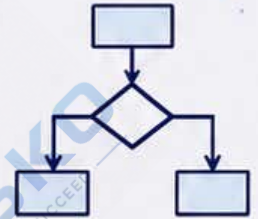
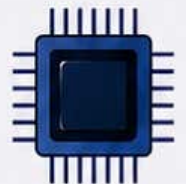


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INSTRUCTIONS



These questions are selected based on previous year university exams.



Practice these questions to understand important concepts deeply.



Focus on frequently asked topics and their variations.



Solve these questions within the given time for better exam preparation.



Revise regularly and test yourself to improve your score.

Practice Smart • Stay Consistent • Score High!



IKS in Computational Science

Most Important Topics

Unit I: Introduction to Indian Knowledge System

Most Important Topics

1. Importance of Ancient Knowledge

Prepare:

- Meaning and importance of ancient Indian knowledge
- Relevance in modern times
- Contributions of ancient India

2. Defining Indian Knowledge System

- Meaning of IKS
- Features and scope of IKS
- Importance of preserving traditional knowledge

3. IKS Corpus and Classification Framework

This is an important theory topic.

4. Chaturdasa Vidyasthana

Very important.

Learn:

- Meaning of **Chaturdasa Vidyasthana**
- Classification of the fourteen branches of knowledge

5. Sanskrit

Prepare:

- Unique aspects of Sanskrit
- Sanskrit grammar
- Phonetics in Sanskrit
- Role of Sanskrit in preserving knowledge

Unit I Priority

IKS Definition → Chaturdasa Vidyasthana → Sanskrit Grammar & Phonetics → Importance of Ancient Knowledge

Unit II: Sanskrit, Science, Engineering and Mathematics

Most Important Topics

1. Computational Concepts in Ashtadhyayi

A very important topic.

Prepare:

- Introduction to **Ashtadhyayi**
- Computational aspects
- Rules and structure of Sanskrit grammar

2. Role of Sanskrit in Natural Language Processing

High-priority topic.

Prepare:

- Relationship between Sanskrit and NLP
- Why Sanskrit grammar is considered systematic
- Applications in computational linguistics

3. IKS in Science, Engineering and Technology

Prepare:

- Contributions of ancient India
- Scientific and technological knowledge in ancient India

4. Ancient Indian Mathematics

🔥🔥 One of the most important topics.

Prepare:

- Importance of mathematics in ancient India
- Great Indian mathematicians

- Their major contributions

5. Number System and its Significance

- Indian number system
- Importance of zero
- Development of arithmetic

6. Algebra, Arithmetic and Geometry

Prepare basic contributions of ancient Indian mathematics in these areas.

Unit III: Indian Number System

Very Important Unit

1. Historical Evidence of the Indian Number System

Prepare:

- Origin and development of Indian numerals
- Historical importance

2. Salient Features of Indian Numerals

- Features of the Indian number system
- Development and importance

3. Concept of Zero

🔥🔥 Extremely important.

Prepare:

- Origin of zero
- Importance of zero
- Contribution of Indian mathematicians
- Use of zero in mathematics

4. Large Numbers and their Representation

Prepare:

- Representation of large numbers

- Place value system

5. Decimal Number System

Very important.

Understand:

- Base 10 system
- Place value
- Importance and development

6. Approaches to Represent Numbers

Unit IV: Measurements and Great Indian Mathematicians

Most Important Topics

1. Measurements

Prepare ancient Indian methods and units related to:

- Time
- Distance
- Weight

2. Unique Aspects of Indian Mathematics

Important theory topic.

3. Great Indian Mathematicians and Their Contributions

🔥🔥 Extremely important.

Focus on the major mathematicians and their contributions.

4. Arithmetic

Prepare basic concepts and ancient Indian contributions.

5. Square of Number

Practice and understand:

- Methods of finding squares
- Ancient approaches, if included in your teaching

6. Square Root

Very important numerical topic.

7. Series and Progressions

Prepare:

- Arithmetic Progression
- Basic mathematical concepts related to series

8. Value of Pi (π)

🔥 Important topic.

Prepare:

- Concept of π
- Indian contributions related to π

9. Algebra

Basic concepts and Indian contributions.

10. Magic Squares in India

Interesting and important theory topic.



Overall Top 15 Most Important Topics

Rank

Topic



1

Concept and Importance of Zero



2

Indian Number System and Decimal System



3

Great Indian Mathematicians and Their Contributions

4

Chaturdasa Vidyasthana

5

Ancient Indian Mathematics

6

Ashtadhyayi and Computational Concepts

7

Sanskrit and Natural Language Processing

8

Unique Aspects of Sanskrit

9

Algebra, Arithmetic and Geometry in Ancient India

10

Measurements of Time, Distance and Weight

11

Value of Pi (π)

12

Square and Square Root

- 13 Series and Progressions
- 14 Magic Squares in India
- 15 IKS in Science, Engineering and Technology

Best Preparation Priority

First Priority 🔥🔥

Zero → Indian Number System → Great Indian Mathematicians → Decimal Number System → Ancient Indian Mathematics

Second Priority ★

Chaturdasa Vidyasthana → Ashtadhyayi → Sanskrit & NLP → Algebra, Arithmetic and Geometry

Third Priority

Measurements → π → Square & Square Root → Series & Progressions → Magic Squares → IKS Classification Framework

For this subject, focus especially on **definitions, historical contributions, concepts, important personalities, and mathematical examples**. Units **II, III, and IV** contain many of the strongest topics for both theory and numerical-based questions.