Name:- إجابة نموذجية لأحد الاختبارات

A- Complete the fowling gaps:- BCH 462 لمقرر

1- Mention the three different stages in the PCR experiment:-

- Denaturation
- Annealing
- Extension

2- The major two aims of using the sterilization procedures when dealing with the different bacterial cultures are:-

- Preventing any contamenant from entering to your culture.
- Preventing any germs from escaping from youre culture.

3- In the Purification process from the PCR Amplifications product an ….equal…….. volume of Membrane Binding Solution will be added to the PCR amplification product.

4- In the PCR experiment the double strands of DNA separated to be two single strands at ……95C°…… temperature.

5- The DNA bands can be visualized after running the gel agarose by using ….U.V…….. light.

6- After cooking the gel agarose mixture, the mixture should be cooled to around 50C°……degrees before adding 3µl EtBr.

7- Before running the samples in gel agarose, the gel should be sunk in a tank and then it should be covered with 1X of…T.A.E…. buffer.

8- To purify a specific segment of PCR Amplifications product the procedure will be in three steps starting from binding the DNA to SV Minicolumn followed by .washing…step and the final step is…elution…step….

9- The PCR experiment contains several repeated cycles around…30…-…40……cycles.

10- Anneals the two primers to both of the DNA single strands in the PCR experiment is happening at temperature ranging from ….50…-…60……°C depending on the ……sequance…… of each primer.

11-There are two different methods to prepare competent bacterial cells:

1- Electroporation 2- Calcium Chloride method.

B- Answer the fowling questions:-

1- What is the aim of the ligation experiment?

The aim is to ligate DNA segment to the Plasmid from the bacterial cell and this done by DNA ligase.

2- Mention the aim of the Purification of a specific DNA segment experiment?

The aim is to purify the DNA either being resulted from PCR product or fom gel agarose from other substances, and this is to have pure DNA.

3- In which step of the PCR experiment the Tag DNA polymerase add the free nucleotides to the primer? And at which temperature this happens?

In the extension step in 72 C°.

4 - What is the aim of the PCR experiment?

The aim is to amplify the DNA segment of interst.