUV`Y`hc¨i gY`ch\Yf`dYcd`Y'g¨a UhYf]U`¨mci ¨g\ci ¨X¨UXYei UhY`mïUW_bck `YX[ Y`k \cgY`k cfXg¨cf¨]XYUg`h\Ym UfY`UbX`k \YfY`mci ¨Zci bX¨h\Ya ¨f[ ]j ]b[ ¨h\Y`Wca d`YhY¨fYZYfYbWY¨XYhU]]`gž]bWi X]b[¨dU[Y¨bi a VYffü± "¨H\Y @YUfb]b[`7YbhfY`dfcj]XYg¨Z i fh\Yf¨]bZcfa Uh]cb¨cb¨k \UhWcbgħ]hi hYg`D`U[ ]Uf]ga `Uh

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! Y[" 7Ybgi g 8UhYž YI Ua XUhYgž UghXUmhc Xfcd U Wci fgY k]h ci h UWUXYa]W#bUbWU]UV]]hmYhW

:]bU 9I Ua]bUh]cbg.

:]bU YI Ua g]b HYfa %k] VY \Y X cb]bY VYh YYb " $h 5df] ! % h A Um]bWi g]j Y" Mci UfY fYei]fYX hc VY Uj U UV Y cb h YgY XUhYg" D YUgY Xc bch hc a U_Y Ubm dYfgcbU cf h Uj Y UffUb[Ya Ybhg Xi f]b[h]g dYf]cX"

Gi dd Ya YbhUfm 9I Ua]bUh]cbg.

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Appendix I: Engineers Australia (EA) Professional Engineer Competency Standard

Program Intended Learning Outcomes	
Knowledge and skills base	
PE1.1 Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline	
PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline	