

ENTRANCE EXAMINATION, 2014

M.Phil./Ph.D.

STUDIES IN SCIENCE POLICY

[Field of Study Code : SSPP (148)]

Time Allowed : 3 hours

Maximum Marks : 70

- Note :** (i) This question paper has **four** Parts. Read the instructions given in each Part.
(ii) All Parts are to be answered in the answer-script.
(iii) The figures in the right-hand margin indicate marks for the questions.

PART—I

Choose the correct answer of the following :

1×10=10

1. In which year the latest Science, Technology and Innovation Policy was issued by the Government of India?
 - (a) 1958
 - (b) 2014
 - (c) 2003
 - (d) 2013
2. National Technology Day in India is observed on
 - (a) 11th May
 - (b) 5th June
 - (c) 28th February
 - (d) 7th December
3. The *Sociology of Science* (published in 1979) was a major contribution in the field of science policy studies by
 - (a) Max Weber
 - (b) Robert K. Merton
 - (c) Talcott Parson
 - (d) Emile Durkheim

4. Which of the following is not correctly matched?
- (a) *Operation Flood*—Production of Milk
 - (b) *Blue Revolution*—Production of Indigo
 - (c) *Green Revolution*—Use of High-yield Variety Seeds
 - (d) *Golden Quadrilateral*—Highway Network
5. Between the years 2001–2010, India's expenditure on R & D as percentage of Gross National Product has hovered around
- (a) 2 to 3 percent
 - (b) 3 to 4 percent
 - (c) 0.8 to 1 percent
 - (d) None of the above
6. Mars Mission was launched by ISRO in
- (a) September 2012
 - (b) November 2013
 - (c) December 2013
 - (d) Still awaited
7. Which one of the following is not true about the Jawaharlal Nehru National Solar Mission (JNNSM)?
- (a) It was started in 2009
 - (b) It aims to make India a global leader in solar energy
 - (c) It has three-phase approach
 - (d) It will end in the year 2015
8. Which one of the following is the nodal agency for international cooperation in the area of agricultural research and education in India?
- (a) Department of Agricultural Research and Education
 - (b) Ministry of External Affairs
 - (c) Indian Council of Agricultural Research
 - (d) All of the above
9. The e-waste (Management and Handling) Rule, 2011 came into effect from
- (a) 2011
 - (b) 2012
 - (c) 2013
 - (d) 2014
10. Expand the following abbreviations :
- (a) BARC
 - (b) ISRO
 - (c) NRDC
 - (d) UNESCO

PART—II

Explain about any *five* of the following in 50 words each :

2×5=10

11. Grassroots innovations
12. Social capital
13. Cryogenics
14. Lotka law
15. Crowdsourcing
16. Genomics
17. Quota sampling in social science research
18. Greening of Patent
19. Gini coefficient
20. Drip irrigation

PART—III

Answer any *four* of the following in not more than 200 words each :

5×4=20

21. What do you understand by Green Chemistry? Describe its significance.
22. Discuss the significance of National Electric Mobility Mission Plan (NEMMP), 2020.
23. Critically analyze the importance of National Action Plan on climate change in India.
24. Analyze the socioeconomic impact of the Kudankulam Atomic Power Plant.
25. Do you think that stem cell research in India requires any regulatory mechanism? Discuss.

26. What are the major challenges before India's science and technology policy in the twenty-first century?
27. How relevant is the Jawaharlal Nehru National Solar Mission for energy security in India?
28. Critically analyze the relevance of positivism in social science research.
29. Will the Patent Cliff by 2015 and the likely rush for the production of biosimilar prove to be a lethal blow for the development of the biopharmaceutical sector in India? Explain.

PART—IV

Answer any *two* of the following in 1500 words each :

15×2=30

30. Are the international trade and investment policies undermining India's national policy space? Discuss.
31. "MNCs are not the drivers for transferring of advance technologies in India." Do you agree?
32. Discuss the role of FDI in retail for bringing innovations in food-processing sector in India.
33. What are the key challenges for storage facilities in agriculture sector in India? Discuss the latest policies and programs for their development.
34. Can India develop energy security through renewables?
35. Globalization and market-based economy is widening the gap between 'haves' and 'have not'. Do you agree?
36. Discuss the role of social media in promoting participative democracy in the context of science and technology policy in India.
37. Analyze the consequences of the moratorium on the release of transgenic brinjal hybrid.
38. Discuss the relevance of views of Gandhi, Ambedkar and Tagore on rural development and empowerment of people of India.
39. Do you agree or disagree that the Indian Education System has produced very few techno-entrepreneurs? Explain with illustration.
