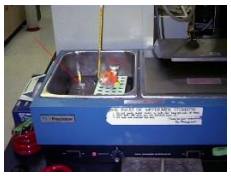
Mock test, Biology department-college of science- Salahaddin university (3rd stage)

Name:

Group:

Q1: Describe this process in molecular biology and explain its role in one laboratory technique.

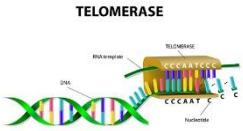


Answer: Restriction enzyme inactivation.

Q2: What is the significance of the Griffith experiment in the history of genetics?

Answer: Pivotal for understanding bacterial transformation.

Q3: In which organism is this RNA present?



Answer: Telomerase RNA is present in most eukaryotic organisms.

Q4: In a laboratory setup, you observe a pipette tip, a microcentrifuge tube, and a petri dish. Name these items and describe their specific functions in molecular biology experiments.

Answer: Pipette tip - transfer, Microcentrifuge tube - centrifugation, Petri dish - culture.

Q5: Name a commonly used type II restriction enzyme and explain how it recognizes and cleaves specific DNA sequences. Provide an example of when this enzyme is used in the lab.

Answer: EcoRI - cleaves DNA, used in cloning.

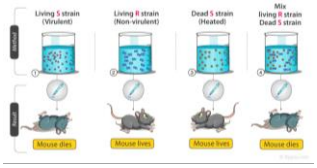
Q6: Write the full name of these abbreviations? EDTA and SDS.

Answer: EDTA - Ethylenediaminetetraacetic acid, SDS - Sodium dodecyl sulfate.

Q7: Describe the importance of the centrifuge step in DNA isolation.

Answer: Crucial for separation in DNA isolation.

Q8: What is the name of this experiment?



Answer: Griffith experiment.

Q9: Define restriction enzyme and its role in bacteria?

Answer: Endonuclease protein, protect bacteria from foreign DNA (defense mechanism).

Q10: What is the role of Buffer in digestion of DNA by a restriction enzyme?

Answer: Maintains ideal conditions for DNA digestion.

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