## 1451

## MANAGEMENT PROGRAMME

## **Term-End Examination**

June, 2014

## MS-58: MANAGEMENT OF R&D AND INNOVATION

Time: 3 hours

Maximum Marks: 100

(Weightage: 70%)

Note:

(i) Answer any four questions.

- (ii) All questions carry equal marks.
- 1. (a) What is the interaction between science, technology and business? How do these interactions affect industrial growth? Discuss with suitable examples.
  - (b) Distinguish with example between:
    - (i) Basic Research
    - (ii) Applied Research and
    - (iii) Experimental Development
- **2.** (a) Define Invention, Innovation and Design. Explain how they are interrelated.
  - (b) Explain the following techniques of enhancing and maintaining the creativity:
    - (i) Brainstorming (ii) Synectics
- 3. (a) "Corporate function of R&D is a managerial rather than technical function". Discuss and identify the content of this function.
  - (b) Discuss the various approaches used for R&D budgeting in an organisation.

- **4.** (a) Discuss the various types of partnerships for innovation and R&D.
  - (b) Discuss the various causes of failure of R&D projects. What can the management do to prevent such failures?
- 5. (a) Classify and briefly describe India's R&D infrastructure into appropriate categories.
  - (b) What resources are required for R&D activity? Write a critical note on the availability of relevant resources for R&D in India.
- 6. (a) How is commercialisation done in large private sector business houses in developed nations?
  - (b) What are the emerging issues which should be taken into account in conceptualising and implementing R&D projects?