

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

B.Tech-6th Semester (CSE/IT/ECE/CE/BT/BI)

COURSE CODE (CREDITS): 23B1WHS632 (3)

MAX. MARKS: 35

COURSE NAME: History and Philosophy of Science and Technology

MAX. TIME: 2 Hours

COURSE INSTRUCTORS: Ranjith Kallyani

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question	CO	Marks
Q1	Ramón y Cajal supposed that neurons, with their complex tree-like branches, signalled to one another and formed the working units of the brain. In the early twentieth century many neuroscientists worked to understand the electrical and chemical signalling mechanisms of neurons. But these works provided little insight into how or whether the brain could be the physical basis of the mind. The needed insight came from Alan Turing's Turing machine. How?	CO1	5
Q2	"Both Newtonian and Cartesian world view held the position of infinite universe. However, their reasons behind these positions were different." Justify this statement.	CO3	5
Q3	Newtonians rejected the cartesian position about plenism and argued for vacuism. A major development that contributed to this change was the Magdeburg Hemisphere experiment by Otto von Guericke. How?	CO4	5
Q4	Our systematic knowledge about the physical domain (eg. physics, cosmology, natural philosophy etc.) is the basis for our knowledge about other domains such as life sciences, social sciences etc. Explain the ways in which our understanding about human body is influenced by our understanding about the physical world in Aristotelian world view and ancient Indian world view.	CO2	10
Q5	A per Cartesian dualism, mind is separate from matter. What is your viewpoint about this? What are other important viewpoints about fundamental substance(s)? How would you resolve the mind-matter puzzle in the context of GenAI?	CO5	10