

**University of Mumbai**  
**Examination 2020 under cluster PCOE (Lead College Short name)**

Program: Chemical Engineering  
 Curriculum Scheme: Rev2016  
 Examination: Third Semester III  
 Course Code: CHC304 and Course Name: CET-I

Time: 1 hour

Max. Marks: 50

For the students:- All the Questions are compulsory and carry equal marks .

Q1.	Minimum work that could be obtained by expanding the gas over a given pressure range is the _____ work.
Option A:	isothermal
Option B:	adiabatic
Option C:	isentropic
Option D:	isochoric
Q2.	Which of the following is not true?
Option A:	for an isolated system, $dS \geq 0$
Option B:	for an irreversible process, $dS > 0$
Option C:	for a reversible process, $dS = 0$
Option D:	for an isolated system, $dS \leq 0$
Q3.	Which is not constant for an ideal gas ?
Option A:	$\left(\frac{\partial P}{\partial V}\right)_T$
Option B:	$\left(\frac{\partial V}{\partial T}\right)_P$
Option C:	$\left(\frac{\partial P}{\partial V}\right)_V$
Option D:	All $\left(\frac{\partial P}{\partial V}\right)_T$ , $\left(\frac{\partial V}{\partial T}\right)_P$ and $\left(\frac{\partial P}{\partial V}\right)_V$
Q4.	For a non ideal gas fugacity coefficient could be equal to
Option A:	zero
Option B:	infinity
Option C:	Less than one
Option D:	More than ten
Q5.	Which of the following is not a Maxwell equation?
Option A:	$(\partial T / \partial V) = -(\partial p / \partial S)$
Option B:	$(\partial T / \partial p) = -(\partial V / \partial S)$
Option C:	$(\partial p / \partial T) = (\partial S / \partial V)$
Option D:	$(\partial V / \partial T) = -(\partial S / \partial p)$
Q6.	
Option A:	

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Option B:	
Option C:	
Option D:	
Q7.	
Option A:	
Option B:	
Option C:	
Option D:	
Q8.	
Option A:	
Option B:	
Option C:	
Option D:	
Q9.	
Option A:	
Option B:	
Option C:	
Option D:	
Q10.	
Option A:	
Option B:	
Option C:	
Option D:	
Q11.	
Option A:	
Option B:	
Option C:	
Option D:	
Q12.	
Option A:	
Option B:	
Option C:	
Option D:	
Q13.	
Option A:	
Option B:	
Option C:	
Option D:	
Q14.	
Option A:	

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Option B:	
Option C:	
Option D:	
Q15.	
Option A:	
Option B:	
Option C:	
Option D:	
Q16.	
Option A:	
Option B:	
Option C:	
Option D:	
Q17.	
Option A:	
Option B:	
Option C:	
Option D:	
Q18.	
Option A:	
Option B:	
Option C:	
Option D:	
Q19.	
Option A:	
Option B:	
Option C:	
Option D:	
Q20.	
Option A:	
Option B:	
Option C:	
Option D:	
Q21.	
Option A:	
Option B:	
Option C:	
Option D:	
Q22.	
Option A:	

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Option B:	
Option C:	
Option D:	
Q23.	
Option A:	
Option B:	
Option C:	
Option D:	
Q24.	
Option A:	
Option B:	
Option C:	
Option D:	
Q25.	
Option A:	
Option B:	
Option C:	
Option D:	