

Roll No

Institute of Teaching and Research in Ayurveda

Ph.D. Entrance Examination - 2025

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Paper - II

Subject

Rasa Shastra Evam Bhaishajya Kalpana



**For admission in
Ayurvedyavaridhi (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.

1. What should be the quantity of liquid dosage forms for आलोडन of 1 Karsha of Churna for internal administration as per Ashtanga Samgraha?
(A) 3 Pala (पल) (B) 1 Pala (पल)
(C) 2 Pala (पल) (D) 4 Pala (पल)
2. As per Sharangdhara Samhita, what is required quantity of “क्वाथ्य द्रव्य” for Snehapaka of 1 Prastha Tila Taila with only one Kwatha?
(A) 4 Prastha (प्रस्थ) (B) 1 Prastha (प्रस्थ)
(C) 1/6th Prastha (प्रस्थ) (D) 2 Prastha (प्रस्थ)
3. As per Sharangdhara Samhita, for preparation of Kwatha for Vamana Karma, what should be the ratio of क्वाथ्य द्रव्य: जल: derived क्वाथ?
(A) 1:16:8 (B) 1:16:2
(C) 1:8:1 (D) 1:16:4
4. Which of the following Avaleha Khandapaka Kalpa (अवलेह, खण्डपाक कल्प) contains milk?
(A) अमृत भल्लातक अवलेह (भैषज्य रत्नावली), नारिकेल खण्डपाक (शारङ्गधर संहिता)
(B) नारिकेल खण्डपाक (शारङ्गधर संहिता), कुष्माण्डावलेह (शारङ्गधर संहिता)
(C) सौभाग्यशुण्ठी पाक (भैषज्य रत्नावली स्त्रिरोगाधिकार), हरिद्रा खण्डपाक (भैषज्य रत्नावली, शीतपित्त उदर रोगाधिकार)
(D) हरिद्रा खण्डपाक (भैषज्य रत्नावली, शीतपित्त उदर रोगाधिकार), नारिकेल खण्डपाक (शारङ्गधर संहिता)
5. What is not included under schedule E1 list of Ayurvedic drugs as per D & C act 1940 and Rules there under?
(A) Seeds of *Cannabis Sativa* L. and *Papaver Somniferum* L. (B) Leaves of *Cannabis Sativa* L. and exudates of *Papaver Somniferum* L.
(C) Exudates of *Cannabis Sativa* L. and leaves of *Papaver Somniferum* L. (D) Poppy straw of *Papaver Somniferum* L. and exudates of *Cannabis Sativa* L.
6. What is duration of Swedana of Gandhaka in Godugdha for Shodhana as per Rasaratna Samucchaya?
(A) 1 प्रहर (B) 3 प्रहर
(C) 3 घटी (D) 1 घटी
7. Find out correct features of Kala Loha (काल लोह) as per Rasaratna Samucchaya.
(A) “भङ्गे पारदवच्छविः”, “नमने भङ्गुरं” (B) “नीलकृष्णप्रभम्”, “लोहाघातेऽप्य भङ्गात्मधारं”
(C) “नमने भङ्गुरं”, “लोहाघातेऽप्य भङ्गात्मधारं” (D) “नील कृष्ण प्रभम्”, “नमने भङ्गुरं”

8. Match the following as per Rasaratna Sammucchaya
- | | |
|--|---|
| i. <i>Kshara</i> (क्षार) | a. <i>Malaharana</i> (मलहरण) |
| ii. <i>Amla Dravya</i> (अम्ल द्रव्य) | b. <i>Mandyaharana</i> (मान्द्यहरण) |
| iii. <i>Visha Dravya</i> (विष द्रव्य) | c. <i>Shodhana, Jarana</i> (शोधन जारण) |
| iv. <i>Sneha Dravya</i> (स्नेह द्रव्य) | d. <i>Imparting Snaigdhya</i> (स्नैग्ध्य) |
- (A) i-a, ii-c, iii-b, iv-d (B) i-b, ii-a, iii-c, iv-b
(C) i-a, ii-b, iii-c, iv-d (D) i-c, ii-a, iii-b, iv-d
9. Which *Lavana* is in highest quantity in *Bhaskara lavana Churna* mentioned in Sharangdhara Samhita?
- (A) *Saindhava* (सैन्धव) (B) *Samudra* (सामुद्र)
(C) *Bida* (बिड) (D) *Sauvarchala* (सौवर्चल)
10. Which option is correct in context to *ग्राह्यत्व* of *Swarna* (स्वर्ण) as per Ayurved Prakasha and Ayurvedic Pharmacopoeia of India (API)?
Statement i: "दाहे रक्तं", "सितं छेदे" "निकषे कुम्कुमप्रभं", "तारशुल्बोज्झितम्"
Statement ii: *Swarna* should contain not less than 99.5% of Gold analyzed by Atomic absorption spectrometer.
- (A) Statement i is correct and ii is incorrect (B) Both the statements are correct
(C) Statement ii is correct but i is not (D) Both the statements are incorrect
11. What is increasing order of hardness of minerals as per Ayurvedic Pharmacopoeia of India?
- (A) Gypsum (Selenite) < Calcite < Gairika, Red Ochre (not rattle) < Tourmaline
(B) Gairika, Red Ochre (not rattle) < Calcite < Gypsum (Selenite) < Tourmaline
(C) Gairika, Red Ochre (not rattle) < Gypsum (Selenite) < Calcite < Tourmaline
(D) Gypsum (Selenite) < Gairika, Red Ochre (not rattle) < Calcite < Tourmaline
12. What should be recommendations for "पथ्य पालन" and लङ्घन" after consumption of *Rasakalpa* (रसकल्प) as per Rasarnava?
- (A) पथ्यं मुहुर्तद्वये नोल्लङ्घयेत् त्रियामम् । (B) पथ्यं यामद्वयाधिके नो ल्लङ्घयेत् त्रियामं तु ।
(C) पथ्यं मुहुर्तमात्रकम् नो ल्लङ्घयेत् (D) पथ्यं याममात्रकम् नो ल्लङ्घयेत् द्वियामम् ।
याममात्रं तु ।
13. Choose decreasing order of solvents for chromatography on the basis of their elutropic value.
- (A) Hexane > Ethanol > Acetic acid > Chloroform > CCl₄ > Water (B) Hexane > CCl₄ > Chloroform > Acetic acid > Ethanol > Water
(C) Water > Acetic acid > Ethanol > Chloroform > CCl₄ > Hexane (D) Water > Ethanol > CCl₄ > Acetic acid > Chloroform > Hexane

14. Match the following analytical methods on the basis of change observed in thermal experiments.

i. Thermogravimetry	a. Temperature of transition ΔT
ii. Differential thermal analysis	b. Power difference ΔP
iii. Differential scanning calorimetry	c. Changes in weight of sample
(A) i-a, ii-b, iii-c	(B) i-b, ii-c, iii-a
(C) i-c, ii-a, iii-b	(D) i-b, ii-a, iii-c
15. Contemporary nasal solutions should have which type of osmolality and pH range?

(A) Hypotonic and pH range 5-7	(B) Hypertonic and pH range 5.5-6
(C) Isotonic and pH range 7-7.5	(D) Isotonic and pH range 5.5-6.5
16. Which among below is "Pharmaceutical formulation of *Rajata* and *Swarna*" derived by "*Marana* (मारण)" followed by "*Utthapana* (उत्थापन)" as per Rasendra Chudamani?

(A) दल	(B) रक्ति
(C) कृष्टि	(D) राग
17. What is recommended dose of *Yogaraja Guggulu*, *Kaishore Guggulu* and *Kanchanara Guggulu* as per Sharangdhara Samhita?

(A) All 3 Valla	(B) All 1 Shana
(C) <i>Yogaraja Guggulu</i> -3 Shana, <i>Kaishore Guggulu</i> and <i>Kanchanara Guggulu</i> -1 Shana each	(D) <i>Yogaraja Guggulu</i> - 1 Masha, <i>Kaishore Guggulu</i> and <i>Kanchanara Guggulu</i> -2 Masha each
18. Identify correct description of mineral *Akika* (अकीक) as per Ayurvedic Pharmacopeia of India?

(A) It is Quartz, white in colour, has conchoidal fracture and hardness 6-7	(B) It is Garnet, white in colour, has uneven fracture and hardness 7-8
(C) It is calcite, grayish in colour, has perfect cleavage and hardness 7.5-8	(D) It is Serpentine, greenish in color, without cleavage and hardness 8-9
19. What is true regarding strychnine and brucine from *Strychnos nux- vomica* L.?

(A) Brucine is less toxic than strychnine	(B) Strychnine and Brucine are antagonists of each other
(C) Brucine has highest content in fruit pulp	(D) Strychnine is less toxic than Brucine
20. For industrial drying of *Ksheerapaka* in to fine granules or powder which of the following instrument should be preferred?

(A) Fluidized bed drier	(B) Tray drier
(C) Spray drier	(D) Rotary drier
21. Find out correct combination of excipients in tablet manufacture?

(A) Binding agents-Methyl cellulose, Gelatine	(B) Gliding agents-Paraffin, Carboxymethyl cellulose
(C) Antiadhesives-Bentonite, Kaoline	(D) Adsorbing agents-Gum Tragacanth, Sucrose
22. With which among below routes of drug administration, drug enters systemic circulation with and without undergoing 1st pass metabolism through Liver?

(A) Sublingual and buccal	(B) Vaginal and Topical
(C) Oral	(D) Rectal

23. Which among below drug factors leads to high volume of distribution ?
(A) More water solubility and high molecular weight (B) More plasma protein binding and acidic nature
(C) Low molecular weight and More lipid solubility (D) More plasma protein binding and less lipid solubility
24. Statement "व्यवायि भेषजोपेतो द्रव्ये क्षिप्तो रसः खलु" is in context to which of the pharmaceutical processing of *Parada*?
(A) *Sarana* (सारणा) (B) *Jarana* (जारणा)
(C) *Vedhana* (वेधन) (D) *Bodhana* (बोधन)
25. Which is correct statement for *Arka Lavana* (अर्क लवण)?
(A) Recommended to prepare with अन्तर्धूम विपाचन method and should have कज्जलप्रभ वर्ण (B) Recommended to prepare with बहिर्धूम विपाचन method and should have कपोत वर्ण
(C) Recommended to prepare with बहिर्धूम विपाचन method and should have श्वेत वर्ण (D) Recommended to prepare with अन्तर्धूम विपाचन method and should have श्वेत वर्ण
26. What is duration of validity of licence for manufacture and sale of Ayurved, Siddha & Unani Medicines by default (if not suspended or cancelled)?
(A) 10 years (B) 5 years
(C) 1 year (D) 3 years
27. Which among below are permissible and natural colors to be used in drugs as per D & C act 1940 and Rules 1945?
(A) Carmine Red, Caramel, Methylene blue (B) Realgar Red, Caramel, Methylene blue
(C) Orpiment yellow, Annato, Sudamine Red (D) Yellow oxide of Iron, Titanium oxide, Carotene
28. Find recommended indications of *Taila Kalpa* (तैल कल्प) as per Sharangdhara samhita?.
(A) कासीसाद्य तैल - पामा , कच्छु , विचर्चिका , पिण्ड तैल - अर्श , अर्क तैल - व्यङ्ग (B) कासीसाद्य तैल - पालित्य , पिण्ड तैल - विचर्चिका, अर्क तैल - युवान पिडिका
(C) कासीसाद्य तैल - पामा , कच्छु , , पिण्ड तैल - विचर्चिका , अर्क तैल - व्यङ्ग (D) कासीसाद्य तैल - अर्श , पिण्ड तैल - वातरक्त, अर्क तैल - पामा , कच्छु , विचर्चिका
29. Which among below are formulations of "*Naga* (नाग) " as per Ayurvedic formulary of India?
(A) एकानावीर रस (रसराजसुन्दर), वातविध्वंसन रस (योगरत्नाकर) (B) श्वासकुठार रस (योगरत्नाकर), कृमिमुद्गर रस (रसेन्द्र सार संग्रह)
(C) सुतशेखर रस (योगरत्नाकर), चतुर्भुज रस (रसेन्द्रसार संग्रह, उन्माद चिकित्सा) (D) चन्द्रामृत रस (रसामृत), कस्तुरिभैरव रस (रसेन्द्र सार संग्रह)


30. Which among below are posological recommendations of *Rasaparpati* (रसपर्पटी) as per Bhaishajya Ratnavali?
- (A) Start with 2 गुञ्जा, increased by 1 गुञ्जा/day till maximum 10 गुञ्जा/day and administered over 21 days
- (B) Start with 1 गुञ्जा, increased by 1 गुञ्जा /day , till maximum 7 गुञ्जा/day and administered over 14 days
- (C) Start with 2 गुञ्जा, increased by 2 गुञ्जा/day till maximum 48 गुञ्जा/day and administered over 48 days
- (D) Start with अर्ध गुञ्जा, increased by अर्ध गुञ्जा /day till maximum 3.5 गुञ्जा/day and administered over 14 days
31. As per consumer protection act 1986, which medical service is **outside the perview of** the expression "service"?
- (A) Services rendered at Government Hospital
- (B) Services at hospitals accepting payment through insurance companies
- (C) Services provided by hospital free to unaffordable patients but not for affordable.
- (D) A and B
32. As per Ayurvedic formulary of india, what is equivalent weight of "fruit pulp of 100 हरीतकी "in "व्याघ्री हरीतकी "?
- (A) 1.2 kg
- (B) 1.5 kg
- (C) 600g
- (D) 333g
33. Which among below possess property of *Dhatumelakatva* (धातु मेलकत्व; alloying of धातु or धातु सत्व) or द्वन्द्वन् as per Rasendra Chudamani?
- (A) स्वर्णमाक्षिक
- (B) शोधनीय गण
- (C) स्वर्णमाक्षिक and विमल
- (D) स्वर्णमाक्षिक and शोधनीय गण
34. Which among below are *Lakshana* (लक्षण) or properties of "Bija; बीज" or "Utarana; उतरण" as per Rasendra Chudamani ?
- (A) "निर्वाहेण विशेषेण तद् वर्ण", "मृदुलं", "चित्रसंस्कारं"
- (B) "उज्ज्वल वर्ण", "उत्थापनक्षम", "लोहे तारत्व हेमता", "नावर्तते वह्नौ"
- (C) "विद्ध द्रव्यस्य वर्ण प्रकशनक्षमम्", "तेजस्वितम्" "कालुष्यादि निवारणक्षमं"
- (D) "उत्थापनक्षम", "वह्ने स्थिरत्वं", वर्णोज्ज्वलकरं"
35. Complete the verse with appropriate phrase or word below.
रञ्जितञ्च रसाल्लोहाद् ध्मानाद्वा चिरकालतः I विनिर्याति स निर्दिष्टःII
- (A) पतङ्गी राग संज्ञिकः
- (B) आकृष्टः बुधैः मतः
- (C) बिजावर्तः स उच्यते
- (D) शुद्ध सत्वः सुविमलः
36. As per Rasaratna Samucchaya, what should be the color of "Swarna Gairika (स्वर्ण गैरिक)"?
- (A) अत्यन्त शोणित वर्ण
- (B) पीताभ रक्त वर्ण
- (C) अरुण वर्ण
- (D) इष्टिकाभ वर्ण

37. What is color of fractured side and color of streak of *Strotonjana* (स्त्रोतोञ्जन) respectively as per Rasaratna Samucchaya?
(A) नीलोत्पलच्छायं and गैरिकच्छायं (B) गैरिकच्छायं and नीलोत्पलच्छायं
(C) कज्जलाभ and हरिताभ (D) व्योमवत् and षोडशवर्ण सुवर्णवत्
38. Which among below pharmaceutical operations are recommended for "*Dhatu satva Mridukarana*; धातुसत्व मृदुकरण"?
i. स्वेदन in अम्लवर्ग द्रव्य रस & क्षार जल
ii. परिवापन after द्रावण or ढालन in मधु, स्नेह वर्ग द्रव्य
iii. अभिषेक with अम्लवर्ग द्रव्य रस, गोमुत्र, काज्जी, कुलत्थ क्वाथ
iv. ताडन with another रसवर्ग द्रव्य or its *Satva* (सत्व)
(A) Only ii (B) i, iii and iv
(C) ii and iv (D) Only iii
39. On the basis of color which among below is **NOT** a variety of *Vaikranta*?
(A) श्वेत (B) हरित
(C) श्यामल (D) पारावत वर्ण
40. Monographs of which of the following *Rasavarga dravya* (रसवर्ग द्रव्य) are **NOT** mentioned in Pharmacopeia of India Part I, Volume VII (Minerals and metals)?
(A) *Sauviranjana* (सौविराञ्जन), (B) *Manahshila* (मनःशिला), *Hingula* (हिङ्गुल)
Gomeda (गोमेद)
(C) *Mandura* (मण्डुर), *Akika* (अकीक) (D) *Jaharamohara* (जहरमोहरा), *Kanta Lauha* (कान्त लोह)
41. What is color of *Shilajatu* (शिलाजतु) found in region of occurrence of plenty of Gold deposits as per Rasaratna Samucchaya?
(A) मयूर कण्ठ नील वर्ण (B) जपापुष्पनिभ वर्ण
(C) पाण्डुर वर्ण (D) पञ्च वर्ण सुवर्णवत् वर्ण
42. What are स्नेह द्रव्य and द्रव द्रव्य for स्नेह पाक of *Arka taila* (अर्क तैल) as per Sharangdhara samhita and Adhamalla commentary?
(A) स्नेह - तिल तैल, द्रव द्रव्य - अर्क क्षीर (B) स्नेह - सर्षप तैल, द्रव द्रव्य - अर्क पत्र रस
(C) स्नेह - तिल तैल, द्रव द्रव्य - अर्क क्षार (D) स्नेह - सर्षप तैल, द्रव द्रव्य - अर्क क्षार जल जल
43. Find correct statement for *Vruddha Bandha*; वृद्ध बन्ध of *Parada* (पारद) as per Rasaratna Samucchaya?
(A) भस्मिकृतो नश्यति वह्नियोगाद्रसः I (B) यो दिव्य मुलिकाभिश्चकृतोऽत्यग्निसहो रसः I विना अभ्रक जारणात् ...I
(C) चतुर्गुणो व्योमकृताशणोऽसौ रसायनाग्र्यःI (D) यश्चाभ्रकं षड्गुणितं हि जीर्णः प्राप्ताग्निसख्यःI

44. "Panchalavana (पञ्चलवण)" are ingredients of which of the following *Sandhana Kalpa* (संधान कल्प)?
- (A) तक्रारिष्ट अर्श चिकित्सा (चरक संहिता) (B) तक्रारिष्ट ग्रहणी चिकित्सा (चरक संहिता)
- (C) तक्रारिष्ट अर्श चिकित्सा & ग्रहणी चिकित्सा (चरक संहिता) (D) None among A, B and C
45. Ingredients of "Trimada (त्रिमद)" are contents of which of the following *Churna Kalpa* (चूर्ण कल्प) mentioned in Sharangdhara Samhita?
- (A) Dadimashtakam Churnam (दाडीमाष्टक चूर्ण) (B) Kapitthashtaka Churna (कपित्थाष्टक चूर्ण)
- (C) Navayasa Lauha (नवायसलौह) (D) Laghu Gangadhara Churnam (लघु गङ्गाधर चूर्ण)
46. As per Ayurved Prakasha, which among below mentioned "Anjana (अञ्जन)" is also termed as "Ritikitta (रितिकिट्ट)"?
- (A) Neelanjana (नीलाञ्जन) (B) Rasanjana (रसाञ्जन)
- (C) Pushpanjana (पुष्पाञ्जन) (D) Strotanjanana (स्रोतोञ्जन)
47. In "Putapakwa Vishama Jvarantaka Lauha (पुटपक्व विषं ज्वरान्तक लौह)", which type of "Samputa" is used for Putana/ Putapaaka as per Ayurvedic formulary of India?
- (A) Mukta Shukti (मुक्ता शुक्ति) (B) Shankha (शङ्ख)
- (C) Kukkutanda (कुक्कुटाण्ड) (D) Mukta (मुक्ता)
48. For preparation of "Swarnavanga (स्वर्ण वङ्ग)", as that of "Vanga (वङ्ग)", what is recommended quantity of "Parada and Gandhaka" as per Ayurvedic Formulary of India?
- (A) पारद समगुण and गन्धक अर्धगुण (B) पारद अर्धगुण and गन्धक चतुर्गुण
- (C) पारद and गन्धक both अर्धगुण (D) पारद अर्धगुण and गन्धक द्विगुण
49. In chronic mercury poisoning, what is true regarding concentration of Mercury in blood and hair?
- (A) Concentration of Mercury in hair is far higher than in blood (B) Concentration of Mercury in hair is far less than in blood
- (C) Concentration of Mercury in hair is almost equal to that of in blood (D) Relation between concentration of Mercury in hair and blood can not be predicted
50. For the management of which disease (रोगाधिकार), description of *Pindasava* (पिण्डासव) has been mentioned in Charaka Samhita?
- (A) ग्रहणी दोष चिकित्सा (B) पाण्डु रोग चिकित्सा
- (C) अर्श रोग चिकित्सा (D) गुल्म रोग चिकित्सा

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 1/4th 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 
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, Pagers 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.