

BT 207

Questions (for classes held on 18th, 19th and 20th April)

1. Name the first transgenic animal?
2. How transgene is incorporated in ES cell?
3. What makes the onco mouse more susceptible towards developing a tumor?
4. What are the importance of transgenic animals?
5. How many protein coding genes are present in human beings?
6. What are markers (Genetic/molecular)?
7. What is RAPD? Mention steps involved for the same?
8. Is DNA polymorphic in nature? Support your answer with an example?
9. What kind and how many primers will you use if you have to go for random amplification of an entire genome?
10. RAPD requires non-specific primers. **T/F**
11. More degeneracy leads to less specificity. **T/F**?
12. How primers used in RAPD are different from primers used for PCR?
13. Under what conditions does amplification start in RAPD?
14. Which of the following statement is false?
 - Primers oriented in opposite direction, close to each other, amplification takes place.
 - Primers oriented in opposite direction, too far from each other, amplification doesn't take place.
 - Primers in same direction, oriented too close, amplification happens.
 - Primers in same direction, oriented too far, amplification does not happen.
15. When performing RAPD, what are the modifications made in thermal cycle and why?
16. How point mutation in template DNA results in lack of amplified product? Explain with help of diagram.
17. State differences between RAPD and RFLP?
18. What are the factors that result in polymorphism?
19. What is DNA probe used for in RFLP?
20. Which technique will you use to know the relationship between different individual?
21. What membrane material is used for southern blot and western blot?
22. Application of southern blotting?
23. Application of northern blotting with examples?