1) Ethidium bromide is a DNA-binding dye that fluoresces when DNA in an agarose gel is illuminated with ultraviolet light

2) Which of the following techniques is the best choice for amplifying DNA?

A) Southern blot

B) microarray analysis

C) affinity chromatography

D) PCR

3)During Library screening, PCR, Southern blotting, and other techniques, binding two pieces of DNA to each other by hydrogen bonding is called

A) DNA ligation

B) autoradiography

C) hybridization

D) polyadenylation

4)which of the following techniques is most commonly used to separate and analyze DNA by size??

A) Northern blot

B) PCR

C) DNA libraries

D) agarose gel electrophoresis

5)which of the following is Not required for PCR reaction

A) A thermostable DNA polymerase

B) Dideoxy -dNTPs(ddNTPs)

C) template DNA

D) primers

6)All of the following techniques require the use of electrophoresis to separate molecules except:

A) Southern blot

B) SDS-PAGE

C) microarray

D) FISH

7)All of the following techniques can be used to study gene expression except

A) FISH

B) microarray

C) Northern blot

D) real-time PCR

8)Restriction site is an arrangement of the number, order and types of restriction enzyme cutting site in DNA molecule

9) Karyotyping is a laboratory procedure for analyzing the number and structure of chromosome in a cell

10) Primers are short oligonucleotides complementary to specific sequences of interest used in PCR reactions to amplify DNA and DNA sequencing reactions

11)write the correct order of steps:

Southern blotting

A)Filter(blot) is backed to UV light to permanently attach The DNA.

B)Gel is treated with alkaline solution to denature the DNA.

C)fragments are transferred onto anylon or nitrocellulose (called blotting)

D)DNA fragments are separated by agarose gel electrophoresis

E)Filter(blot) is incubated with a labeled probe and exposed to film autoradiography

Correct order is D,B,C,E,A