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MTH202 Assignment 01

Question 01

Formulate the argument symbolically and test its validity using the truth table. Also mention the critical row (or rows).

If you finish your home work, then you will sleep early.

If you will sleep early, then you will get up for 8:30am class.

Therefore if you finish your home work, then you will get up for 8:30am class.

Where p = you finish your home work,

q = you will sleep early,

r = you will get up for 8:30am class.

Solution:

$P \rightarrow q$

$Q \rightarrow r$

$P \wedge r$

P	Q	R	$P \rightarrow q$	$Q \rightarrow r$	$P \wedge r$
T	T	T	T	T	T
T	T	F	T	F	F
T	F	T	F	T	T
T	F	F	F	T	F
F	T	T	T	T	F
F	T	F	T	F	F
F	F	T	T	T	F

F	F	F	T	T	F
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Critical Rows

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Question 02

Construct circuit for Boolean expression (Mention output at each step)

$$(P \wedge \sim Q) \vee (P \wedge Q)$$

Solution:

