

國立中山大學100學年度碩士班招生考試試題

科目：分子生物學【海資系碩士班甲組選考】

- (1) What is the replication process of prokaryote. (20%)
- (2) What is splicing procedure of eukaryotic mRNA, including the components and mechanism that are involved in? (20%)
- (3) Design a protocol to clone a gene of virus. Describe the conditions and criteria for the design. (10%)
- (4) Describe a protocol to isolate a plasmid of 6000 base pairs. (10%)
- (5) Draw the tRNA and describe its components. (10%)
- (6) What is the meaning of following terminology: (30%; 3% each)
 - (a) TATA box
 - (b) Pribnow box
 - (c) Southern blotting
 - (d) Stem-loop
 - (e) Transcription factor
 - (f) Shine-Dalgarno sequence
 - (g) Cistronic
 - (h) Super coil
 - (i) Electrophoresis
 - (j) Alpha helix