NOUN

NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF PEACE STUDIES AND CONFLICT RESOLUTION

2023_2 EXAMINATIONS_

COURSE CODE: PCR771

COURSE TITLE: Third Party Intervention & Conflict Resolution

CREDIT UNIT: 3

TIME ALLOWED: 3 Hours

INSTRUCTION: Answer any 4 questions

1. Attempt the following theories of Conflict
   (a) Realist Theories
   (b) Structural Theories
   (c) Biological Theories
   (d) Economic Theories (17.5 marks)

2. In what ways can you establish the linkages between Theory and Practical challenges (17.5 marks)

3. Briefly account for the development of Multi-Door Court Houses in Nigeria. (17.5 marks)

4. Explain the following variables for reconciling interest and conflicts (17.5 marks) (a) Order (b) Reconciliatory Attitudes (c) Consensus

5. Identify and describe operational modality that occur at three levels of neutrality (17.5 marks)

6. Describe the sterling personal attributes of a third party intervenor (17.5 marks)

c) What are two allotropic form of sulphur and which one exist at low temperature. (2Marks)

5a) Derive an expression for isothermal reversible process and state the conditions of W (3Marks)

b) An ideal gas initially at 3.00×10^2 K and 3.00×10^5 Pa pressure occupies 0.831 m^3 space. What is the minimum amount of work required to compress the gas isothermally and reversibly so that the final pressure is 6.00×10^6 Pa?

$p_1 = 3.00 \times 10^5$ Pa; $p_2 = 6.00 \times 10^6$ Pa

$R = 8.314$ J mol k^{-1}; $T = 3.00 \times 10^2$ K (5Marks)

c) Briefly discuss the entropy change of a system undergoing isothermal Irreversible Expansion and Reversible Compression (5Marks)

6a) Derive a Helmholtz equation to show that the change in Helmholtz; free energy is equal to the amount of reversible work done on the system. (5Marks)

b) For the reaction,

$2NO\ (g) + O_2\ (g) \rightarrow 2NO_2\ (g)$

Calculate ΔG at 7.00×10^2 K. The entropy and enthalpy changes at 7.00×10^2 K are respectively, -1.45×10^2 J Mol^{-1} K^{-1} and -1.13×10^2 kJ Mol^{-1}. (4Marks)

c) Derive this relation: $(\frac{\partial A}{\partial T})_V = -S$ at constant volume (3Marks)

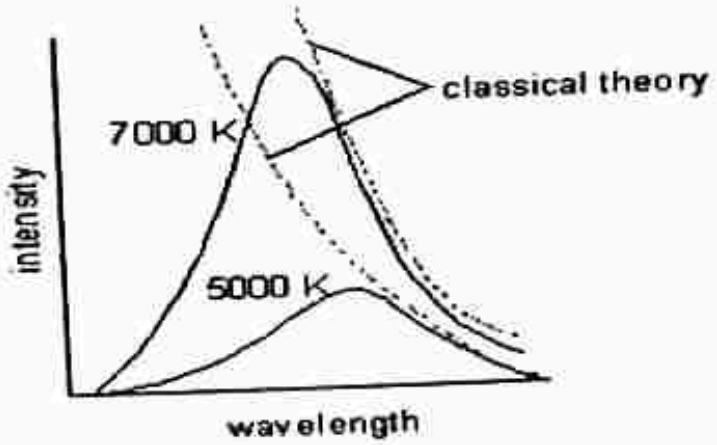
Total = 15 mks

QUESTION FIVE

5(a)(i) What is black body ? (1 marks)

(ii) Is it possible to construct a perfect black body ? Explain the working principle of existing black body (3 marks)

(iii) Outline three conclusions that can be draw from the following diagram (4 marks)



(iii) Present classical physics concept of the above diagram. Hence outlined Max Planck proposal on black body (7 marks)