Enrollment No......................................

Faculty of Engineering
End Sem (Odd) Examination Dec-2019
EN3HS01 History of Science and Technology

Programme: B.Tech.   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.

Q.1   i.   The contributions of CV Raman were in which field of science?   1
(a) Mathematics   (b) Chemistry
(c) Physics   (d) Nuclear

ii.   Indian Technology Day is celebrated every year on which date?   1
(a) 28th February   (b) 22nd April
(c) 15th September   (d) 11th May

iii.   INSPIRE Scheme is sponsored by which one of the following bodies?   1
(a) DST   (b) DSIR   (c) DRDO   (d) CSIR

iv.   The gift of CSIR to the visually impaired persons for assisting them in reading is _____.   1
(a) Braille Script   (b) Divya- Nayan
(c) Head-up-Display   (d) Drishti

v.   Which Science policy was focused on 'Innovation'?   1
(a) SPR 1958   (b) STP 2003
(c) STIP 2013   (d) None of these

vi.   The Duration of 1966-1969 was the period of _____.   1
(a) Annual Plans   (b) 5-year plan
(c) Rolling Plans   (d) Plan Holidays

vii.   Which launch vehicle was used in the launch of Chandryaan-II?   1
(a) SLV3   (b) PSLV   (c) GSLV   (d) GSLV MK-III

viii.   The International Center for Genetic Engineering and Biotechnology is located at _____.   1
(a) Pune   (b) New Delhi (c) Bangalore (d) Kolkata

ix.   Pizza Corner is an example of _____ in India.   1
(a) Licensing   (b) Franchising
(c) Strategic Alliance   (d) Joint Venture

P.T.O.

x.   Which of the following is Technology Forecasting Method?   1
(a) Exploratory   (b) Normative
(c) Delphi   (d) All of these

Q.2   i.   Define Science. Also mention its types.   2
ii.   Enlist the contributions of any three Indian scientists.   3
iii.   "Science gives answer to all the myths prevailing in the society". Justify the statement.   5
OR   iv.   Discuss how science flourished in India from ancient to modern times.   5

Q.3   i.   Which organisation runs the PATSER scheme. Enlist various projects completed under the scheme.   4
ii.   What are DST and DSIR? Also enlist various initiatives taken by these organisations for promotion of research and development activities in India.   6
OR   iii.   Discuss about CSIR, its objectives and its achievements.   6

Q.4   i.   What was the vision of Nehru ji about science for independent India? Mention various initiatives taken by him to achieve it.   4
ii.   Which organisation implements the policies related to science and technology in India? Discuss objectives of STP 2003 and STIP 2013.   6
OR   iii.   What are five-year plans? Enlist the scientific achievements happened during the all twelve five-year plans.   6

Q.5   Attempt any two:
i.   What is the need of Ocean Development in India? Mention   various initiatives taken by the Indian government for developing Ocean.   5
ii.   What is an INSAT System? Discuss services provided by the system.   5
iii.   What are Non-Conventional energy Sources? Discuss the installation method and capacity of any of these two sources in India?   5

Q.6   i.   Enlist various barriers faced in technological change.   3
ii.   What is technology transfer? Discuss its types with example.   7
OR   iii.   Mention various methods of Technology Transfer? Give explanation of any three methods with example.   7

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Marking Scheme
EN3HS01 History of Science and Technology

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(c) Physics

ii.   Indian Technology Day is celebrated every year on which date?   **1**
(d) 11th May

iii.   INSPIRE Scheme is sponsored by which one of the following bodies?   **1**
(a) DST

iv.   The gift of CSIR to the visually impaired persons for assisting them in   **1**
reading is _____.
(b) Divya- Nayan

v.   Which Science policy was focused on 'Innovation'?   **1**
(c) STIP 2013

vi.   The Duration of 1966-1969 was the period of _____.   **1**
(d) Plan Holidays

vii.   Which launch vehicle was used in the launch of Chandryaan-II?   **1**
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viii.   The International Center for Genetic Engineering and Biotechnology   **1**
is located at _____.
(b) New Delhi

ix.   Pizza Corner is an example of _____ in India.   **1**
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x.   Which of the following is Technology Forecasting Method?   **1**
(d) All of these

Q.2   i.   Definition of Science   1 mark   **2**
Its types   1 mark

ii.   Three scientists name with contribution   **3**
1 mark for each   (1 mark * 3)

iii.   Five examples of science and faith 1 mark for each   (1 mark * 5)   **5**

OR iv.   How science flourished in India from ancient to modern times   **5**
At least five examples   1 mark for each   (1 mark * 5)

Q.3   i.   Name of organisation   1 mark   **4**
Name of three completed projects
1 mark for each project (1 mark * 3)   3 marks

ii.   Information of DST   1 mark   **6**
Information of DSIR   1 mark
At least for schemes or initiatives
1 mark for each (1 mark * 4)   4 marks

OR iii.   About CSIR   2 marks   **6**
Its objectives   2 marks
At least four achievements
0.5 mark for each (0.5 mark * 4)   2 marks

Q.4   i.   Nehru vision statement   2 marks   **4**
Any four initiatives 0.5 mark for each (0.5 mark *4) 2 marks

ii.   Name of organisation   1 mark   **6**
Objectives of STP 2003 and STIP 2013
2.5 marks for each project (2.5 marks * 2)   5 marks

OR iii.   Duration and information of plans   2 marks   **6**
At least eight achievements
0.5 mark for each point (0.5 mark * 8)   4 marks

Q.5   Attempt any two:

i.   About the need of Ocean Development   2.5 marks   **5**
Development initiatives   2.5 marks

ii.   About INSAT System   2 marks   **5**
At least six services
0.5 marks for each (0.5 mark * 6)   3 marks

iii.   Non-Conventional energy Sources definition   2 marks   **5**
Installation method and capacity
1.5 marks for each (1.5 marks * 2)   3 marks

Q.6   i.   At least six barriers faced in technological change   **3**
0.5 mark for each   (0.5 mark * 6)

ii.   Definition of technology transfer   2 marks   **7**
Tot types (any five) with explanation and example
1 mark for each (1 mark * 5)   5 marks

OR iii.   List of methods of Technology Transfer   1 mark   **7**
At least three methods and example
2 marks for each (2 marks * 3)   6 marks

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