

INSTRUCTIONS: Attempt ALL the questions

TIME: 3 HOURS

1. What do you understand by the following words? **(20 points)**
 - 1) Metabolome –
 - 2) Non-targeted metabolomics –
 - 3) Transcriptomics. –
 - 4) Toxicogenomics. –
 - 5) Interactomics –
 - 6) Antibody -
 - 7) DNA microarray –
 - 8) Proteome –

2. Name Six applications of transcriptomics **(10 points)**

3. How does an antibody tests work? **(20 points)**

4. Discuss factors affecting the protein binding of drugs. (Three drug related and three protein related) **(25 points)**

5. State and explain SIX significances of protein and tissue binding of drugs. **(25 Points)**