

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MSC/PRE-PHD
BRANCH: BIOTECH

SEMESTER : III/NA
SESSION : MO/19

SUBJECT: BT504 MOLECULAR GENETICS AND PHARMACOGENOMICS
TIME: 3 HOURS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What do you understand by the term Pharmacogenomics & Pharmacogenetics? [5]
Q.1(b) Enlist the different methods of gene analysis? Explain any one in detail. [5]
- Q.2(a) What are SNPs? Distinguish their usefulness based on frequency. [5]
Q.2(b) Explain Candidate gene studies. [5]
- Q.3(a) What is meant by Rational Drug Design? [5]
Q.3(b) Discuss Structure based drug design with suitable example. [5]
- Q.4(a) What are membrane transporters? Discuss their different types with function. [5]
Q.4(b) Illustrate the significance of OATAP and classify. [5]
- Q.5(a) What is Asthma? How is it characterized? [5]
Q.5(b) Explain the pharmacogenomic aspect of β -agonist in Asthma. [5]

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