

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech. Summer 2021-22 Examination**

**Semester: 8****Subject Code: 03104451****Subject Name: Construction Project Management & Economics****Date: 28/03/2022****Time: 10:30 am to 01:00 pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1** A) Draw the network from following three time estimate, find out total project duration. **(05)**

| Activity | Optimistic time | Pessimistic time | Most likely time |
|----------|-----------------|------------------|------------------|
| 1-2      | 2               | 6                | 4                |
| 1-3      | 2               | 10               | 6                |
| 1-4      | 7               | 9                | 6                |
| 2-3      | 4               | 9                | 7                |
| 3-5      | 3               | 12               | 11               |
| 4-5      | 4               | 14               | 10               |

B) What is Bar chart? Explain advantages and disadvantages of Bar chart. **(05)**

C) What do you understand by floats? Explain different types of float. **(05)**

**Q.2** Answer the following questions. (Attempt any three) (Each five mark) **(15)**

A) Discuss important traits of a project coordinator.

B) Differentiate between CPM and PERT.

C) Explain evaluation of public projects by benefit/cost ratio method

D) What do you mean by breakeven analysis? Which are the assumptions and advantages of Breakeven analysis?

**Q.3** A) What are the objectives of resource allocation? Explain what do you mean by resource levelling? **(07)**  
 Explain step by step process of resource levelling

B) What do you understand by direct cost and indirect cost? Enumerate steps for optimization of cost. **(08)**

**OR**

B) Enlist various forms of project management structure. Discuss pure project management with its advantages and disadvantages. **(08)**

**Q.4** A) What do you understand by updating? Why it is essential? **(07)**

**OR**

A) Prepare a work breakdown structure for a residential building project. **(07)**

B) Enumerate and discuss various phases of construction project. **(08)**