



Physical_Chemistry_2nd_YUGS_EV_ST

Hand P Quiz
1.5/5

30/100
Thirty only

Name of a student بدور حكيم دروي Signature [Signature] No. 9

Mustansiriyah University
Department of Chemistry

2nd SEM-2025_Bologna_Process
Mid_Exam_Class_B_Paper_B

01/ MCO test (Answer the following)

(Marks 50 %)

Q 25/50

1: If the relation between the amount of solute and the Π is proportional, then the right equation is?
Answer: a) $\Pi \propto VP$ b) $\Pi \propto BP$ c) $\Pi \propto V$ **d) $\Pi \propto [B]$**

2: If the deposition is dominated, then one of the following will be true.
Answer: a) $\Delta_{vap}H = +ve$ **b) $\Delta_{vap}H = -ve$** c) $\Delta_{sub}H = +ve$ d) $\Delta_{sub}H = -ve$

3: How many phases are there when the number of variants is one and the number of components is one?
Answer: a) zero b) 1 **c) 2** d) 3

4: Which One of the following formulas represents the right equation of positive deviation from Raoult's law?
Answer: a) $P_A^* \neq \chi_A P_A$ b) $P_A = \chi_A P_A^*$ **c) $P_A > \chi_A P_A^*$** d) $P_A < \chi_A P_A^*$

5: Addition of a non-volatile solute to the pure solvent causes a change in?
Answer: a) $\Delta_{mix}H$ **b) $\Delta_{mix}S$** c) $\Delta_{mix}V$ d) all of these

6: How many p and F of CO_2 when it is positioned at the boundary of the phase?
Answer: a) $p = 2$ & $F = 1$ b) $p = 3$ & $F = 0$ **c) $p = 1$ & $F = 2$** d) $p = 2$ & $F = 2$

7: Liquid water and ice are formed from?
Answer: a) 1 C **b) 2 C** c) 3 C d) 4 C

8: With the two-component system (Pb & Ag), one part of the solid phase consists of?
Answer: a) pb + Ag **b) Pb + solution** c) Ag + solution d) Pb + eutectic

9: If you add a non-polar solute to a non-polar solvent, then the expected type of mixture will be ----- law.
Answer: a) Van't Hoff's **b) Raoult's** c) -ve form Raoult's d) +ve form Raoult's

10: If it is required to calculate the Y_A , then one of the following laws will be applicable?
Answer: a) Raoult b) Henry c) Dalton **d) Van't Hoff**

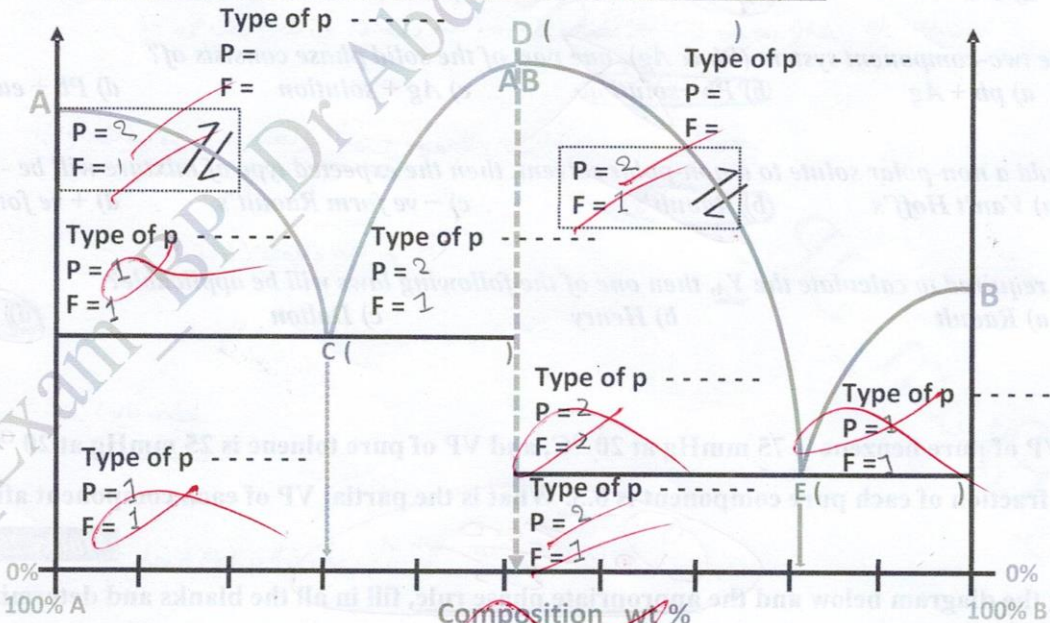
02: The VP of pure benzene is 75 mmHg at 20 °C, and VP of pure toluene is 25 mmHg at 20 °C. The mole fraction of each pure component is 0.5. What is the partial VP of each component after mixing?
(Marks 25%)

03: Using the diagram below and the appropriate phase rule, fill in all the blanks and determine the composition of the all-eutectic mixture, all equilibria, all reversible and irreversible processes, and the name of the regions located to the right and left of points C, E & AB?
(Marks 25%)



Name of a student _____ Signature _____ No. _____

Two component system ()



$(F = C + 2 - P)$