CENTRAL INSTITUTE OF TECHNOLOGY KOKRAJHAR
(Deemed to be University)
KOKRAJHAR :: BTR :: ASSAM :: 783370

END – SEMESTER EXAMINATION
PG

Session: **Janu-June 2025**   Semester: **II**   Time: **3Hrs**. Full Marks: **100**
Course Code: **MCS2A1**   Title: **Indian Knowledge System**

Answer any *five* of the remaining questions

1. What were the scientific advances of the Indus Valley Civilization, and what evidence supports these claims?

20

2. Is the Vedic era a continuation of the Indus Valley Civilization? Justify your answer with appropriate evidence.

20

3. Explain the socio-economic factors that create the need for new inventions. Discuss why the invention of the *airplane* was not feasible during the Vedic period.

10 + 10

4. Discuss the different bricks and their shapes used in Syena-citi with a clear diagram. Discuss any one geometry of a *Vyuha* found in the Mahabharata.

15 + 5

5. Use suitable Vedic math techniques to compute the following.
   (i) 195*197 (ii) 65^2 (iii) 39*54 (iv) $(297)^2$

4 * 5

6. Write down the Aryabhatya's Sloka / Algorithm for computing the Square root of a number. Use your Sloka / Algorithm to compute the square root of 37249. Using the Sloka of Aryabhatya, compute the value of PI (π).

12 + 8

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