

**BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE
(AUTONOMOUS)**

I-BBA I-Semester Supplementary Examinations (BR24), Jul - 2025

Indian Science, Engineering and Technology (Past, Present&Future) (BBA)

Time: 3 hours

Max. Marks: 70

*Question Paper consists of Part-A and Part-B
Answer ALL the question in Part-A and Part-B*

PART-A (10X2 = 20M)

	Marks	CO	BL
1.a) What is a <i>tank irrigation system</i>	(2M)	CO1	BL1
b) Write a brief note on the three doshas in Ayurveda.	(2M)	CO1	BL2
c) What are the five elements (<i>Panchamahabhuta</i>) according to ancient Indian philosophy?	(2M)	CO2	BL1
d) What is the significance of gravity in the explanations provided in <i>Lilavati</i> ?	(2M)	CO2	BL1
e) What area of chemistry is Khanda known for contributing to?	(2M)	CO3	BL1
f) Define <i>Saranataila</i> and its role in ancient Indian chemistry.	(2M)	CO3	BL1
g) What is <i>Nadi Matruka</i> land used for in farming?	(2M)	CO4	BL1
h) What is the traditional method of spinning fibers in ancient India?	(2M)	CO4	BL1
i) What is the main focus of Gyan Yoga in Indian tradition?	(2M)	CO5	BL1
j) Name the three gunas (qualities) that affect the mind in Ayurveda.	(2M)	CO5	BL1

PART-B (5X10 = 50M)

2a.	Explain the significance of traditional research practices in ancient India.	(5M)	CO1	BL2
b.	Explain the traditional practices for managing livestock diseases in India.	(5M)		
(OR)				
3a.	Describe the features of traditional crop rotation methods in India.	(5M)	CO1	BL2
b.	Describe traditional methods used in India to predict rainfall.	(5M)		
4a.	Explain the concept of atoms (anu) as described in Vaisheshika Darshan	(5M)	CO2	BL2
b.	Explain the traditional Indian units of distance	(5M)		
(OR)				
5a.	Explain the five elements (Panchamahabhuta) and their characteristics.	(5M)	CO2	BL2
b.	Summarize the major contributions of Bhaskaracharya in Siddhanta Shiromani.	(5M)		
6a.	Who was Vatsyayana, and what is his contribution to Indian science?	(5M)	CO3	BL1
b.	Explain Brahmagupta's concept of zero and its significance.	(5M)		
(OR)				
7a.	Explain Khanda's contribution to the preparation of metals or alloys in ancient India.	(5M)	CO3	BL2
b.	Explain Aryabhata's method of calculating the value of π	(5M)		

- 8a. Explain the significance of cotton production in ancient Indian trade. (5M)
b. Explain the significance of Nadi Matruka land for irrigation and farming. (5M) CO4 BL2
(OR)
- 9 a. Explain the importance of woollen textiles in colder regions of India. (5M)
b. Explain the role of organic manures in enhancing soil fertility. (5M) CO4 BL2
- 10a. Explain the concept of the Pancha Maha Bhutas? (5M)
b. Explain the purpose of Raja Yoga in achieving self-realization. (5M) CO5 BL2
(OR)
- 11a. Explain how the mind influences physical health according to Ayurveda. (5M)
b. Explain how Indian psychological concepts approach emotional well-being. (5M) CO5 BL2
