

CHEMISTRY-11	Chapter#11-First Half (11.0 – 11.3) Test-4		
	Name:	Class:	ID:
Date: / /	Marks Total: 30	Marks Obtained:	
Time Allowed: 50 Min.			

Maximum Marks: 10

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- The rate of reaction determined at any given time is called:
 - Average rate
 - Instantaneous rate
 - Spontaneous rate
 - Overall rate
- The decomposition of nitrogen pentoxide $2\text{N}_2\text{O}_5 \rightarrow 2\text{N}_2\text{O}_4 + \text{O}_2$ is an example of:
 - First order reaction
 - Second order reaction
 - Third order reaction
 - Pseudo order reaction
- Radioactive disintegration reactions are always _____ order reactions.
 - First
 - Second
 - Zero
 - Fractional
- The half-life period for the decomposition of N_2O_5 at 45°C is 24 minutes. If we start with 1 mole dm^{-3} of N_2O_5 , then after 96 minutes how much of its mass will be left?
 - 0.0625 mole
 - 0.0750 mole
 - 0.0250 mole
 - 0.0125 mole
- The half-life period of a reaction is equal to $\frac{1.5}{k_a^2}$. The order of reaction is:
 - 1
 - 2
 - 3
 - 0
- The reaction $\text{NO}_2 + \text{CO} \rightarrow \text{NO} + \text{CO}_2$ is _____ order with respect to NO_2 .
 - First
 - Second
 - Third
 - Zero
- Dilatometric method is used for measuring the rate of reactions, involving:
 - Temperature change
 - Conductivity changes
 - Pressure changes
 - Volume changes
- The reactant molecules having activation energy, will make effective collisions to form:
 - Reaction intermediate
 - Activated complex
 - Transition state
 - Both 'b' & 'c'
- Activation energy is, actually, _____ energy of the colliding molecules.
 - K.E.
 - P.E.
 - Both 'a' & 'b'
 - None
- For exothermic reaction, the E_a of reverse reaction is _____ that of forward reaction.
 - Greater than
 - Smaller than
 - Equal to
 - All

Maximum Marks: 20

(SUBJECTIVE TYPE)

Time Allowed: 40 Min.

SECTION-I

- Q.2: Give brief answers to the following questions:** (12)
- Rate of reaction is changing every moment. Explain.
 - What is specific rate constant or velocity constant?
 - Rate of reaction changes every moment but rate constant k remains the same, why?
 - What are zero order reactions? Give one example.
 - What is spectrometric method for finding the rate of chemical reaction?
 - What are the types of collisions?

SECTION-II

NOTE: Attempt All Questions:

(08)

- Q.3:** What is half life period? Explain with examples. Also write formulas to calculate the half life periods of first, second and third order reactions.
- Q.4:** Explain chemical method to determine the rate of reaction.