

Total No. of Questions: 6

Total No. of Printed Pages: 3

Enrollment No.....



Faculty of Engineering Science  
End Sem Examination Dec 2024

EN3HS01 / BC3HS03

History of Science & Technology

Programme: B.Tech. / B.Sc.

Branch/Specialisation: All

**Maximum Marks: 60**

**Duration: 3 Hrs.**

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.

	Marks	BL	PO	CO	PSO
Q.1 i. Amongst the following find the ODD pair-	<b>1</b>	1	6,7	1	
(a) C V Raman - Physics					
(b) V Ramakrishna - Biology					
(c) Hargobind Khorana- Medicine					
(d) S Chandrashekhar- Mathematics					
ii. Who is the founder of Indian Institute of Science, Bangalore?	<b>1</b>	1	6,7	1	
(a) Vikram Sarabhai (b) C V Raman					
(c) Sir A.G Bourne (d) Jamshedji Tata					
iii. Which of the following is the first step in starting the research process?	<b>1</b>	1	1,6	2	
(a) Searching sources of information to locate problem					
(b) Survey of related literature					
(c) Identification of problem					
(d) Searching for solutions to the problem					
iv. Ksheer-scanner technology made by CSIR-CEERI is used to find adulterants in-	<b>1</b>	1	1,6	2	
(a) Rice (b) Milk (c) Oil (d) Pulses					
v. Most successful plan in terms of growth rate is-	<b>1</b>	1	6,7	3	
(a) Fifth five-year plan					
(b) Sixth five-year plan					
(c) Seventh five-year plan					
(d) Eleventh five-year plan					

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- vi. Science, Research and Innovation System for High Technology led path for India (SRISHTI) is a vision belongs to-
- The Science Policy 1958
  - The Science Policy Statement of 1983
  - The Science Policy Resolution of 2003
  - Science, Technology and Innovation Policy
- vii. Which type of fuel is used by GSLV in its operations?
- Solid fuel
  - Liquid fuel
  - Liquid in first stage and solid in second stage
  - Solid in first stage and liquid in second stage
- viii. One of India's largest windmill farm is in.....which generates 380 MW of electricity.
- Kanyakumari
  - Sriharikota
  - Bangaluru
  - Gurugram
- ix. The process of transferring scientific findings from one organization to another for the purpose of further development and commercialization-
- Technology Development
  - Technology Importing
  - Technology Exporting
  - Technology Transfer
- x. In which technology transfer method company's dependence on the technology owner is the biggest disadvantage-
- Franchising
  - Joint Venture
  - Licensing
  - Support Contract
- Q.2**
- Is faith a closed belief system? Explain with the help of two example.
  - What were the technological contributions of ancient civilizations? List atleast six of them.
- OR**
- Scientists are perceived as the truth holders and the truth creators for society. Justify the statement.

<b>1</b>	<b>1</b>	<b>6,7</b>	<b>3</b>
<b>1</b>	<b>1</b>	<b>1,8</b>	<b>4</b>
<b>1</b>	<b>1</b>	<b>1,8</b>	

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- Q.3
- Why research is an integral part for the development of any country.
  - What are technology missions? Explain any four technology missions.
- OR
- Write a brief introduction of CSIR. List some of its achievements.
- Q.4
- What was the Nehru's vision for modern India?
  - In which five year plan the concept of liberalisation, privatisation, globalization was given. Who has given this concept & what was the reason behind it?
- OR
- What was the objective of Nehruji behind giving the scientific policy resolutions? State the objectives of 1958 policy.
- Q.5
- Attempt any two:
- What are the objectives of space program? For what purpose the INSAT system is instigated. Enlist some of its applications.
  - What are the prospects of non-conventional energy sources in India? What are its economic, social, and environmental benefits?
  - What is India's three stage nuclear power programme?
- Q.6
- Attempt any two:
- What is technology transfer? Draw its process plan and explain its types.
  - Write short note on-
    - Appropriate technology
    - Technology assessment
  - Explain any five methods of technology transfer with relevant example.

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**Marking Scheme**  
**EN3HS01 History of Science Technology**

Q.1			OR		
i)	d. S Chandrashekhar – Mathematics	1	Q.5	i.	1.5 marks for objective ,1.5 marks for the reason, 2 marks for services
ii)	d. Jamsetji Tata	1		ii.	2.5 marks for the prospect, 2.5 marks for benefits
iii)	c. Identification of problem	1		iii.	2 marks for programme, 1 mark for each stage description.
iv)	b. Milk	1	Q.6		
v)	d. Eleventh five-year plan	1	i.	1.5 marks for definition, 1.5 marks for process wheel,2 marks for its types	5
vi)	d. Science, Technology and Innovation Policy	1	ii.	2.5 marks for each	5
vii)	d. Solid in first stage and liquid in second stage	1	iii.	1 mark for each method	5
viii)	a. Kanyakumari	1			
ix)	d. Technology Transfer	1			
x)	a. Franchising	1			
				*****	
Q.2	i. 1 mark for explanation and 1.5 marks for each example	4			
	ii. 1 mark for each contribution	6			
OR	iii. 6 marks for justification (depends on student perception and interpretation)	6			
Q.3	i. 4 marks for explanation	4			
	ii. 2 marks for technology mission and 1 mark for each mission	6			
OR	iii. 2 marks for introduction and 4 marks for achievements	6			
Q.4	i. 4 marks for vision	4			
	ii. 1 mark for plan name,1 marks for person name, and 4 marks for the reason	6			