

2010

Total Pages: 12

69

JNUEE: Question Papers (2010-2012) Rs.10/-

ENTRANCE EXAMINATION, 2012

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

Write the correct answer of the following (Q. Nos. 1 to 9) :

1×9=9

1. The book entitled *Against Method* was authored by
 - (a) J. D. Bernal
 - (b) Karl Popper
 - (c) Paul Feyerabend
 - (d) Vannevar Bush
2. The Scientific Policy Resolution was passed by the Parliament of India in the year
 - (a) 1957
 - (b) 1974
 - (c) 1983
 - (d) None of the above
3. India's current national R & D expenditure as a proportion of GDP is around
 - (a) 0.50 percent
 - (b) 2.50 percent
 - (c) 1.50 percent
 - (d) None of the above

1/69

ENTRANCE EXAMINATION, 2012

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

Write the correct answer of the following (Q. Nos. 1 to 9) :

1×9=9

1. The book entitled *Against Method* was authored by
 - (a) J. D. Bernal
 - (b) Karl Popper
 - (c) Paul Feyerabend
 - (d) Vannevar Bush
2. The Scientific Policy Resolution was passed by the Parliament of India in the year
 - (a) 1957
 - (b) 1974
 - (c) 1983
 - (d) None of the above
3. India's current national R & D expenditure as a proportion of GDP is around
 - (a) 0.50 percent
 - (b) 2.50 percent
 - (c) 1.50 percent
 - (d) None of the above

4. Which of the following genetically modified crops/vegetables is/are approved for farming in India?
- (a) Cotton and Tomato
 - (b) Cotton and Brinjal
 - (c) Cotton only
 - (d) None of the above
5. S. S. Bhatnagar Award is given for exemplary contribution in the field of
- (a) Biology and Medicine
 - (b) Physics and Mathematics
 - (c) Environmental Science
 - (d) All of the above
6. Which one of the following is **not** correctly matched?
- (a) National Physical Laboratory → Gurgaon
 - (b) Indian Toxicological Research Centre → Kanpur
 - (c) Centre for Cellular and Molecular Biology → Kolkata
 - (d) Physical Research Laboratory → Allahabad
 - (e) All of the above
7. The concept of 'division of labour' finds a place in the works of
- (a) Karl Marx
 - (b) Adam Smith
 - (c) Emile Durkheim
 - (d) All of them
8. Which one of the following is **not** correctly matched?
- (a) *The Social Function of Science* → J. D. Bernal
 - (b) *Science in a Free Society* → Karl R. Popper
 - (c) *Capitalism, Socialism and Democracy* → Joseph Schumpeter
 - (d) *Science : The Endless Frontier* → Vannevar Bush

9. Venkataraman Ramakrishnan got Nobel Prize in the field of

- (a) Chemistry
- (b) Physics
- (c) Medicine
- (d) None of the above

10. Write the full forms of IISER, NCERT, ISRO and ICSSR.

1

PART—II

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

2×5=10

- 11. Laissez-faire
- 12. Humanistic Temper
- 13. Indian Citation Index
- 14. Techno-nationalism
- 15. Human Development Index
- 16. Gini Coefficient
- 17. Critical Region
- 18. Patent Thicket
- 19. Environmental Kuznets Curve
- 20. Journal Impact Factor

PART—III

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

5×4=20

- 21. Discuss the salient features of India's Science and Technology Policy, 2003.
- 22. Discuss the scope of Nanotechnology in medical research.
- 23. Discuss the role of 'Mathew effect' for scientific community.
- 24. Explain the Marxian notion of capital accumulation.

25. Discuss the concept of 'cultural lag' in the context of diffusion of new technology.
26. Write a short note on cyber crimes in India.
27. Discuss S-shaped curve of diffusion of technology.
28. "Gandhi was not against technology." Illustrate your answer with examples.
29. Explain, with the help of diagrams, the difference between 'drastic' and 'non-drastic' innovation.
30. Describe stratified random sampling. How is it different from cluster sampling?
31. Discuss the significance of 'demographic dividend' in India.
32. "A perfectly competitive firm has more incentive to adopt new technology than a monopolist." Explain with the help of diagrams.

PART—IV

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

15×2=30

33. Discuss the role of media in science communication and coproduction of knowledge.
34. Discuss the role of technology for inclusive growth with a focus on Mahatma Gandhi National Rural Employment Guarantee Act and National Rural Health Mission.
35. Critically discuss the role of Antrix Corporation in the development of India's Space Programme.
36. What are the major challenges of nuclear energy technology? Illustrate your answer with relevant examples from Indian context.
37. "Does technology drive history?" Critically examine the role of technology in social change.
38. Discuss the importance of technological collaboration in rural reconstruction programme initiated by Rabindranath Tagore.
39. "Bridging the digital divide will not bring digital equality." Illustrate your answer with suitable examples.
40. Discuss the significance of and difference between 'technology forecasting' and 'technology foresight'.

25. Discuss the concept of 'cultural lag' in the context of diffusion of new technology.
26. Write a short note on cyber crimes in India.
27. Discuss S-shaped curve of diffusion of technology.
28. "Gandhi was not against technology." Illustrate your answer with examples.
29. Explain, with the help of diagrams, the difference between 'drastic' and 'nondrastic' innovation.
30. Describe stratified random sampling. How is it different from cluster sampling?
31. Discuss the significance of 'demographic dividend' in India.
32. "A perfectly competitive firm has more incentive to adopt new technology than a monopolist." Explain with the help of diagrams.

PART—IV

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

15×2=30

33. Discuss the role of media in science communication and coproduction of knowledge.
34. Discuss the role of technology for inclusive growth with a focus on Mahatma Gandhi National Rural Employment Guarantee Act and National Rural Health Mission.
35. Critically discuss the role of Antrix Corporation in the development of India's Space Programme.
36. What are the major challenges of nuclear energy technology? Illustrate your answer with relevant examples from Indian context.
37. "Does technology drive history?" Critically examine the role of technology in social change.
38. Discuss the importance of technological collaboration in rural reconstruction programme initiated by Rabindranath Tagore.
39. "Bridging the digital divide will not bring digital equality." Illustrate your answer with suitable examples.
40. Discuss the significance of and difference between 'technology forecasting' and 'technology foresight'.

4/69