

Rasasastra & Bhaishajya Kalpana

I. Terms and periodical examinations

It is proposed to divide the 18 months of second Professional B.A.M.S. course into 3 terms as directed by D.A.M.E. The three terms with study leave and terminal examinations can be as follows,

Term 1 : Classes for 6 months, including examination & result

Term 2 : Classes for 6 months, including examination & result

Term 3 : Classes for 4 months including model examination & result.

Study leave + University Exam for 2 months

University Examination process 2 months

Total : 18 months

Scheme of Examination

Term I : Theory

Paper 1 : Rasa Sasthra - 50 marks. Duration - 2 hours.

Paper 2 : Bhaishajya Kalpana - 50 marks. Duration - 2 hours.

No viva and Practical Examinations.

Term II : Theory

Paper 1 : Rasa Sasthra - 50 marks. Duration - 2 hours.

Paper 2 : Bhaishajya Kalpana 50 marks. - Duration - 2 hours

Viva and Practicals : 50 marks.

Term III : Theory

Paper 1 : Rasa Sasthra 100 marks.

Duration - 3 hours.

Paper 2 : Bhaishajya Kalpana 100 marks. Duration - 3 hours.

Viva and Practicals : 200 marks.

Re-structure of Question paper.

The present system should be changed since it is not sufficient for assessing a student. So a blue print of Question paper is recommended here with.

1. Short answer questions (2 marks each) – 10 = 20 marks.
 2. Short answer questions (3 marks each) – 5 = 15 marks.
 3. Illustrative questions (5 marks each) – 3 = 15 marks.
- Total 50 marks.

Same pattern for both Part A and Part B.

Term – 1

Paper – I.

Rasa Sastram

1. Rasa sabda nirukthi – Rasa darsanam – Rasa-Rasayana bhedenam
Rasa Sastra Ithihasam.
2. Paribhasha prakaranam – Lavana panchakam, Madhurathrayam,
Amla vargam, Panchamritham, Pancghagavyam, Ksheera thrayam,
Rasa pankam, Rasa pishty, Bhavana, Dalanam, Aavaapam,
Nirvaapam, Sodhana, Maranam, Mritha loham, Apunarbhavam,
Nirutham, Varitharam, Pancha mrithika, Rasa dravya
vargeekaranam, Dravaka ganam etc.
3. Yantra – Dola, Damaru, Sthalee, Palika, Swedani, Puta, Vidyadhara,

- Ghada, Pathana, Bhoodhara, Pathala, Khalwa, Thula, Ulookhala, Kachapa Yantharanam parichayam.
4. Moosha – Samanya, Vajra, Pakwa, Gosthane moosha swaroopam, Upayogam – Aadhunika Swaroopam.
 5. Koshti, Chullika, Angara, Paathala, Gaara, Satwapathana Koshti – Jnanam – Aadhunika swaroopam.
 6. Putam – Maha – Gaja – Varaaha – Kukkuda – Kapotha – Gomaya – Kumbha – Valuka – Bhoodhara – Lavaka puta – Parichaya, Swaroopam, modern electric furnace – detailed knowledge.

Paper II

Bhaishajya Kalpana.

1. Bhaishajya Kalpana – Vyulpathi, Ithihasam, - Kramika vikaasam, Oushadhi – Bhaishajyaanaam antharam.
2. Aadharabhootha sidhantham of Bhaishajya Kalpana – Saveeryathavadhi of different Kalpanas, Oushadha kalpana samrakshana vidhi, Aadhunika mathanusarena jnanam, upayogam –
3. Pouthava – Druvaya – Payya mana tharathamya padanam with Pashchathya – Pracheena Sasthras, (Modern equivalent measures) Sushka – Aardra dravya Grahana jnanam, Oushadha dravya grahathya- agraahatya – samgraham, sanchayam, samrakshanam, - visthritha jnanam. Oushadhee kalpana pareekshana vidhi – modern equivalent measures.
4. Pathya kalpana – Mandam, Peya, Yavagoo, Vilepi, Krisara, Annam, Bhaktham, - Yoosham – Rasam – Ghandam – Kambalika – Raagam

- Shaandavam – Siktham – Vesavaaram – Thakram – Udaschit – Madhitham – Katwaram – Dadhi nirmanam, Vidhi, prayoga vidhi – Mathra – prayoga kalam – Aamayika prayogam.
5. Detailed study of Oushadha kalpa parichayam – nirmana vidhi – mathra – Aamayika prayogam – Anupanam. Swarasam – Kalkam – Sritham – Seetham – Phandam – Shadanga paaneeyam – Ushnodakam – Thandulodakam – Laksharasam – Mamsa rasam – Mandham – Oushadha sidha paneeyam – Oushadha yoosham – Arkam – Paanakam – Saarkaram – Pramathya

Term 2.

Paper I.

Rasa Sasthram

1. Rasam – nirukthi, paryayam, prapthi sthanam, yougika swaroopam – Naisargika – Kanchuka doshas – Grahya – agrahya swaroopam – Sodhanam – Ashta samskaras – Gathis – Bandha – Hingulotha paradam. Parada samanya sodhanam – Kajjali – Parpadi (Rasa – Thamra – Vyoma – Swarna – Vijaya – Panchamritha parpadi.) Rasa pushpam, Rasa karpooram, Mugdha rasam, Rasa sindooram, Makaradwajam, Sidha makaradhwajam – Kalpananirmanam reethi – mathra – guna – Aamayika prayoga
2. Maha rasadi – Maharasam, Uparasam, Sadharana rasam – Sankhya, swaroopam, prapthi sthanam, Sodhana, maranam mathra, gunam, aamayika prayogam. Swarna vangam, Rasa manikyam, Swetha parpadi – Nirmanam, mathra, gunam, aamayika prayogam.

Paper II

Bhaishajya kalpana

1. Sidha sneha paka vidhi, sneha bheda, Sneha kalpanas, Moorchana

- vidhi, Ghritha – thaila paka bheda, Sneha paka lakshana, Sneha paka niyama, Prayoga vidhi, Upayoga Mathra Upayoga kalam. Nirmana kramam and Upayoga of Brahmee Ghritham, Jathyadi Ghritham, Narayana thailam, Panchaguna thailam
2. Sandhana kalpana – Swaroopam, bheda, Nirmana, guna, mathra, upayoga and sevana vidhi of Aasava – Arishta – Seedhu – Vaaruni – Surasavam – Prasanna – Suktham – Kadambari – Medaka – Jagalam – Maireyam – Thushodakam – Souveerakam – Kanchikam; Sidha sandhana lakshana, Draksharishtam, Dasamoolarishtam, Asokarishtam, Arjunarishtam, Kumaryasavam, Chandanasavam – Nirmana upayoga vidhi and mathra.
 3. Rasa kriya – Phaaniyam – Avaleham – Praasam – Ghana sathwam – Guda paakam – Guggulu paakam – Chooram – Vatika – Gudika – Chakrika, vatakam – Pindam – Modakam – Varthi – Gudavarthi – Lavana kalpam – Mashee kalpam – Ayaskrithi – Puta pakam – Ksheera pakam – Ksharam – Kshara soothram.
 4. Oushadha yoga nirmana vidhi – Upayoga jnanam, Chyavanaprasa lehyam, Vyaaghree hareethaki, Vasavaleham, Sithopaladi chooram, Thaleesadi chooram, Hingwashtaka chooram, Lavana bhaskara chooram, Sanjeevani vati, Eladi vati, Lavangadi vati, Sangha vati, Rasonadi vati, Chithrakadi vati, Chandraprabha vati, Aarogya vardhinee vati, Kaisora – Simhanada – Yogaraja guggulu.

Term 3.

Paper I

Rasa Sastham

1. Dhathu – upadhathu: Swarna, Rajatha, Thamra – Loha, Vanga – Naga – Yasada – Poothi lohas, Kamsya pithaladi misra lohas and their swaropa, prapthi sthanam, bheda sodhana, maranam, lohithheekaranam, amritheekaranam, Mathra, Gunam, Aamayika

- prayogam, Bhoonaga – Mayooraapicha satwapathanam.
2. Rathna – uparathnas –: Manikyam, Muktha, Pravalam, Tharkshyam, Pushyaragam, Vajra, Neela, Gomedaka, Vaidoorya Rathnas; Vaikrantha, Sooryakantha, Chandrakantha, Rajavartha, Perojaka, Spadika, Vyomamsam, Pathangam, Rudhira puthikam, Sugandhikam, Thrina kantham – Uparathnas, Sukthi, Sankha, Varadika, Dugdhapashanam, Godanthi, Mriga sringam, Kaiseyasmam, Badarasmam – Sudavarga dravyas — Parichaya, Swaroopa, Prapthisthanam, Sodhanam, Maranam, Pishteekaranam, Mathra, Gunam, Aamayika prayogam.
 3. Vishopavisha swaroopam, Gunam Samanya sodhanam, Aamayika prayoga jnanam, upayogajnanam
 4. Rasa saala nirmanam according to the Oushadhee prasadhana niyamam, thasyanthargatha oushadhee nirmana sambandha niyamopa Niyama jnanam. (Drugs and cosmetic act. Including GMP).

Paper II

Bhaishajya kalpana.

1. Lepam – Bhedam, nirmanam, prayoga vidhi – Satha dhoutha – Sahasra dhoutha nirmana prayoga vidhi – Malahara – Upanaha – siktha thaila nirmana vidhi.
2. Seka – Anjana – Aaschothana – Vidalaka – Tharpana – Putapakadi Nethra kalpana – Gandoosha kabaladi mukha kalpanas – Nasya, Pradhamana, Dhoomapanadi nasa kalpanas – Nirmanam, Gunam, Prayoga jnanam.
3. Vasthi kalpanas – Vividha vasthi bhedam, Gunam, Nirmanam, Upayoga vidhi – Jnanam.
4. Mrithyunjaya rasam, Aananda bhairava rasam, Thribhuvana keerthi

rasam, Hinguleswara rasam, Vasanthamalathee rasam, Vasantha kusumakara rasam, Hridayarnava rasam, Swasakudara rasam, Raja mriganga rasam – Hemagarbha pottalee rasam, Putapakwa vishamajwarantha louham, Sarva brahat vatha chinthamaneer rasam, Jalodaradi rasam, Ichabhedee rasam, Rama bana rasam, Punarnava mandooram, Saphamritha louham, Navayasa louham, Kumara kalyana rasam, Garbhapala rasam, Prathapalenkeswara rasam, Kasthoori bhairava rasam, Lakshmee vilasa rasam.

Practicals – Term I - Bhaishajyakalpana

Swarasam	-	Ardraka, Thulasipatra
Kalkam	-	Nimba, Lausna
Srutham	-	Rasnapanchakam, Punarnavashtakam
Hima	-	Dhanyakahima
Phanta	-	Panchakolaphantam
Choorna	-	Hingushtakachoorna, Sithopaladi choorna
Thoyam	-	Shadangathoyam
Panakam	-	Chincha Panakam
Mantham	-	Kharjuradi Mantham
Ksheeram	-	Arjuna Ksheeram Lasuna Ksheeram
Yoosham	-	Mudga yoosham
Rasasastram		
Maharasa	-	Abhraka Sodhanam Dhanyabhrakam Makshika Sodhanam Sasyaka Sodhanam

Uparasa	-	Gandhaka Sodhanam	
		Gairaka Sodhanam	
		Kaseesa Sodhanam	
		Harithala Sodhanam	
		Anjana Sodhanam	
		Kaseesa Maranam	
		Kamshi Sodhanam	
		Rasamanikyanirmanam	12

II Term

Bhaishajyakalpana

Thailam	-	Bala Thailam	
		Pinda Thailam	
Ghritam	-	Ksheerashadpala gritham	
Sathvam	-	Guloochi Sathvam	
Ksharam	-	Apamarga Ksharam	
Avaleham	-	Kooshmanda Avaleham	
Vadakam	-	Vyoshadi Vadakam	
Khandam	-	Haridra Khandam	
		Naleekera Khandam	9

Rasasasthram

Sadharanarasa	-	Hingula Sodhanam	
		Hingulothaparadam	
Sudhavargam	-	Sankha sodhanam	
		Varatika sodhanam	

		Godanthi sodhanam	
		Pravala sodhanam	
		Sankhamaranam	
		Varatikamaranam	
		Godanthimaranam	
		Pravalapishti	
Dhathu	-	Loha samanya Sodhanam	
Loha Visesha	-	Bhanupakam – Sthalipakam	
Sodhanam		Vanga Visesha Sodhanam	
Rasa	-	Rasa samanya Sodhanam	
		Rasakajjali	
		Mugdharasa	
Parpati	-	Rasa Parpati	
		Swetha Parpati	19

III Term

Bhaishajyakalpana

Sandhana Kalpana	-	Draksharishta	
Sudhi	-	Gugulu, Hingu, Dhathura, Vatsanabhi	
Vasthi Yojanakrama	-	Prayogam – Madhu thailika vasthi	
Guggulu Kalpam	-	Triphala guggul	
Lavana Kalpam	-	Naleekera Lavana	
		Arkalavana	
Mashi Kalpam	-	Triphaladi Mashi	

Malahara Kalpana	-	Sarjarasa Malahara	
Lepam	-	Doshaghna Lepam	
Varthi	-	Phala varthi	
Dhoopam	-	Dasanga Dhoopam	14

Rasasasthram

Khalvayarasanam	-	Hinguleswara rasam Ananda Bhairavarasam	
Lauhakalpam	-	Navayasa Lauham	
Druthi	-	Gandhaka Druthi	4
Rasayanika			
Pareeksha	-	Rasam – Gandhakam – Loham – Thamram – Namgam – Vangam – Sudhavargam	

* Clinical evaluation of Prepared rasadrugs in Hospital Patients

*Knowledge of encapsulating the mixtures, rasoushadas and churnas in capsules

Model Question Paper

Rasathanthra Paper I

Part A

1. Define Rasa
2. What you mean by Rasapanaka?
3. Name Panchamrithika
4. What is Amrutheekaranam
5. Define puta, with modern equivalent
6. Give an account of the necessity of Sodhana procedure in

Rasasastra

7. Write the importance of Rasachikitsa?
8. Write paribhasha of madhura thraya
9. Differentiate 'Avapa and Narvapa'
10. Write the upadhana of Moosha
11. Write short notes on 10x 2=20
 1. Bhavana
 2. Marana
 3. Vidhyadharyantram
 4. Angarakoshti
 5. Kapothaputam 5x3=15
12. Write briefly on Bhasma pareeksha
13. With the help of diagram, describe gosthaneemoosha
14. Discuss the evolution of Rasasastra 3x5=15

Part B

15. Write the individual drugs of Maharasa with modern names
16. Write the Synonyms of parada
17. Name Ashta samskara of parada
18. Name poothilohas, why they are called so?
19. Write the Samanya sodhana of lohas (metals)
20. Write copper containing minerals used in Rasasastra?
21. Write 5 sudha varga dravya
22. Write samanya sodhana of sadharna rasa
23. Name the varieties of Harithala

24. What you mean by Sooryathapi silajathu? 10x2=20
25. Write Dhanyaabhrakanirmanana and its importance in abhrakamarana
26. Differentiate between makshika and vimala
27. Write sodhana procedure of a. Kupilu b. Vatsanabhi
28. Write lakshanas of Pinaka abhraka and vajraabhraka
29. Write the names of navaratnas with their samanya sodhana
3 x 5 = 15
30. Write the varieties garika and its properties
31. Describe the method of preparation of siddha makaradhwaja and makaradhwaja
32. Name Rasabandhas and describe potabandha. 5x3=15

Paper II

Part A

1. Define Bhaishajya?
2. What is Mana? What is the purpose of Manaparibhasha?
3. Name the group of drugs which are to be used fresh in all preparations?
4. Write the difference between choorna and kalka
5. Name 2 Bhashajya kalpanas which are having indefinite shelf life?
6. What is the importance of ksheerapaka vidhi?
7. Define phanitha?
8. Describe 2 machineries used in the preparation of powder?
9. What is the role of vasana samskara? Give an example?

10. Write panaka with one example 10x2=20
11. Write the methods of preparations of laksha rasa
12. Differentiate between kwatha and pramathya
13. Write a brief account on Arka kalpana
14. Give an account of Siddha Avaleha lakshana
15. Write the mode of preparation of guloochi satwa with dose and uses? 3x5=15
16. Write detailed description of
 1. Kashaya yoni
 2. Guggulu kalpam
 3. Kwatha vidhi 5x3=15

Part B

17. What is logic behind thaila moorchana?
18. Write the ingredients used for sneha kalpana according to Acharya sounaka?
19. What are the advantages and the disadvantages of gutika kalpana
20. What is posology?
21. Write the uses of Vilepi?
22. Malahara kalpana is first introduced by which Acharya and write its role in modern pharmaceuticals?
23. Write the types of Nasya kalpana?
24. Differentiate between Gandoosha and kabala
25. Write the Varieties of Thakra?
26. What is Varuni 10x2=20
27. Write short notes on

- a. Snehakalpana
 - b. Sura
 - c. Mamsarasa
 - d. Vasthi
 - e. Netrakalpa 5x3=15
28. Discuss in detail Siddha sandhana lakshanas?
29. Write the mode of preparation of Draksharishta with uses and dosage
30. Give an account of Varthi kalpana and co-relate it with that in modern pharmaceuticals? 3 x 5 = 15

Text Books of Rasasastra

1. Rasamrtam Dr. Damodar Joshi (K)
 2. Rasa Jala nidhi (1-5 Parts) English (cod)
 3. Ayurvediya Rasa Sastra - Dr Siddhinandan Misra (JA)
 4. Rasendra sara samgraha - Indra deva Tripathi (JA)
 5. Rasamanjari (siddhiprada) Hindi vyakhya -Siddhinandan Misra (JA)
 6. Rasa Prakasa Sudhakara (Hindi vyakhya) - Siddninandan Misra (JA)
 7. Rasendra cudamani - Siddhinandan Mistra (JA)
 8. Rasa paddhati - Siddhinandan Misra (JA)
 9. Rasa kamadhenu prathamopakarana pada tika caturtga Cikkitsa pada (1-3 Parts)
- Hindi – Gulraj Sharma (JA)
10. Rasendra cintamani - Siddhinandan Misra (JA)
 11. Prarambhika rasa sastra - Siddhinandan Misra (JA)
 12. Ayurvediya Rasyana Sara (IIIustrated)-Dr.(Smt.) Shailaja Srivastava (JA)

13. Rasa Cintamani - Siddhinandan Misra (JA)
14. Rasendramangalam of Nagarjuna - H.S.Sharma (JA)
15. Brhad Rasaraja sundara - Datta Ram Chooubey (JA)
16. Abhinava Navjeevanam - Siddhi Nandan Mishra (JA)
17. Kasturi - Dr. chandrashekhar Yadav & Dr. Chhotelal Yadav (JA)
18. Abhidhanaratnamala - Priyavrat Sharma (JA)
19. Rasahrdaya tantra - Daulat Rama Sharma. (cod)
20. Ayurveda prakasa - Gularaja Sharma Misra (v)
21. Rasa ratnakara rddhi khanda vadi khanda - Swaminath (c0d)
22. Rasa darpana - Pro. Bhajandas Swami (1-2 parts) (N)
23. Rasa bindu - Sanjay Sharma (N)
24. Rasayana tantra - Pakshadhar Jha (V)
25. Rasa cikitsa - Prabhakar Chatopadhyay (v)
26. Rasaratnasmucchya - Dr. Indradev Tripathi (K)
27. Bharatiya rasa sastra - Vishvanath Diwivedi (B)
28. Ayurveda Darsana OR the reference of Caraka, Susruta and Vagabhata S.V.Shukla (JA)
29. Short Notes of Charka Samhita - Dr. S.V.Shukla (JA)
30. Short Notes of Susruta Samhita - Dr. S.V.Shukla (JA)
31. Short Notes of Astanga Samgraha - (Vol. 1-2)-Dr. S.V.Shukla (JA)

Text Books of Bhaisajya Kalpana

1. Sarangadhara Samhita - Text with English Translation - Dr. K.R. Srikanth Murthy (JA)
2. Sarangadhara Samhita - (Hindi 'Jivan' vyakhya) Shailaja Shrivastava (JA)

3. Sarangadhara Samhita - Adhamalla (JA)
4. Sarangadhara Samhita - by Acharya-Sarngadhara-(Original Text) edited and introduction Dr. Siddhinandan Mishra (JA)
5. Sarngadhara Samhita - Damodra Sunu Sarngadhar Revised by Acharya Narayanaram (Pocket size) (JA)
6. Salya tantra samucchya Collected – Vamdeva Mishra. Introduction Dr. Damodra Sharma Gaud (JA)
7. Bhaisajya Kalpana vijnana - Avadh Bihari Agnihotri (V)
8. Bhaisajya ratnavali - Ambikadatta Shastra (K)
9. Vaidyaka Paribhasa pradipa (Vidyotini Hindi) – Indradeva Tripathi (JA)
10. Asavaristha vijnana - Paksadhar Jha (v)
11. Paka darpana - Indradev Tripathi (K)
12. Ayurveda Darsana OR The reference of Caraka, Susruta and Vagabhata-S.V. Shukla (JA)
13. Short Notes of Charaka Samhita - Dr.S.V. Shukla (JA)
14. Short Notes of Susrutha Samhita - Dr. S.V. Shukla (JA)
15. Short Notes of Ashtanga Samgraha (Vol – 1-2) - Dr. S.V. Shukla (JA)

Distribution of Practical marks Total – 200

1. Sodhama, Maraina, and Preparation of Medicines	40
2. identification of drugs	20
3. Viva – Voce	50
4. Practical work record	10
5. Preparation if medicines	30
6. (Togamanakeekaranams)	20

7.	Identification of Instruments and machines	20
8.	Daily work	10
	Total	200

Main Text Books

Rasasastram

1. Rasaretnasamuchayam
2. Rasatharangini

Bhaishajya kalapana

3. Sarangadhara samhita
4. Relevant chapters from
5. Ashtanga hrudayam, charaka samhita