

NEPAL ENGINEERING COLLEGE

Level: Bachelor
Programme: B.E. Computer Science
Course: Engineering Management

Assessment

Year : 2025
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a. Discuss the primary functions of management and their interrelation in achieving organizational goals. 8
- b. Highlight the roles and responsibilities of an engineering manager in ensuring quality assurance and effective operations. 7
2. a. Explain the levels of planning (strategic, tactical, and operational) with suitable examples highlighting their differences and interconnections. 8

OR

Highlight the importance of planning in an organization. How does it contribute to achieving organizational goals?

- b. Differentiate between line and functional structures in traditional organizations and their relevance compared to modern structures 7
3. a. Describe various techniques for motivating employees. How can these techniques be tailored for a technical workforce? 8

OR

Compare and contrast on-the-job and off-the-job training methods. Which method is more effective for enhancing the skills of an ICT workforce, and why?

- b. Explain the process of control in an organization. Discuss the importance of ICT tools in ensuring effective control over engineering projects. 7
4. a. Based on Expectancy Theory, outline a plan for improving employee engagement and aligning individual goals with organizational objectives 8
- b. Highlight the key steps involved in the recruitment and selection process. 7
5. InnovTech Solutions, a rapidly growing ICT company, is expanding its operations. As the company scales up, it faces challenges in recruiting skilled professionals, retaining talent, and ensuring employee performance aligns with organizational goals. Despite investing in training programs, employees feel that their growth opportunities are limited. Additionally, the company struggles with project delays and inefficiencies in managing resources across engineering projects. The management team is exploring advanced ICT tools and control

techniques to improve project monitoring and execution

- a. Identify the key functions of human resource management that are relevant to addressing the challenges faced by InnovTech Solutions. 8
 - b. Discuss how job analysis, job specification, and job description can streamline the recruitment process for the company. 7
- 6.
- a. Explain the concept of participative management. How does it contribute to effective conflict resolution in engineering organizations? 8
 - b. Identify and explain recent engineering management concepts that are transforming ICT-based projects and organizations. Highlight their benefits. 7

7. Write short notes on (*Any Two*): 2×5

- a. Formal and Informal Organization
- b. Matrix Organizational Structure
- c. Performance appraisal