

Question Booklet No.

(To be filled up by the candidate by **blue/black ball-point pen**)

Roll No.

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Roll No. (Write the digits in words)

Serial No. of OMR Answer Sheet

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES(Use only **blue/black ball-point pen** in the space above and on both sides of the **Answer Sheet**)

1. Within 10 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope*.
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet No. on the Question Booklet.*
7. *Any changes in the aforesaid-entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed.* If you *do not wish to attempt* a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).
11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
12. Deposit *both OMR Answer Sheet and Question Booklet* at the end of the Test.
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

Total No. of Printed Pages : **15**

1. Plants receive their nutrients from ?

- (1) Chlorophyll (2) Atmosphere
(3) Light (4) Soil

2. Common name of washing soda is :

- (1) Sodium Carbonate
(2) Calcium bicarbonate
(3) Sodium bicarbonate
(4) Calcium carbonate

3. Which of the gas is not known as green house gas ?

- (1) Methane (2) Nitrous oxide
(3) Carbon Dioxide (4) Hydrogen

4. Hardness of water can be removed by adding ?

- (1) Chlorine
(2) Washing Soda
(3) Potassium Permanganate
(4) Bleaching Powder

5. Which scientist discovered the radio active element 'Radium' ?

- (1) Isaac Newton (2) Albert Einstein
(3) Benjamin Franklin (4) Marie Curie



6. The word 'Satyamev Jayate' inscribed below the base plate of the emblem of India are taken from :
- (1) Rigveda
 - (2) Satapatha Brahmana
 - (3) Mundaka Upanishada
 - (4) Ramayana
7. The absorption of ink by blotting paper involves :
- (1) Viscosity of ink
 - (2) Capillary action phenomenon
 - (3) Diffusion of ink through the blotting
 - (4) Syphon action
8. Combination of Satva, Atma and Sharir is known as :
- | | |
|--------------|--------------|
| (1) Tridosh | (2) Trimarma |
| (3) Trisutra | (4) Tridanda |
9. All are the types of Kapha except :
- | | |
|--------------|-------------|
| (1) Sleshaka | (2) Kledaka |
| (3) Bodhaka | (4) Sadhaka |
10. Upanishadas are in number ?
- | | |
|--------|---------|
| (1) 8 | (2) 18 |
| (3) 51 | (4) 108 |



- 11.** Meniere's disease results from an increased amount of
1. Endolymph
 2. Cerebro Spinal Fluid
 3. Pericardial Fluid
 4. Semen
- 12.** T cells that display CD 8 develop in to
1. Helper T cells
 2. Cytotoxic T cells
 3. Memory T cells
 4. NK cells
- 13.** The lower the amount of oxyhemoglobin, the higher is the carbon dioxide carrying capacity of the blood. This relationship is known as
1. Bohr's effect
 2. Frank Starling Law
 3. Haldane effect
 4. Wolf Chaikoff effect
- 14.** The pH of semen is
1. 7.2 - 7.7
 2. 5.2 - 5.8
 3. 9.5 - 10
 4. 4 - 4.5
- 15.** Glucagon activates all of the following enzymes except
1. Glycogen Phosphorylase
 2. Protein Kinase
 3. Glycogen Synthase
 4. Phosphorylase Kinase
- 16.** During the second day of a fast, after liver glycogen is depleted, blood glucose
1. Is derived mainly from fatty acids of adipose tissue.
 2. Is derived mainly from muscle glycogen.
 3. Is derived mainly from the amino acids of liver proteins.
 4. Is derived mainly from the amino acids of muscle proteins.
- 17.** An enzyme affects the rate of a chemical reaction by
1. Decreasing the free energy of the reaction.
 2. Increasing the free energy of the reaction.
 3. Lowering the energy of activation of the reaction.
 4. Raising the energy of activation of the reaction

18. All of the following processes occur in the mitochondria of the mammalian cell EXCEPT

1. Fatty acid biosynthesis
2. Beta oxidation of fatty acids
3. The citric acid cycle
4. Ketogenesis

19. Urea is the product of an enzyme in liver which catalyzes the hydrolysis of

1. Carbamoyl phosphate
2. Arginine
3. Ornithine
4. Argininosuccinate

20. Which one of the following statements about protein structure is correct?

1. The formation of a disulfide bond in a protein requires that the two participating cysteine residues be adjacent to each other in the primary sequence of the protein.
2. The stability of tertiary structure in proteins is mainly due to covalent bonds among the subunits.
3. Denaturation of proteins is induced by temperatures below the temperature optimum.
4. The information for the correct folding of a protein is contained in the specific sequence of amino acids in the primary structure.

21. "धात्वो हि धात्वाहारः प्रकृतिमनुवर्तन्ते" is referred from

1. Ch.Su.10
2. Ch.Su.28
3. Ch.Su.30
4. Ch.Sh.5

22. रसस्तु हृदयं याति समान मारुतेरितः is explained by

1. Sharangadhara
2. Charaka
3. Kashyapa
4. Bhela

23. दौर्बल्यं मुखशोषश्च पाण्डुत्वं सदनं श्रमः are the symptoms of

1. Shukra kshaya
2. Meda kshaya
3. Rasa kshaya
4. Rakta Vrddhi

24. How many sites of Ojas have been mentioned by Acharya Bhela?

1. 2
2. 8
3. 4
4. 12

25. पित्तस्यामाशयः स्वेदो रक्तं सह लसीकया। are the site of pitta according to

1. Sushruta
2. Kashyapa
3. Sharangadhar
4. Vagbhatta

26. The physiology of urine formation has been mentioned in

1. Sushruta Nidana Sthana
2. Sushruta Sutra Sthana
3. Charaka Nidana Sthana
4. Kashyapa Khilla Sthana

27. The correct method of writing 'विज्ञान' and 'प्रकृति' according to the International Alphabet of Sanskrit Transliteration (IAST) scheme is:

1. Vigyāna, Prakriti
2. Vijñāna, Prakṛti
3. Vidnyāna, Prakruti
4. Vignana, Prakriti

28. In a recent study based on the constitutional types defined in Ayurveda, the involvement of EGLN1 has been revealed in relation to the following:

1. Low-temperature adaptation
2. High-altitude adaptation
3. High-pressure adaptation
4. High-temperature adaptation

29. In a study by Udupa KN and others (1975) the normal persons with features of Vāta, Pitta and Kapha constitutions have been reported to exhibit a relative preponderance of the following:

1. Serum insulin, rennin and erythropoietin levels, respectively
2. Blood Cholinesterase, Monoamine oxidase and Histaminase activity, respectively
3. Blood Thyroxine, Adrenaline and Testosterone levels, respectively
4. Hemoglobin, blood pressure and pain sensitivity, respectively

30. What are the internationally accepted 'essential components' of a research report?

1. Introduction, Tables and figures and Conclusion in the same order
2. Introduction, Methods, Result and Discussion in the same order
3. Abstract, Methods, Observations and Statistical analysis in the same order
4. Introduction, Figures, Tables, Statistics, Summary and Discussion in the same order



- 31.** Ambuvaha Srotāmsi, Svedavaha Srotāmsi and Doṣavaha Srotāmsi are the seats of
1. Rañjaka Pitta
 2. Prāṇa Vāyu
 3. Samāna Vāyu
 4. Kledaka Kapha
- 32.** Hr̥daya is functionally related with the following:
1. Bodhaka Kapha, Apāna Vāyu and Asthi Dhātu
 2. Sādhaka Pitta, Vyāna Vāyu, Rasa Dhātu, Avalambaka Kapha, Ojas and Prāṇa Vāyu
 3. Meda Dhātu, Tarpaka Kapha, Pācaka Pitta, Kledaka Kapha
 4. Majjā Dhātu, Śukra Dhātu, Asthi Dhātu, Mūtra
- 33.** Meda Kṣaya may lead to the manifestation of the following:
1. Plīhābhivṛddhi, Sandhiśūnyatā, Raukṣya
 2. Yakṛt vṛddhi, Sandhi sphuṭana, Asya vairasya
 3. Indriya Daurbalya, Arocaka, Ajīrṇa
 4. Grahaṇī, Arśa, Udara, Atīsāra
- 34.** Sasneha, Tikṣṇa, Uṣṇa, Drava, Amla, Sara are the attributes of
1. Pitta
 2. Agni
 3. Oja
 4. Śukra
- 35.** Kaṣāya - Svādu - Tiktāḥ
1. Jayanti Vātam
 2. Jayanti Pittam
 3. Jayanti Kapham
 4. Jayanti Rasam
- 36.** The kind of adrenergic receptors present in Juxta Glomerular Cells are:
1. α1
 2. β2
 3. β1
 4. α2
- 37.** Hyaluronic acid is not found in:
1. Vitreous humor
 2. Connective tissue
 3. Synovial Fluid and tendons
 4. Gastric juice

38. Which of the following substances are not increased during starvation?

1. Ketone Bodies
2. Glucagon
3. Epinephrine
4. Blood glucose

39. Which compound is excreted in urine in the vitamin B-12 deficiency?

1. Methyl malonic acid
2. Homocysteine
3. Xanthuric acid
4. Glutamic acid

40. "Ṣaṣṭhī Pittadharā kalā is located in between Āmāśaya and Pakvāśaya and is also known as Grahaṇī" is stated in:

1. Caraka Saṃhitā
2. Suśruta Saṃhitā
3. Aṣṭāṅga Hṛdaya
4. Aṣṭāṅga Saṅgraha

Attempt any five questions. Write answer in 150-200 words. Each question carries 16 marks. Answer each question on separate page, after writing Question Number.

1. In what circumstances do you apply Paired T test, Independent T test and One-way ANOVA?
2. Write the important features of the process of *Rasa Saṃvahana* as explained in Ayurveda textbooks.
3. Translate the following verse:
यदन्नं देहधात्वोजोबलवर्णादिपोषकम्।
तत्राग्निर्हेतुराहारान्नहयपक्वाद्रसादयः॥५॥
4. Write the symptoms of Hyperthyroidism
5. What is Correlation coefficient?
6. Write the features of Pitta Prakṛti individuals
7. Describe Hering –Breuer Reflex
8. Write the names of any four gastrointestinal hormones
9. Write the features of Rakta Vṛddhi.
10. Write the functions of Pācaka Pitta

