

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7220

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Unique Paper Code : 3183010022

Name of the Paper : Bridging Ancient Medicine and Practices with Modern Biomedical Research (DSE) Discipline Specific Elective (DSE)

Name of the Course : **B.Sc. (Hons.) Biomedical Science (NEP-UGCF-2022)**

Semester : VIII

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **four** questions in all. Question No. **1** is compulsory.
(Subparts of the questions should be attempted together)
3. Give illustrations and examples wherever required.

Q1

(a) Briefly explain the following (**any four**)

Nature cure, Ayurgenomics, Yog Sutra , Materia Medica, Biopiracy

(b) State true or false and justify your answer (**Any three**)

- i. Ashwagandha is used to manage stress associated with a Vata imbalance.
- ii. Epigenetic markers linked to a person's Prakriti cannot be changed by diet or lifestyle.
- iii. The drug Artemisinin was discovered without any ethnopharmacological background.
- iv. The *Charaka Samhita* is an ancient medical text that primarily focuses on detailed surgical procedures and reconstructive surgery.

(c) A 60-year-old patient is experiencing age-related memory loss, cognitive fatigue, and chronic hypertension. An Ayurvedic assessment identifies a severe Vata imbalance affecting their nervous system. The patient is placed on a holistic, evidence-based protocol that includes specific neuro-nutraceuticals and a daily Yoga routine centered specifically around Savasana and Pranayama. Over four months, the patient reports stabilized blood pressure and significantly improved cognitive function.

P.T.O.

Answer the following questions with justification (**any 3**):

- i. Suggest one evidence-based nutraceutical that could be prescribed to improve memory and cognitive function.
- ii. What is the specific therapeutic benefit of prescribing "Savasana" for this patient?
- iii. According to Ayurvedic food classification, why is it important to specifically target the Vata dosha in this case?
- iv. Give one example of a cardiovascular nutraceutical that could also be added to protect the patient's heart health.

(12,6,6)

Q2

- (a) Discuss the relevance of ancient medical practices in accelerating modern drug discovery. Illustrate your answer by detailing the stages of ethnopharmacological research and its impact on developing new medicines
- (a) Evaluate the applications of yoga practices in managing Arthritis and Cancer (6,6)

Q3

- (a) Discuss the role of ethnopharmacology in modern drug discovery, using the development and therapeutic applications of the antiviral drug Prostratin as a key example
- (b) Differentiate between Nutraceuticals and Pharmaceuticals. Explain how Ayurvedic principles classify foods to target specific dosha imbalances, providing one example for each dosha. (6,6)

Q4

- (a) Write a short note on Panchkosha.
- (b) Briefly explain the use of specific nutraceuticals in the management of neural and cardiovascular disorders. (6,6)

Q5

Write short notes on (**any two**) the following :

- (a) Asanas and Pranayam for health promotion
- (b) Advantages and Disadvantages of Nutraceuticals
- (c) Panch Mahabhoot (2X6 = 12)