

Total No. of Questions: 6

Total No. of Printed Pages:3

Enrollment No.....



Faculty of Engineering / Science

End Sem Examination Dec-2023

EN3HS01 / BC3HS03

History of Science & Technology

Programme: B.Tech.

Branch/Specialisation: All

/ B. Sc.

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1
- i. Sushrut was known for his contribution in the field of: **1**
(a) Mathematics (b) Agriculture
(c) Medicine (d) Astrology
 - ii. Who was the first Indian scientist to receive Noble prize in the field of science? **1**
(a) Vikram Sarabhai (b) Har Gobind Khurana
(c) C.V Raman (d) Jagdish Chandra Bose
 - iii. The Technology Mission was initiated by: **1**
(a) Jawaharlal Nehru (b) M. Visveswaraya
(c) APJ Abdul Kala (d) Rajiv Gandhi
 - iv. Which of the following is an achievement of CSIR? **1**
(a) PASTER programme (b) Amul Milk Food
(c) Smart city mission (d) Swachh Bharat Mission
 - v. The full form of STP is: **1**
(a) Science and Technology Programme
(b) Scientific and Technical Programme
(c) Science and Technology Policy
(d) Scientific and Training Policy
 - vi. The fifth Five Year plan started an ended in: **1**
(a) 1978-1980 (b) 1974-1978
(c) 1961- 1966 (d) 1969- 1974

[2]

- vii. The National institute of Ocean Technology is in: **1**
 (a) Vishakhapatnam (b) Chennai
 (c) Goa (d) Mumbai
- viii. DAE (Department of Atomic Energy) came into existence on: **1**
 (a) 10 October 1974 (b) 8 July 1964
 (c) 8 August 1954 (d) 6 April 1986
- ix. Performance analysis of Aircraft is an example of: **1**
 (a) Technology transfer (b) Technology forecasting
 (c) Technology barrier (d) Technological innovation
- x. Bicycle water pump is an example of: **1**
 (a) Appropriate technology (b) Technological innovation
 (c) Technology assessment (d) Technology barrier
- Q.2 i. How science and faith are related to each other? Justify the statement with two examples. **2**
 ii. Explain using examples how science improvises the quality of life. **3**
 iii. Write in detail the qualities of a good scientist. **5**
 OR iv. Name any five scientists and their contribution in various fields. **5**
- Q.3 i. Discuss the evolution of technical education in India. **3**
 ii. Discuss about the technology mission and its contributions towards the society. **7**
 OR iii. What do you mean by research and development (R&D)? Write a note on 3 (three) organisations promoting scientific research in India and their contributions. **7**
- Q.4 Attempt any two:
 i. Discuss in detail about the Nehru's vision of science for independent India. **5**
 ii. Write a detailed note on any two science and technological policies in independent India. **5**
 iii. Discuss some of the development in the field of science and technology happened during all five year plans (till 2017). **5**

[3]

- Q.5 i. Discuss in brief about ocean development. What are the major areas where the department focusses its attention? **3**
 ii. Write a note on biotechnology and its application in the field of medicine and agriculture. **7**
 OR iii. What are the non-conventional energy sources? Discuss about some of the non-conventional energy sources in detail. **7**
- Q.6 i. What do you mean by technological innovation? **2**
 ii. Write a note on technology transfer and types of technology transfer. **8**
 OR iii. Write short notes on the following: **8**
 (a) Appropriate technology (b) Technology forecasting

Scheme of Marking

EN3HS01 History of Science Technology

Q.1	i)	(c) Medicine	1
	ii)	(c) C.V Raman	1
	iii)	(d)Rajiv Gandhi	1
	iv)	(b)Amul Milk Food	1
	v)	(c)Science and Technology Policy	1
	vi)	(b) 1974-1978	1
	vii)	(b) Chennai	1
	viii)	(c)3 August 1954	1
	ix)	(b)Technology Forecasting	1
	x)	(a) Appropriate technology	1
Q.2	i.	Two examples showing the relation between science and faith. 1 marks each (1 mark * 2)	2
	ii.	Three examples illustrating the usage if science in day-to-day life	3
	iii.	Five qualities of scientist 1 mark for each (1 mark * 5)	5
	OR iv.	Each Scientist and their contribution 1 mark for each (1 mark * 5)	5
Q.3	i.	A note from the beginning of technical education and the technical colleges	3
	ii.	Introduction to technology mission 1 mark its 6 mission 1 marks each with contribution (1 mark * 6) 6 marks	7
	OR iii.	Discussion on R& D 1 mark each and different research organisations carry 2 mark each.	7
Q.4	i.	The major contribution by Nehru in the field for science and technology needs to be discussed.	5
	ii.	Out of four policies only two has to explained each carrying 2.5 marks	5
	OR iii.	Each technological development in new era carries 1 mark each	5
Q.5	i.	A note on ocean development carries 1 mark and its role and activities carry 2 marks.	3
	ii.	Introduction to Biotechnology 1 mark. application in the field of medicine and agriculture 3 marks each.	7

OR	iii.	Introduction to non-conventional energy sources carry 1 marks and examples of non-conventional energy carries 2 marks each	7
Q.6	i.	Introduction and definition of any four Technological Innovation	2
	ii.	Introduction to Technology Transfer 2 marks its 4 types each carry 1.5 marks (1.5 marks *4) 6 marks	8
	iii.	The sub parts carry 4 marks each.	8
