

**ASSIGNMENT BOOKLET**

**Foundation Course  
in  
Science and Technology  
Bachelor's Degree Programme  
(BDP)**

**(Valid from 1<sup>st</sup> July, 2013 to 31<sup>st</sup> March, 2014)**

**It is compulsory to submit the assignment before filling in the exam form**



**School of Sciences  
Indira Gandhi National Open University  
New Delhi  
(2013-14)**

Dear Student,

We hope, you are familiar with the system of evaluation to be followed for the Bachelor's Degree Programme. At this stage you may probably like to re-read the section on assignments in the Programme Guide that was sent to you after your enrolment. A weightage of 30 percent, as you are aware, has been earmarked for continuous evaluation, which would consist of one tutor-marked assignment for this course. This assignment is based on all Blocks of this course i.e. Block 1-8.

### **Instructions for Formatting Your Assignments**

Before attempting the assignments, please read the following instructions carefully:

1. On top of the first page of your answer sheet, please write the details exactly in the following format:

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**ENROLMENT NO.:** .....

**NAME:** .....

**ADDRESS:** .....

.....

**COURSE CODE** : .....

**COURSE TITLE** : .....

**ASSIGNMENT NO. :** .....

**STUDY CENTRE** : ..... **DATE:** .....

**(NAME AND CODE)**

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**PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.**

2. Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
3. Leave 4 cm margin on the left, top and bottom of your answer sheet.
4. Your answers should be precise.
5. While writing answers, clearly indicate the Question No. and part of the question being solved.
6. Please note that:
  - i. This assignment is valid from 1st July, 2013 to 31<sup>st</sup> March, 2014.
  - ii. However, the response to this assignment is to be submitted to the Study Centre Coordinator within eight weeks of the receipt of this booklet in order to get the feedback and comments on the evaluated assignment.
  - iii. However, in any case, you have to submit the assignment response before appearing in the term end examination.
7. **We strongly suggest that you should retain a copy of your assignment responses.**

**Wishing you all good luck.**

## TUTOR MARKED ASSIGNMENT

Course Code: FST-01  
Assignment Code: FST-01/TMA-01/2013-14  
Maximum Marks: 100

### Answer all questions.

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1. a) Describe the factors which decide the broad area of Scientific activity? (5)  
b) Discuss briefly the scientific and technical achievements of the Bronze age (5)
2. a) Explain the factors that led to the decline of Science in Europe during iron age. (5)  
b) What were the main features of the social organization in the Gupta Empire that led to a great improvement in Science and Technology? Discuss briefly some development in astronomy during this period. (5)
3. a) Analyse the factors that impeded the growth of Science in India in the medieval times. (5)  
b) Compare the Indian and European societies of the period from the sixteenth to the eighteenth century and analyse the features of the then European society that helped the birth of modern Science. (5)
4. a) Discuss the shaping of Science and Technology policies in the post-independence phase of India. (5)  
b) Describe the evolution of a neutron star. (5)
5. a) Explain Darwin theory of natural selection. Why it was unacceptable to most people of that time? (5)  
b) What is remote sensing and how does it help in exploration of various natural sources. (5)
6. a) Discuss how the application of scientific knowledge has made better agriculture possible under different conditions. (5)  
b) List the diseases caused by malnutrition and deficiency of Vitamins and Minerals. What are the precautions one should take while cooking so as to retain maximum amount of vitamins in the food? (5)
7. a) Distinguish between infectious and non-infectious diseases. Discuss briefly how the infectious diseases travel from one person to another. (5)  
b) "Aggression is a basic instinct in animals while it is a learned behavior in human being." Do you agree with this statement? Justify you answer. (5)
8. a) Discuss the role of communication in bridging the cultural gap between the societies. (5)  
b) Describe the importance of R&D in industrial growth, and national development. (5)
9. a) Give reason for the benefits of our technological development not reaching all strata of our society. (5)  
b) The immense potential of science and technology has set human kind rethinking about its use: Explain this statement with the help of some examples. (5)
10. Describe the applications of the following given technologies:  
i) Laser  
ii) Fiber optics  
iii) Artificial satellites  
iv) Biotechnology (2½ ×4)