

Roll No.

Institute of Teaching and Research in Ayurveda

Ph.D. Entrance Examination - 2025

(3rd May 2025)

Paper - II

Subject

Dravya Guna Vigyana.



**For admission in
Ayurvidyavaridhi (Ph.D.-Ayurveda)**

Conducted by:
Institute of Teaching and Research in Ayurveda
Jamnagar - 361008
Gujarat, India

Note:

1. Candidates are instructed to **NOT TO OPEN** the question booklet till said to do so.
2. Candidates are advised to read the instructions provided at last page of this question booklet carefully, before answering the questions.

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- According to Acharya Bhavamishra, what are the characteristics that indicate the best quality of हरीतकी?

(A) It should be compact, heavy, double in weight to *Terminalia bellirica*
 (B) It should be soft, light, and equal in weight to *Terminalia bellirica*

(C) It should be compact, round, half in weight to *Terminalia bellirica*
 (D) It should be heavy, dry, oval, double in weight to *Terminalia bellirica*
- ‘उष्णवीर्य हिमःस्पर्श’ properties are attributed to _____

(A) वत्सनाभ
 (B) कोद्रव
 (C) बिभीतक
 (D) भल्लातक
- चटकाशिर is the synonyms of _____

(A) पिप्पली
 (B) पिप्पलीमूल
 (C) मरीच
 (D) कङ्कोल
- Which of the following hormones is most commonly used to induce root formation in plant tissue culture?

(A) Cytokinin
 (B) Auxin
 (C) Gibberellin
 (D) Abscisic acid
- Which of the following best describes a hypanthodium inflorescence, as seen in *Ficus* species?

(A) A flat-topped cluster with sessile flowers
 (B) A fleshy, hollow receptacle with flowers inside
 (C) A branched raceme with multiple panicles
 (D) A spike with sterile and fertile flowers alternately arranged
- According to Acharya Bhavamishra, which drug possesses मादिनि गुरु properties?

(A) ज्योतिष्पती
 (B) भङ्ग
 (C) पारसिक यवानी
 (D) अहिफेन
- Which type of चन्दन is specifically attributed with the property of ‘विशेषात् दाहनाशनम्’ according to Bhavaprakasha?

(A) श्वेत चन्दन
 (B) रक्त चन्दन
 (C) हरि चन्दन
 (D) पतङ्ग
- According to Acharya Bhavamishra, शाल निर्यास is also known as _____

(A) कुन्दरु
 (B) सर्जरस
 (C) सरल
 (D) शिलारस
- The floral buds or inflorescence of which plant species are commercially available under the traditional trade name “फूलप्रियङ्गु”?

(A) *Callicarpa macrophylla*
 (B) *Prunus mahalab*
 (C) *Aglaia roxburghiana*
 (D) *Calophyllum inophyllum*

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10. Botanical name “*Justicia gendarussa* Burm. f’ is _____

(A) कृष्ण वासा (B) जलवेतस
(C) रक्तपुष्प वासा (D) वेतस

11. According to Acharya Bhavamishra, which plant is having “शुक्रहत्” property?

(A) त्रिपुष्प (B) कालिङ्ग
(C) गुवाक (D) ताल

12. What is the term for a patent granted under the Indian Patent Act, 1970 (post-2005 amendment)?

(A) 15 years from the date of grant (B) 20 years from the date of filing
(C) 20 years from the date of grant (D) 15 years from the date of grant

13. Which metabolic pathway is targeted in genetic modified *Ashwagandha* to boost withanolide production?

(A) Flavonoid biosynthesis pathway (B) Terpenoid/steroid biosynthesis pathway
(C) Shikimate pathway (D) Phenylpropanoid pathway

14. According to Bhavaprakasha, which drug possesses the property of disintegrating an iron needle (लोहसुचिद्रवत्वकृत)?

(A) वृक्षाम्ल (B) आम्लिका
(C) अम्लवेतस (D) निम्बु

15. त्रिकोण फल is synonym of _____

(A) *Trapa bispinosa* (B) *Grewia asiatica*
(C) *Cicca acida* (D) *Amaranthus viridis*

16. Which of the following plants is classified as a holoparasites?

(A) *Vanda roxburghii* (B) *Cuscuta reflexa*
(C) *Dendrophthoe falcata* (D) *Viscum album*

17. New leaves of कमल is known as _____

(A) बिस (B) किञ्जल्लक
(C) कर्णिका (D) संवर्तिका

18. मनुष्यादि and सिंहादि वर्ग have been introduced by _____

(A) मदन निघण्टु (B) भावप्रकाश निघण्टु
(C) राज निघण्टु (D) धन्वन्तरि निघण्टु

19. As per the राज निघण्टु, त्रिकदम्ब comprises of _____

(A) कदम्ब, धारा कदम्ब and धूलि कदम्ब (B) धारा कदम्ब, धूलि कदम्ब and भूमि कदम्ब
(C) कदम्ब, धारा कदम्ब and भूमि कदम्ब (D) कदम्ब, धूलि कदम्ब and भूमि कदम्ब

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20. What is the main difference between efficacy and potency?

(A) Efficacy is related to concentration for drug effect; potency is related to response

(B) Potency refers to maximum effect; efficacy refers to concentration of activity

(C) Potency is the dose needed for an effect; efficacy is the drug's capacity to produce the effect

(D) There is no difference

21. Which is true among following statements:

(A) Nutraceuticals are always taken in food form

(B) Nutraceuticals are defined as modified foods that provide additional health benefits beyond basic nutrition

(C) Nutraceuticals are often isolated or purified bioactive compounds

(D) Functional foods are often isolated or purified bioactive compounds and converted in to medicinal dosage form.

22. As per the राज निघण्टु, 'ज्वरहारि भ्रमप्रद' is *Karma* of _____

(A) धूतूर

(B) वसनाभ

(C) करवीर

(D) ताल

23. As per Chakrapani's commentary on Charak Samhita, बिल्व and अग्निमन्त्र exemplify which category of वीर्य within the त्रिविध वीर्य framework?

(A) मृदु

(B) मध्य

(C) तीक्ष्ण

(D) अल्प

24. According to Acharya Charaka, अश्वगस्ता is categorized under _____ स्कन्ध.

(A) मधुर

(B) कटु

(C) तिक्त

(D) कषाय

25. Which of the following best describes the concept of "flip-flop" kinetics in pharmacokinetics?

(A) A drug with zero-order absorption and first-order elimination

(B) A drug with first-order absorption and zero-order elimination

(C) A situation where the rate of absorption is slower than the rate of elimination

(D) A drug that switches metabolic pathways after a threshold dose

26. The Area Under Curve (AUC) is inversely proportional to the _____ of the drug

(A) Dose of the drug

(B) Half-life

(C) Clearance

(D) Bioavailability

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27. The drugs लोध, प्रियङ्गु, and कटफल are categorized under which महाकषाय as per Charaka Samhita?

(A) वण्य (B) सन्धानीय
(C) पुरीषसङ्ग्रहणीय (D) मूत्रसङ्ग्रहणीय

28. According to Acharya Charaka, which drug is considered the foremost for performing दीपनीय पाचनीय साङ्ग्राहिक सर्वदोषहरणाम् actions?

(A) पिप्पलिमूल (B) कद्वङ्ग
(C) बिल्व (D) अतिविषा

29. Which of the following is NOT a constituent of the आमलक्यादि गण as described in the Sushruta Samhita?

(A) चित्रक (B) पिप्पली
(C) बिभितक (D) हरीतकी

30. The "Therapeutic Index" (TI) is used to assess _____

(A) The potency of a drug (B) The safety margin of a drug between therapeutic and safety doses
(C) The duration of action of a drug (D) The rate of metabolism of a drug in the liver

31. According to Acharya Sushruta, वचादि and सुरसादि गण possess _____ action.

(A) वात संशमन (B) पित्त संशमन
(C) श्लेष्म संशमन (D) सर्वदोषहर

32. वृष्ट-पित्त-अनिलापह is properties of _____ Mishraka Varga.

(A) तृण पन्चमूल (B) मध्यम पन्चमूल
(C) जीवनीय पन्चमूल (D) वल्ली पन्चमूल

33. In which *Nighantu*, the chapters are titled according to the plant's habit or morphological characteristics?

(A) सिद्धमन्त्र निघण्टु (B) निघण्टु शेष
(C) सरस्वती निघण्टु (D) शब्दकल्पद्रुम

34. The action of स्तन्यशोधन and लेखन are attributed to which रस as per Charaka Samhita?

(A) अम्ल (B) लवण
(C) कटु (D) तिक्त

35. In which of the following extraction methods, a solvent is repeatedly passed over the solid material to extract its constituents?

(A) Soxhlet extraction (B) Cold maceration
(C) Percolation (D) Ultrasonic-assisted extraction

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36. According to Kashyapa Samhita, in case of पित्तज रोग, the sequence of *Rasa* for therapeutic application should be _____.

(A) मधुर तिक्त कषाय (B) तिक्त मधुर कषाय
(C) कषाय मधुर तिक्त (D) तिक्त कषाय मधुर

37. According to कर्मवीर्यवाद of Acharya Nimi, रोपण क्रम is due to _____ महाभूत.

(A) पृथ्वी जल अनिल (B) पृथ्वी जल अनल
(C) जल, आकाश, पृथ्वी (D) आकाश, वायु, जल

38. Which Schedule of the Drugs and Cosmetics Act, 1940, specifies the requirements for Good Manufacturing Practices (GMP) for the manufacture of Ayurveda drugs?

(A) Schedule P (B) Schedule Q
(C) Schedule O (D) Schedule T

39. Which statement/s among following is/are true and proves dominance of *Virya* on *Rasa* considering 'अष्टविध वीर्य' ?

i- वातहर action of पलाण्डु is through सिंध वीर्य
ii- पित्तहर action of आमलकी is through सिंध वीर्य
iii- कफहर Action of कपिल्य is through उष्ण वीर्य
iv- वातहर action of कुलत्य is through उष्ण वीर्य

(A) Only i (B) Only i and ii
(C) i, ii, and iii (D) i, ii, iii and iv

40. According to Acharya Charaka, during which season should the कन्द be collected?

(A) ग्रीष्म (B) शरद
(C) वसंत (D) शिशिर

41. According to Charaka, तिनिश is habitant of _____ देश.

(A) आनुप (B) जाङ्गल
(C) साधारण (D) मरु

42. Which substance is employed for the शोधन of रक्तचित्रक मूल?

(A) चिन्नास्वरस (B) चूर्णोदक
(C) अजाक्षीर (D) आद्रक स्वरस

43. The drug administration time 'सामुद्र' is recommended for _____ as per Acharya Charaka.

(A) अपानवायु दुष्टि (B) उर्ध्वजनुज विकार
(C) कंप आक्षेपक (D) हिक्का

44. The logo shown in the image  is officially designated for which of the following?

(A) Ayush Ahara (B) Saundraya Prasadhanam
(C) Ayurveda herb extracts (D) Ayurveda Nutraceuticals

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45. Which drug is NOT recommended to be used in fresh condition as per Sharangadhara Samhita?

(A) मरीच (B) गुग्गुल
(C) विड़ङ्ग (D) गुद्धची

46. According to Acharya Sharangdhara, which drug exhibits शुक्र रेचन property?

(A) जातिफल (B) हरीतकी
(C) बृहति फल (D) कलिङ्ग

47. _____ serves as a chemotaxonomic marker to classify members of the Solanaceae family.

(A) Tropane (B) Raphides
(C) Phenolic acids (D) Phenylpropanoids

48. What is the prescribed मात्रा (dose) of प्रक्षेप द्रव्य such as मधु and गुड in स्वरस कल्पना as per Sharangadhara Samhita?

(A) 1 पल (B) 1 कोल
(C) 1 कर्ष (D) 1 माष

49. In the absence of लाङ्गूलि, which alternative drug is recommended as a substitute according to Acharya Bhavamishra?

(A) पुष्करमूल (B) कुष्ठ
(C) दारुहरिद्रा (D) वत्सनाभ

50. The plant *Flickingeria nodosa* is used as the alternative source for which medicinal drug in some regions of India?

(A) वेतस (B) मूर्व
(C) रेणुका (D) जीवन्ती

Rough work

GENERAL INSTRUCTIONS
Ph.D. Entrance Exam 2025
Institute of Teaching and Research in Ayurveda
Jamnagar, Gujarat – 361008

1. The written Test for 100 marks is consists of MCQs of one mark each.
2. There will be $1/4^{\text{th}}$ negative marking for incorrect answer.
3. The duration of the entrance test is 90 minutes i.e. 09.30 AM to 11.00 AM
4. The candidates are instructed to fill their Roll no. in the respective columns of OMR sheet and on Question booklet carefully.
5. Candidates are advised to use **black ball pen** for filling the information columns and marking answers.
6. Correct Method for marking answers is A B C D
7. After opening the question booklet; the candidate are instructed to confirm 1 to 50 MCQs in each booklet in a sequence. Any discrepancies in this regard should immediately be reported to the Room Supervisor / Examination Center Superintendent.
8. Candidates will not be allowed with Books, Notes, Bags, Mobiles, Pageers or any other type of electronic device inside the examination center.
9. Don't mark or write anything on the question booklet except on the page given for rough work.
10. If there is any ambiguity against the question, it should be submitted to the Examination Center Superintendent before 05:00 pm on the day of examination (3rd May, 2025); after that no such complaint will be entertained.
11. Answer Key, Result and Merit will be displayed on <https://itra.ac.in>. No separate mark sheets or call letter for interview will be posted.
12. Decision of 'Ph.D. Admission Committee' will be final in any discrepancy.