

**B. Tech. Sem - VIII (Inf. Tech.) (2014 COURSE) (CBCS) :  
SUMMER - 2019**

**SUBJECT: 2) ELECTIVE-III: GENETIC ALGORITHM**

Day: Saturday  
Date: 01/06/2019

Time: 02.30 PM TO 05.30 PM  
Max. Marks: 60

**S-2019-2913**

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data if necessary.

**Q.1** What are the applications of evolutionary computations? **(10)**

**OR**

**Q.1** What are the advantages and limitations of Genetic algorithms? **(10)**

**Q.2** Explain the use of Fitness Scaling in evolutionary optimization. **(10)**

**OR**

**Q.2** If the population size in a genetic algorithm is restricted to 1, what search algorithm does it correspond to? Explain in brief. **(10)**

**Q.3** Explain the working of 'flipping' as mutation operator in Binary coded genetic algorithm. **(10)**

**OR**

**Q.3** Briefly describe what is Multi- objective and Combinatorial optimization? **(10)**

**Q.4** Distinguish between Roulette and Tournament selection approaches. **(10)**

**OR**

**Q.4** Write a short note on Independent Sampling Genetic algorithm. **(10)**

**Q.5** Write a short note on 'Haploid Genetic programming with dominance'. **(10)**

**OR**

**Q.5** Describe the characteristics of Genetic programming in detail. **(10)**

**Q.6** How Genetic algorithm can be applied for job scheduling problems. Explain with suitable example. **(10)**

**OR**

**Q.6** Explain the applications of Combinatorial optimization problem. **(10)**