



Faculty of Engineering / Science

End Semester Examination May 2025

EN3HS01 / BC3HS03 History of Science & Technology

Programme	:	B.Tech. / B. Sc.	Branch/Specialisation	:	All
Duration	:	3 hours	Maximum Marks	:	60

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary.

Notations and symbols have their usual meaning.

Section 1 (Answer all question(s))					Marks	CO	BL
Q1.	Who is known as the father of plastic surgery in India?				1	1	1
	<input type="radio"/> Acharya Kanad	<input type="radio"/> Varahamihira					
	<input type="radio"/> Nagarjuna	<input checked="" type="radio"/> Sushruta					
Q2.	Who is the father of ancient Indian medicine?				1	1	1
	<input type="radio"/> Sushruta	<input checked="" type="radio"/> Charaka					
	<input type="radio"/> Bhaskara	<input type="radio"/> Patanjali					
Q3.	What is the name of first tractor developed by CSIR?				1	2	1
	<input type="radio"/> Escorts	<input type="radio"/> Marut					
	<input checked="" type="radio"/> Swaraj	<input type="radio"/> Sonalika					
Q4.	What is the full form of PATSER?				1	2	1
	<input checked="" type="radio"/> Programme Aimed at Technological Self-Reliance	<input type="radio"/> Program Aided To Self fund for Engineering Research					
	<input type="radio"/> Public Aided Technology Scheme for Self Reliance	<input type="radio"/> Provident Aimed Technology Scheme for Engineering Research					
Q5.	When was the planning commission formed in India?				1	3	1
	<input type="radio"/> 14 May 1951	<input checked="" type="radio"/> 15 March 1950					
	<input type="radio"/> 14 March 1950	<input type="radio"/> 15 March 1947					
Q6.	Which policy was introduced in the year 2013?				1	3	1
	<input type="radio"/> The science and technology policy	<input type="radio"/> The technology policy					
	<input checked="" type="radio"/> The science, technology and innovation policy	<input type="radio"/> The innovation and research policy					
Q7.	When was Indian Space Research Organization was formed?				1	4	1
	<input checked="" type="radio"/> August 15, 1969	<input type="radio"/> August 15, 1960					
	<input type="radio"/> August 14, 1969	<input type="radio"/> August 14, 1967					
Q8.	What is the name of first Indian and Asian nuclear reactor?				1	4	1
	<input type="radio"/> ZERLINA	<input checked="" type="radio"/> APSARA					
	<input type="radio"/> CIRUS	<input type="radio"/> PURNIMA					
Q9.	Among the given options, select the appropriate example of vertical technology transfer.				1	4	1
	<input type="radio"/> Inter-university assessment cells	<input checked="" type="radio"/> Nano-technology					
	<input type="radio"/> Licensing	<input type="radio"/> Transfer of turbines and motors within BHEL plants					

Q10. _____ is an agreement usually concluded between two or more big companies in order to use specific skills of each of them in the development of new innovative technologies. 1 4 1

- ☐ Support contract
 ☐ Franchising
☒ Strategic alliance
 ☐ Direct foreign investments

Section 2 (Answer all question(s))

Marks CO BL

Q11. Define science and technology with one example for each. 3 1 2

Rubric	Marks
1 mark for defining each and 0.5 mark for proper example for each.	3

Q12. (a) Write about any seven Indian scientists with their field of contribution in detail. 7 1 1

Rubric	Marks
one mark for each Indian scientist	7

(OR)

(b) "Science relies on facts and religion relies on beliefs", can the science be correlated with religious belief system? Yes or No. Justify your statement with proper examples.

Rubric	Marks
7 EXAMPLES WITH 1 MARK EACH	7

Section 3 (Answer all question(s))

Marks CO BL

Q13. Define research. What are the types of research? 3 2 1

Rubric	Marks
What is research 1 mark, Types of Research 1 mark	3

Q14. (a) What is PATSER? What are its objectives? Explain any four activities of PATSER. 7 2 2

Rubric	Marks
What is PATSER 1 mark, What are its Objectives 2 marks, activities of PATSER 1 mark each	7

(OR)

(b) What is the role and responsibilities of CSIR? Write any four achievements of CSIR.

Rubric	Marks
Role and Responsibility of CSIR 3 marks, Achievements 4 marks.	7

Section 4 (Answer all question(s))

Marks CO BL

Q15. Explain what you understand by the term "Plan Holidays" in context to five-year plans. 2 3 2

Rubric	Marks
2 MARKS for explanation	2

Q16. (a) Explain the first, second, third and fourth five-year plans in detail.

8 3 1

Rubric	Marks
2 marks each	8

(OR)

(b) Explain any four science & technology policies in independent India.

Rubric	Marks
2 marks each	8

Section 5 (Answer all question(s))

Marks CO BL

Q17. Who is the father of Indian nuclear program and Indian space program?

2 4 1

Rubric	Marks
one mark each	2

Q18. (a) What is the biotechnology? Write applications of biotechnology in medicine, agriculture, and food.

8 4 2

Rubric	Marks
Definition of Biotechnology 2 marks. Applications 2 marks each.	8

(OR)

(b) What are the different sources of energy? Write in detail what research and development in the field of nonconventional energy resources is going on in India.

Rubric	Marks
8 marks for overall theory.	8

Section 6 (Answer all question(s))

Marks CO BL

Q19. Explain the transfer of technology with suitable examples.

2 4 2

Rubric	Marks
DEFINITION 1 MARK.EXAMPLE ONE MARK	2

Q20. (a) Explain appropriate technology with examples. What are barriers of technological change?

8 4 2

Rubric	Marks
Explanation of Appropriate technology with example 4 marks. Barriers of technological change 4 marks.	8

(OR)

(b) Explain the process of technology transfers in detail. Write each steps.

Rubric	Marks
8 steps one mark each	8
