



Indian Institute of Information Technology Vadodara
भारतीय सूचना प्रौद्योगिकी संस्थान वडोदरा

Course Name: Science Technology and Society
Course Code: HS102
Mode of Submission: Scan and Upload

Time: 03 hrs
Semester: II
Total Marks: 90

Answer the following questions -

1. Explore the cultural and societal implications of the Oedipus and Electra complexes and state the stories they were based on. How do these psychoanalytic concepts reflect and influence traditional gender roles and familial structures? (9)
2. Which part of the psyche propounded by Freud's personality theory is reflected in the following situations? Justify your answer. (9)

A - Emily's friend confided in her about a secret that could potentially damage another friend's reputation. Even though sharing the secret might have temporarily boosted her social standing, Emily valued loyalty and honesty more. She chose to keep her friend's secret and uphold her integrity, even if it meant facing criticism or missing out on gossip.

B - Tom came across a controversial post on social media that he strongly disagreed with. Instead of engaging in a heated argument or leaving negative comments, he chose to express his differing opinion respectfully and constructively, promoting healthy discourse rather than contributing to online hostility.

C - In a crowded parking lot during the holiday shopping season, drivers compete fiercely for available spots. Some drivers disregard traffic rules and common courtesy, speeding and cutting off others to secure a prime parking space near the entrance, prioritizing convenience over safety and consideration for fellow drivers.

3. To what extent does the digital divide exacerbate existing social inequalities, and what ethical responsibilities do governments and corporations have in bridging this gap? (7)
4. What do you understand about Nehruvian science, and what were its defining characteristics? (7)
5. Write a short note on three Indian scientists (FRS) with special mention of their work. (7)

6. How is Science, Society and Mental Health related? What are the main forms of mental health related stigmas? (7)
7. What do you understand by cyberculture? Explain the same in the Indian context. How did the Y2K fiasco ultimately unfold, and what lessons can be drawn from this event for managing technological risks in the future? (7)
8. The technological prowess and urban planning of the ancient Indus Valley Civilization surpasses our current capabilities. Comment. (7)
9. Answer the following: (30)

1. Which bacteria is responsible for the formation of curd?
2. What is the chemical symbol for gold?
3. What is the name of the telescope recently launched to study early galaxies?
4. Which planet is known as the Red Planet?
5. Which element is used in light bulbs to produce light?
6. How many Union Territories are there in India??
- 7. What is the name of the international space station orbiting Earth?
8. What is the process of splitting atomic nuclei called?
9. What is the smallest mammal in the world?
10. Who is known as the father of the Indian nuclear programme?
11. The disease "Karnal bunt" is found in which cereals?
- 12. In which Indian state is the Harauti language spoken?
13. Name the smallest continent ?
14. Who invented penicillin?
15. Which nuclear particle has no mass and no charge, but only spin?
- ✓ 16. Which is the largest natural satellite in our solar system??
- ✓ 17. Which social science discipline focuses on the study of society, social institutions, and social behavior?
- ✓ 18. Who is the third astronaut who traveled to the Moon along with Neil Armstrong and Buzz Aldrin?
19. What is the original name given to the planet Uranus?
20. Who is known as the "Father of the Indian Constitution"?
21. Who is the founder of Marxian theory?
- ✓ 22. Who is a key collaborator of Marxism?
- ✓ 23. In which year was the Communist Manifesto published?
24. What is the Marxist term for the ruling class?
25. What is the Marxist term for the working class?

26. Where did the term class originate from?
27. Which countries blacklisted and banned Marx?
28. _____ is an economic and political system in which a country's trade and industry are controlled by private owners for profit.
29. Marx have explained _____ types of alienation in a workplace
- 30. _____ the free, universal, creative and self-creative activity through which man creates and changes his historical world and himself.
31. _____ a theory or system of social organization in which all property is owned by the community and each person contributes and receives according to their ability and needs.
32. Falsificationism is associated with?
33. _____ is a philosophical system recognizing only that which can be scientifically verified or which is capable of logical or mathematical proof, and therefore rejecting metaphysics and theism.
- 34. _____ is the branch of philosophy that deals with the first principles of things, including abstract concepts such as being, knowing, identity, time, and space.
35. _____ is broadly defined as the belief in the existence of a Supreme Being or deities.
- 36. Freud's 'Interpretation of Dreams' was published in?
37. _____ is the primitive and instinctive component of personality.
38. _____ that part of the id which has been modified by the direct influence of the external world.
39. _____ incorporates the values and morals of society which are learned from one's parents and others.
40. The superego consists of _____ ?
41. What stage marks the first psychosexual development?
42. When does the anal stage occur in Freud's theory?
43. _____ is the attachment of the child to the parent of the opposite sex, accompanied by envious and aggressive feelings toward the parent of the same sex.
44. Oedipus was a mythical Greek king of _____.
45. In Neo-Freudian psychology, the _____, as proposed by Carl Jung in his 'Theory of Psychoanalysis,' is a girl's psychosexual competition with her mother for possession of her father.
46. Who is the father of psychoanalysis?
47. _____ this involves putting together a general statement about a group and a statement establishing something as a member of that group, and draws a conclusion about that member.
48. _____ involves putting together a cause-effect statement (predictions arrived at through induction) and a statement about a specific event, to draw a conclusion about that event.
49. _____ contains rules for ritual geometric constructions that are similar to the Sulba Sutras.

- 50. Traditional cataract surgery was performed with a special tool called the ____.
- 51. A description of binary numbers is found in the works of ____.
- 52. IEEE named ____ as one of the fathers of radio science.
- 53. ____ is a large Neolithic and Chalcolithic site located at the foot of the Bolan pass on the Kachi plain of Balochistan, in modern day Pakistan.
- 54. ____ attributed to Lagadha is considered one of the oldest astronomical texts, dating from 1400–1200 BCE.
- 55. ____ a Sanskrit treatise by Bhoja (11th century), includes a chapter about the construction of mechanical contrivances.
- 56. ____ of northern India issued silver currency bearing Islamic motifs, later imitated by the Mughal empire.
- 57. The Mongols were defeated by ____ of the Delhi Sultanate.
- 58. The Indian Post Office service was established on ____.
- 59. ____ was an Indian physicist known mainly for his work in the field of light scattering.
- 60. The Mars Orbiter Mission, also called ____, was launched on 5 November 2013 by the Indian Space Research Organisation (ISRO).