

INSTITUTE OF TEACHING AND RESEARCH IN AYURVEDA
[INSTITUTE OF NATIONAL IMPORTANCE]
MINISTRY OF AYUSH, GOVERNMENT OF INDIA

B. PHARM. (AYU.) I YEAR
SHARIRA (ANATOMY AND PHYSIOLOGY)

Question Bank

Section A: (Rachana Sharira)

Topic- 1 Definition & terminology with concept of shadang sharira.

[10marks]

1. Write the definition & terminology with concept of shadang sharira according ayurved & modern science.

[5marks]

Write short note of following:

1. Shadang sharira

[2marks]

1 Answer the question following.

Define shadang sharira-

Write the components of shadang sharira (name only)

Topic-2 Sharira, Shaarira, Koshtha, Aashaya, Sira, Dhamni, Srotasa.

[10marks]

1. Write the definition of “Shaarira & Sharira” according to ayurved & modern science in detail. -
 1. Describe “Aashaya” in detail.
 2. Describe “Sira” in detail.
 3. Describe “Dhamni” in detail. -
 4. Describe “Srotasa” in detail.
 5. Describe “Koshtha” in detail. -
 6. What is Srotasa? Write detail description of pranvaha, raktavaha & purishvaha Srotasa.

[5marks]

1. Explain briefly Aaashya.
2. Types of Aashaya.
3. Explain briefly “Sira”.
4. Explain briefly “Dhamni”.

[2marks]

1. Answer the question following:-
 - a. Names & Number of bahirmukh srotas.
 - b. Names & Number of srotas according to charka.
2. Names & Number of srotas according to sushrut.
3. Write short note of following.
4. Classification of srotas.
5. Importance of srotas.
6. Write the location and srotodushti lakshana of pranvaha srotasa.
7. Write the location and srotodushti hetu of raktavaha srotasa.
8. Definition of sharira.
9. Number & types of sira.
10. Difference between sira & dhamni.
11. srotas (according to sushrut) –
12. Yogavaha srotasa -Srotodushti lakshana. Explain briefly koshta.

Topic- 3 Structure of Cell, Tissue - Types and its functions.

[10marks]

1. Draw the labeled diagram of a cell. Discuss nucleus in detail.
2. Define cell. Enumerate various cell organelles. Describe any two of them in detail
3. Write the types structure, function of tissue.
4. Define tissue. Enumerate type's tissues. Describe connective tissue in detail.
5. Describe structure & function of a cell.
6. Define tissue. Enumerate type's tissues. Describe any two of them in detail.

[5marks]

1. Write short notes of following:
 - A. Nucleus
 - B. Mitochondria
 - C. Ribosome
 - D. Endoplasmic reticulum
 - E. Enlist the components of animal cell.
 - F. Describe parts of cell & explain any two of them in detail.
 - G. Draw the labeled diagram of a cell.
 - H. Types of Epithelial tissue.

[2marks]

- A. Answer briefly of the following:
 1. Define cell.
 2. Enumerate various cell organelles.
 3. Define tissue.
 4. Enumerate types of tissue.
 5. What is neuron? (Nerve cell)
 6. Types of connective tissue.

7. Functions of plasma membrane.
8. Functions of lysosome.
9. Chromosomes.
10. D. N.A.
11. Cartilage.
12. Adipose tissue.
13. Nervous tissue

Topic- 4 Concept of Shukra, Aartav and Garbhavkranti. General Introduction to male and female reproductive systems.

[10marks]

1. Write the Characteristic of shuddha shukra and artava.
2. Explain Garbhavakranti.
3. What is Garbhavakranti? Describe the development of foetus in first three month.
4. Define Garbha. Describe the masanumsika vriddhi of garbh according to ayurved.
5. Describe the development of Garbha in last five months.
6. Describe the terms 'Ritu', 'Kshetra', 'Ambu' and 'Bija' in the reference of Garbhopatti and heredity.
7. Describe the components, structures of the malereproductive system & write about penis in detail with figure.
8. Describe the components, structures of the femalereproductive system & write about uterus in detail with figure.

[5marks]

1. Characteristic of shuddha shukra.
2. Characteristic of shudda artava.
3. Write about male reproductive system.
4. Write about female reproductive system.
5. Garbhavakranti.
6. Umbilical cord.
7. Heredity

[2marks]

1. Define Garbha.
2. Garbhadhan (process of fertilization.)
3. What is 'Douhridini'
4. Shuddha shulra lakshan.
5. Structure of sperm.
6. Structure of ovum.
7. Enlist the organs of male reproductive system.
8. Enlist the organs of female reproductive system.
9. Write the division of urethra.
10. Explain the modern view of bones.
11. Write the numbers & types of bones according to ayurved & modern science.
12. Enumerate bones of skull with short description of each.

Topic- 5 Bones: Numbers, Types according to Ayurveda and Modern science.

[5marks]

- A. Write short notes of following:
1. Types of bones according to ayurved
 2. Types of bones according to modern science.
 3. Classification of bones according to bones according to modern science.
 4. Nalakasthi
 5. Valayasthi
 6. Tarunasthi
 7. Sesamoid bone
 8. Long bone

[2marks]

1. Answer in brief:-
 - a) Write the total numbers & names of bones according to Ayurved & modern science.
 - b) Enlist the name of the bones of the skull.

Topic- 6 General introduction of the systems of the body with special emphasis to location, measurement and external features of the viscera of Digestive, Respiratory, Urinary, Cardiovascular and endocrine system.

[10marks]

1. Explain Respiratory system with figure.
2. Describe the components, structure of Digestive system and write about small intestine in detail.
3. What is respiration? Explain O_2 - CO_2 in detail with diagram.
4. Write the general introduction of systems of the body.
5. Explain urinary system with figure.
6. Describe digestive system with figure.
7. Explain cardiovascular system with figure.
8. What is Endocrine system? Describe endocrine system in detail.
9. Explain about Endocrine system & functions of various endocrine glands.
10. What is an Endocrine gland? Write their name, location & function in health.
11. Write the introduction of Endocrine glands & describe the function of Pituitary gland.

[5marks]

1. Describe internal structure of heart with labelled diagram.
2. Describe essential structure of heart. Ensure your answer includes chambers, valves.
3. Write short notes of following:
 1. Reproductive system.
 2. Immune system
 3. Oesophagus
 4. Stomach
 5. Small Intestine
 6. Spleen
 7. Pancreas

8. Liver
9. Respiratory system
10. Lungs
11. Bronchial Tree
12. Urinary system
13. Kidney with figure
14. Heart with figure
15. IVC
16. SVC
17. Cardiovascular system
18. Testes
19. Ovary
20. Explain briefly endocrine system.
21. Suprarenal gland (Adrenal gland).
22. Thyroid gland.
23. Thymus gland.
24. Pituitary gland.
25. Pancreas.

[2marks]

1. Answer in brief:-

1. Enlist the organs of Digestive system.
2. Enlist the organs of Respiratory system.
3. Enlist the organs of Urinary system.
4. Enlist the organs of cardiovascular system.
5. Location & measurement of large intestine.
6. Duodenum.
7. Location & external features of Pancreas.
8. Location & measurement of Pancreas.
9. Location, measurement & external features of lungs.
10. External features of left lungs.
11. Location, measurement & external features of liver.
12. Location of Pulmonary veins.
13. Location & length of Trachea
14. Pleura
15. Pericardium
16. Endocardium
17. Division of urethra
18. Chambers of the heart
19. Write a note on salivary glands.
20. Nephron
21. Or Write a note on structural and functional unit of kidney
22. Write a note on lymph.
23. Define endocrine system.
24. Write the definition & name of endocrine glands.
25. Enlist the types of glands with name in the body.
26. Write the location & secreted hormone of pineal gland.
27. Write the location & secreted hormone of thyroid gland.
28. Location of thymus gland.

29. Function of adrenal gland.
30. Location of parathyroid gland.
31. Location of pituitary gland.
32. Hormones of pancreas.
33. Insulin hormone.
34. Write the location & secreted hormone of ovary.
35. Write the location & secreted hormone of testes.
36. Difference between right lung & left lung (only two).
37. Difference between small & large intestine (only two).
38. Segments of small intestine.
39. Vas deferens.

Topic-7 Introduction to nervous system and special senses with Ayurvedic view of Gyanendriya.

[10marks]

1. Write the introduction & classification of nervous system, describe autonomic nervous system.
2. Describe about central nervous system
3. Define Gyanendriya. Write the brief introduction about Gyanendriya.
4. Define number, names of Gyanendriya.
5. Describe Chakshurendriya, Shroterendriya according ayurved.
6. Describe the structure of eye according to modern science.
7. Describe the structure of ear according to modern science.
8. Describe the structure of tongue according to modern science.
9. Describe the structure and function of skin according to modern science. 1
10. Describe about various parts of brain & its functions
11. What is Gyanendriya? Describe Ayurvedic view of Gyanendriya.

[5marks]

- A. Write the short note on following:
1. Gyanendriya
 2. Indriya-panchak
 3. Chakshurendriya.
 4. Shroterendriya.
 5. Rasanendriya.
 6. Sparshanendriya.
 7. Rods and cones.
 8. Optic-disc.
 9. Eustachian tube. (Auditory tube)
 10. Midbrain
 11. Thalamus.
 12. Cerebrum
 13. Medulla-oblongata.
 14. Short note on middle ear.
 15. Functions of hypothalamus.
 16. Draw a labelled diagram of human ear.
 17. Classification of nervous system.
 18. Briefly explain central nervous system
 19. Briefly explain Autonomic nervous system

20. Cranial nerves (name only).
21. Spinal nerves.
22. Spinal cord.

[2marks]

1. Explain Cerebro-spinal fluid.
2. Number & names of gyanendriya.
3. Explain Brain stem.
4. Explain Meninges.
5. Write a note on cerebrum.
6. Write the interrelationship of Mahabhuta and Gyanendriya.
7. Enlist main parts of the brain
8. Divisions of nervous system

Section B

Topic-1 Concept of Dosha. Classification, characteristics and importance for physiological function.

[10marks]

1. Explain-“Dosha, Dhatu, Malamulam hi shariram”
2. Define dosha. Describe Nirukti, type's qualities and function of kapha dosha.
3. Write the definition of Dosha, Describe in detail vata dosha with its subtypes, seats and functions.
4. Write Vyutpatti and Nirukti of Vata dosha. Explain locations, functions and importance of five types of Vata dosha.
5. Describe the definition types, subtypes and physiological function of dosha.
6. Write the sites (location) and subtypes of vata dosha in the body.
7. Describe Vata Dosha in detail.
8. Explain Pitta Dosha in detail.
9. Explain Kapha Dosha in detail.

[5marks]

A. Write the short note on following:

1. Classification of Dosha.
2. Write the Guna, karma, Sthana and types of pitta dosha.
3. Explain the sanchaya, Prakota and prashamama of Tridosha in reference of seasons.
4. Types of vata with their location.
5. Types of kapha with their location.
6. Location and function of pranvayu.
7. Location and function of vyan vayu.
8. Location and function of Alochak pitta.
9. Udana vayu.
10. Tarpak-Kapha
11. Bodhak Kapha
12. Shleshak Kapha

[2marks]

1. Types of vata Dosha.
2. Function of Alochak pitta.
3. Location of Udana vayu.
4. Location of vyan vayu.
5. Seats and functions of Apana vayu.

Topic II

General introduction of Dhatu, Updhatu and Mala. Nourishment of Dhatu with different Nyaya. Introduction of blood and its components like WBC, RBC, Platelets, Haemoglobin and Plasma.

[10marks]

1. What is Mala? Why the Mala is accepted as a moola of sharira? Explain various dhatu mala and its importance's.
2. Describe Dhatumala in detail.

[5marks]

1. Write the short note on following:
 1. Write the dhatu and their updhatu.
 2. Functions of dhatu.
 3. Brief introduction of dhatu.
 4. Brief introduction of updhatu.
 5. Dhatuposhananyaya.
 6. Khalekapotnyaya.
 7. Ksheeradhahinyaya.
 8. Kedarikulyanyaya.
 9. Ek-kala-Dhatuposhananyaya.
 10. Types and functions of Snayu.
 11. Explain Dhatu mala
 12. Explain Red Blood Cells.
 13. Explain White Blood Cells.
 14. Introduction of blood.
 15. Haemoglobin.
 16. Platelets.
 17. Functions of blood.
 18. Enlist the Agranulosites WBC.
2. Write the short note on following:
 1. Explain Mala.
 2. Describe "Mala" in detail.
 3. Write the Definition, classification, characteristics, functions and importance of mala.
 4. Write the definition of Dhatu & Updhatu. Describe Rakta dhjatu in detail.
 5. Describe Dhatu in detail.
 6. Describe the formation of Majja dhatu.
 7. Explain Updhatu.
 8. Describe Classification, Functions and Importance of Updhatu.
 9. Describe about various Dhatu-poshananyaya.
 10. Write the types of Nourishment of Dhatu. Describe "Khalekapotnyaya".

11. Describe Dhatu-poshana karma with the help of different dhatu poshnanyaya.
12. Write about Ek-kala-dhatu poshananyaya and Ksheeradhahinyaya.
13. Write about khalekapotanyaya and kedarikulyanyaya.
14. What is blood? Write the components & functions of blood.
15. Explain “Blood” in detail.
16. Classify WBCs and write about its functions.
17. Write functions of red blood cells and white blood cells.

[2marks]

1. Answer briefly of the following:-
 - a. Define Dhatu.
 - b. Define Updhatu.
 - c. Rasa dhatu.
 - d. Medo- dhatu.
 - e. Mansa-dhatu.
 - f. Majja-dathu.
 - g. Sudha Rakta-lakshana.
 - h. Majjakshaya- lakshana.
 - i. Functions of kandara.
 - j. Types of Snayu.
 - k. Write the number of Updhatu.
 - l. Deference between khalekapotnyaya and kedarikulyanyaya.
 - m. Enlist Dhatu and Dhatu mala.
 - n. Enlist the types of white blood cells.
 - o. Enlist the composition of blood.
 - p. Functions of RBC.
 - q. Functions of platelets.
 - r. Write the classification of Mala.
 - s. Write the functions of Mala.
 - t. Write the sweda kshaya lakshana.
 - u. Write the Mutra vridhi lkshana.
 - v. Definition of Mala.

Topic-3 Ayurvedic concept of Ojus and vyadhikshamatva. Introduction to Immunity.

[10marks]

1. What is ojus? Describe its quality, quantity, types, functions and vikriti.
2. What is “Ojus” and what is called ojevikriti? Explain the functions and Importance of ojus.
3. Write the definition of ojus & write its types,quqntity, quality & role in vyadhikshamatva.
4. What is Vyadhikshamatva? Write the types of vyadhikshamatva & relation with ojus.
5. Explain vyadhikshamatva in detail.
6. Describe “Immunity”.

[5marks]

- B. Write the short note on following:

- a. Ojovikriti.
- b. Ojus.
- c. Immunity.
- d. Vyadhikshamatva.

[2marks]

- 1 Answer briefly of the following:-
 - a. Define Ojus.
 - b. Types of ojus.
 - c. Symtoms of ojokshaya.
 - d. Ojovyapad lakshana.
 - e. Ojovistramsa lakshana
 - f. Para ojus.
 - g. Aparas- ojus. (shleshmik ojus)
 - h. Introduction of ojus.
 - i. Types of Immunity.
 - j. Write an essay on ojus.

Topic-IV. Detail Concept of Agni. Classification and importance. Ayurvedic and modern concept of digestion and metabolism.

[10marks]

1. What is Agni? Describe in detail.
2. Write the classification and functions of Agni. What is the role of Agni according to Ayurved?
3. Describe about Agni and modern concept of digestion.
4. What is Agni? Write its classification and describe Bhutagni & Dhatvagni in detail.
5. Write about Metabolism in detail.

[5marks]

1. Write short note on following:
 - a. Introduction of Agni.
 - b. Jatharagni.
 - c. Dhatvagni.
 - d. Bhutagni.
 - e. Definition and characteristics of Vishmagni.
 - f. Metabolism.

[2marks]

- 1 Answer briefly of the following:-
 1. Classification of Agni. (Name only)
 2. Jatharagni.
 3. Bhutagni.
 4. Definition of vipaka.
 5. Avasthapaka.
 6. Nishthapaka.
 7. Write the types of Jatharagni on the basis of Balabheda.

Topic-5. functions of Respiratory, Urinary, Cardiovascular, Nervous & Endocrine system.

[10marks]

1. What is system? Write the number of systems of the body with their components & functions.
2. Explain the functions of Respiratory, Urinary, Cardiovascular, Nervous & Endocrine system.

[5marks]

1. Write the short note on following:
 - a) Functions of Nervous system
 - b) Functions of endocrine system.

[2marks]

1. Answer briefly of the following:-
 - a) Functions of respiratory system.
 - b) Functions of Urinary system.
 - c) Functions of Cardiovascular system.