

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

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.

		Marks	BL	PO	CO	PSO
Q.1	i. Amongst the following find the ODD pair-	1	1	6,7	1	
	(a) C V Raman - Physics					
	(b) V Ramakrishna - Biology					
	(c) Hargobind Khorana- Medicine					
	(d) S Chandrashekhhar- Mathematics					
	ii. Who is the founder of Indian Institute of Science, Bangalore?	1	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?	1	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-	1	1	1,6	2	
	(a) Rice (b) Milk (c) Oil (d) Pulses					
	v. Most successful plan in terms of growth rate is-	1	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-	1	1	6,7	3
	(a) The Science Policy 1958				
	(b) The Science Policy Statement of 1983				
	(c) The Science Policy Resolution of 2003				
	(d) Science, Technology and Innovation Policy				
vii.	Which type of fuel is used by GSLV in its operations?	1	1	1,8	4
	(a) Solid fuel				
	(b) Liquid fuel				
	(c) Liquid in first stage and solid in second stage				
	(d) 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.	1	1	1,8	
	(a) Kanyakumari (b) Sriharikota				
	(c) Bangaluru (d) Gurugram				
ix.	The process of transferring scientific findings from one organization to another for the purpose of further development and commercialization-	1	1	1,8	4
	(a) Technology Development				
	(b) Technology Importing				
	(c) Technology Exporting				
	(d) Technology Transfer				
x.	In which technology transfer method company's dependence on the technology owner is the biggest disadvantage-	1	1	1,8	4
	(a) Franchising (b) Joint Venture				
	(c) Licensing (d) Support Contract				
Q.2	i. Is faith a closed belief system? Explain with the help of two example.	4	1	6,7	1
	ii. What were the technological contributions of ancient civilizations? List atleast six of them.	6	1	6,7	1
OR	iii. Scientists are perceived as the truth holders and the truth creators for society. Justify the statement.	6	1	6,7	1

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Q.3	i. Why research is an integral part for the development of any country.	4	1	1,6	2
	ii. What are technology missions? Explain any four technology missions.	6	1	1,6	2
OR	iii. Write a brief introduction of CSIR. List some of its achievements.	6	1	1,6	2
Q.4	i. What was the Nehru's vision for modern India?	4	1	6,7	3
	ii. In which five year plan the concept of liberalisation, privatisation, globalization was given. Who has given this concept & what was the reason behind it?	6	1	6,7	3
OR	iii. What was the objective of Nehruji behind giving the scientific policy resolutions? State the objectives of 1958 policy.	6	1	6,7	3
Q.5	Attempt any two:				
	i. What are the objectives of space program? For what purpose the INSAT system is instigated. Enlist some of its applications.	5	1	1,8	4
	ii. What are the prospects of non-conventional energy sources in India? What are its economic, social, and environmental benefits?	5	1	1,8	4
	iii. What is India's three stage nuclear power programme?	5	1	1,8	4
Q.6	Attempt any two:				
	i. What is technology transfer? Draw its process plan and explain its types.	5	2	1,8	4
	ii. Write short note on-	5	2	1,8	4
	(a) Appropriate technology				
	(b) Technology assessment				
	iii. Explain any five methods of technology transfer with relevant example.	5	2	1,8	4

Marking Scheme
EN3HS01 History of Science Technology

Q.1	i)	d. S Chandrashekhar – Mathematics	1
	ii)	d. Jamsetji Tata	1
	iii)	c. Identification of problem	1
	iv)	b. Milk	1
	v)	d. Eleventh five-year plan	1
	vi)	d. Science, Technology and Innovation Policy	1
	vii)	d. Solid in first stage and liquid in second stage	1
	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
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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
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Q.4	i.	4 marks for vision	4
	ii.	1 mark for plan name, 1 mark for person name, and 4 marks for the reason	6

OR	iii.	2 marks for the objective, 4 marks for 1958 policy objective.	6
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Q.5	i.	1.5 marks for objective, 1.5 marks for the reason, 2 marks for services	5
	ii.	2.5 marks for the prospect, 2.5 marks for benefits	5
	iii.	2 marks for programme, 1 mark for each stage description.	5

Q.6	i.	1.5 marks for definition, 1.5 marks for process wheel, 2 marks for its types	5
	ii.	2.5 marks for each	5
	iii.	1 mark for each method	5
