

Preliminary M.D./M.S. Ayurveda (2012)/(2017)

Examination, (Phase - II) Summer - 2022

RESEARCH METHODOLOGY AND MEDICAL STATISTICS - I

(Ayurved Samhita & Siddhanta)/(Rachana Sharir)/(Kriya Sharir)/

(Dravyaguna Vigyana)/(Kaumarbhritya - Bala Roga)/(Swastha

Vritta & Yoga)/(Kayachikitsa)/(Roga Nidana Avum Vikriti

Vigyana)/(Panchkarma)/(Agad Tantra Avum Vidhi Vaidyaka)/

(Rasa Shastra & Bhaishajya Kalpana)/(Rasayan & Vajikaran)/

(Prasuti Avum Stri Roga)/(Shalya Tantra - Samanya)/(Shalya -

Kshara Karma Avum Anushastra Karma)/(Shalakyata Tantra -

Netra Roga)/(Swasthavritta)/(Kayachikitsa)/(Rasayan Evam

Vajikaran)/(Mano Vigyana Evum Manas Roga)/(Shalya)/

(Shalakyata)/(Agad Tantra)

(Preliminary M.D. Ayurveda (2012) Syllabus is applicable to

Preliminary M.D. Ayurveda (2017) Students w.e.f. Winter - 2018

Examination)

Total Duration : 3 Hours

Total Marks : 100

- Instructions :**
- 1) Use **blue/black** ball point pen only.
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 - 3) **All questions are compulsory.**
 - 4) The number to the **right** indicates **full** marks.
 - 5) Draw diagrams **wherever** necessary.
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 - 7) Use a common answerbook for **all** sections.

SECTION-"A" (60 Marks)

1. दीर्घोत्तरी प्रश्न (तीनपैकी कोणतेही दोन): [2×15=30]

Long answer question (any two out of three):

a) वैज्ञानिक लेखनाचे महत्त्व स्पष्ट करा व CONSORT मार्गदर्शक तत्वाचे वर्णन करा.

Explain importance of Scientific writing & describe CONSORT guidelines.

- b) आरोग्य विज्ञानाच्या संदर्भात पारंपारीक आणि समकालिन संशोधन पद्धतीमधील फरक स्पष्ट करा.
Explain & State difference between Classical & contemporary methods of research with reference to health sciences.

- c) गुणात्मक संशोधन पद्धती चे प्रकार, उपयुक्तता व विश्लेषण स्पष्ट करा.
Explain methodology, types, utility & analysis of Qualitative research methods.

2. लघुत्तरी प्रश्न (सातपैकी कोणतेही सहा) : [6×5=30]

Short answer question (any six out of seven):

- a) साहित्यीक संशोधनाचे महत्व लिहा.
Write importance of literary research.
- b) अनुसंधानातील त्रुटी व पूर्वाग्रह यांवर टिप्पणी लिहा.
Write short note on error and bias in research.
- c) ए. एस. यु. औषधांचे फारमाकोव्हिजिलन्स वर टिप्पणी लिहा.
Write short note on Pharmacovigilance for ASU drugs.
- d) काष्ठ औषधींचे मानकीकरणाचे संशोधनात महत्व.
Importance of Standardization of herbal drugs.
- e) संशोधनात Bioinformatics ची आवश्यकता लिहा.
Need of Bioinformatics in research.
- f) गुणात्मक व परिणामात्मक संशोधन वर्णन करा.
Define pure & applied research.
- g) टिपा लिहा - पबमेड.
Write short note on PubMed.

SECTION-"B" (40 Marks)

3. दीर्घोत्तरी प्रश्न (दोनपैकी कोणतेही एक):

[1×15=15]

Long answer question (any one out of two):

a) मापदंडविरहित चाचणी वर्णन करून विलकॉक्सन टेस्ट स्पष्ट करा.

Describe Non Parametric tests & Elaborate Wilcoxon test.

b) प्रोबॅबिलिटी (संभाव्यता) ची व्याख्या, प्रकार व नियम सविस्तर वर्णन करा.

Write definition, types and laws of probability.

4. लघुत्तरी प्रश्न (सहापैकी कोणतेही पाच):

[5×5=25]

Short answer question (any five out of six):

a) रिलेटिव रिस्क व रिस्क डिफरन्स वर्णन करा.

Describe relative risk and risk difference.

b) झेड (Z) टेस्ट थोडक्यात लिहा.

Short note on Z test.

c) सोदाहरण स्पष्ट करा "स्ट्रॅटिफाईड व सिस्टेमॅटिक क्लस्टर सॅम्पलिंग".

Describe with illustration "Stratified and systematic cluster sampling".

d) "सामान्य संभाव्यता वक्र" बाबत लिहा.

Write Normal Probability Curve.

e) वर्णन करा "स्केल्स ऑफ मेजरमेंट".

Describe "Scales of measurements"

f) रेट, रेशिओ व प्रोपोरशन सोदाहरण स्पष्ट करा.

Describe with illustrations Rate Ratio and Proportion.



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(Dravyaguna Vigyana)/(Rasa Shastra & Bhaisajya Kalpana)/
(Kaumarbhrtya-Bala Roga)/(Swastha Vritta & Yoga)/
(Swasthivritta)/(Kayachikitsa)/(Panchkarma)/(Agad Tantra Vyava
Evum Vidhival)/(Agad Tantra)/(Rog Nidan Evum Vikriti Vigyan)/
(Rasayan & Vajikaran)/(Manovigyan Evum Manas Rog)/(Prasuti
Tantra & Stri Roga)/(Shalya Tantra Samanya-Gen. Surgery)/
(Shalya - Kshara Karma Evum Anushstra Karma)/(Shalaky-
Netra Rog Vigyan)/(Shalya Tantra) (Preliminary M.D. Ayurveda
(2012) Syllabus is applicable to Preliminary M.D. Ayurveda
(2017) Students w.e.f Winter - 2018 Examination)

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Total Marks : 100

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SECTION - A (60 Marks)**(Research Methodology)**

1. दीर्घोत्तरी प्रश्न (तीन पैकी कोणतेही दोन) : [2 × 15 = 30]

Long answer question (any two out of three) :

- संशोधनातील बायस् चे प्रकार वर्णन करून "गुड क्लिनिकल प्रॅक्टिसेस" बद्दल लिहा.
Describe types of Bias in research and explain Good Clinical Practices.
- प्रत्यक्षादी प्रमाण स्पष्ट करून त्यांचे प्रकार व आयुर्वेद संशोधनातील महत्त्व व अनुप्रयोग विशद करा.
Explain concept of Pratyakshadi Praman Pariksha, state their types & application for research in Ayurveda.
- रेन्डमाइझड कंट्रोल ट्रायल व्याख्या स्पष्ट करून त्याचे प्रकार लिहा.
Write Randomized Controlled Trials and their types.

2. लघुत्तरी प्रश्न (सातपैकी कोणतेही सहा) :

[6 × 5 = 30]

Short answer question (any six out of seven):

- औषधांच्या विकासाच्या प्रक्रियेचा संक्षिप्त परिचय लिहा.
Write brief introduction to the process of Drug Development.
- हस्तलिखित शास्त्र : टिप्पणी लिहा.
Write short note on 'Manuscriptology'.
- निरीक्षणात्मक संशोधन टीप लिहा.
Write short note on observational research.
- जैव निती समिती कार्य लिहा.
Write functions of Animal Ethics Committee.
- ASU औषधांसाठी फार्माकोव्हिलन्सची आवश्यकता, व्याप्ती आणि उद्दीष्ट्ये लिहा.
State Need, Scope & objective of Pharmacovigilance for ASU Drugs.
- ट्रॅडीशनल नॉलेज डीज्जिटल लायब्ररी-टिप्पणी लिहा.
Write a note on Traditional Knowledge Digital Library.
- संदर्भ व ग्रंथसूची लिहिण्याच्या विविध पद्धती लिहा.
Write different types of referencing and Bibliography.

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SECTION - B (40 Marks)
(Medical Statistics)

3. दीर्घोत्तरी प्रश्न (दोन पैकी कोणतेही एक) :

[1 × 15 = 15]

Long answer question (any one out of two) :

a) “वैविध्य” व्याख्या लिहून त्याचे विविध प्रकार लिहा.

Define variability and write different types of variability.

b) संख्यात्मक आधार सामुग्री सादरीकरणाच्या पद्धतींचे वर्णन करा.

Describe methods of presentation of Quantitative Data.

4. लघुत्तरी प्रश्न (सहा पैकी कोणतेही पाच) :

[5 × 5 = 25]

Short answer question (any five out of six):

a) मध्य - गुण आणि दोष.

Mean- Merits & Demerits.

b) संभावनियता व्याख्या आणि प्रकार.

Definitions & types of probability.

c) प्राकृत वंटन आणि प्राकृत वक्र.

Normal distribution & Normal curve.

d) "Z" परीक्षण.

"Z" Test.

e) रँडम सॅम्पलींग चे फायदे.

Merits of Random Sampling.

f) पदमाला प्रकार लिहा.

Write types of series.



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Preliminary M.D./M.S. Ayurveda (2012)/(2017) Examination,
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RESEARCH METHODOLOGY AND MEDICAL STATISTICS - I

(Agad tantra)/(Mano vigyana Evum Manas Roga) (Shalya)
(Shalakya) (Panchakarma) (Swasthavritta) (Kayachikitsa)
(Rasayan Evam Vajikaran) (Prasuti Evum Stri roga)
(Kaumarbhritya - Bala Roga) (Rasashastra Evam Bhaishajya
Kalpana) (Roga Nidana Avum Vikriti Vigyana) (Kirya Sharir)
(Dravyaguna Vigyana) (Ayurved Samhita Evam Siddhant) (Rachna
Sharir) (Ayurvedic Pharmaceuticals-Ras Shastra & Bhaishajya
Kalpana) (Shalya - Kshara Karma Avum Anushastra Karma)
(Shalakya Tantra - Netra Roga) (Rasayan - Vajikaran) (Shalya
Tantra - Samanya) (Agadtantra Avum Vidhi Vaidyaka) (Rasa
shastra & Bhaishajya Kalpana) (Swastha Vritta & Yoga)

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Ayurveda (2017) Students w.e.f. Winter - 2018 Examination)

Total Duration : 3 Hours

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SECTION - "A" (60 Marks)

33001

1. दिर्घोत्तरी प्रश्न (तीन पैकी कोणतेही दोन) :

[2 × 15 = 30]

Long answer question (any two out of three) :

a) पशु प्रयोगांशी संबंधित नैतिक पैलू वर्णन करुन अॅनिमल एथिक्स कमिटी ची कार्ये लिहा.
State ethical aspects related to animal experimentation & write functions of Animal Ethics Committee.

b) चिकित्सालयीन चाचण्यांचे विविध टप्पे सविस्तर वर्णन करा.
Describe "Phases of Clinical trials" in detail.

c) वैद्यकीय संशोधनात नीतीमत्ता चे महत्व विषद करा. इन्स्टीट्युशनल इथिक्स कमिटी चे सविस्तर वर्णन लिहा.

Describe the importance of Ethics in medical research. Write in detail about Institutional Ethics Committee (IEO).

2. लघुत्तरी प्रश्न (सात पैकी कोणतेही सहा) :

[6 × 5 = 30]

Short answer question (any six out of seven) :

a) कोहोर्ट स्टडीज वर संक्षिप्त टिप्पणी लिहा.

Write short note on Cohort Studies.

b) CDCSO आणि OECD मार्गदर्शक तत्वांवर संक्षिप्त टिप्पणी लिहा.

Write short note on CDCSO & OECD guidelines.

c) बौद्धिक मालमत्ता अधिकार - थोडक्यात वर्णन करा.

Describe in brief about Intellectual Property rights.

d) रेफ्रन्सींग व बीबलीओग्राफी चे विविध प्रकार वर्णन करा.

Write different types of referencing and bibliography.

e) हायपोथेसिस तयार करण्यासंबंधी संक्षिप्त वर्णन लिहा.

Write short note on Formulation of Hypothesis.

f) साहित्यानुसंधान चे संक्षिप्त वर्णन करा.

Describe in brief - Literary research.

g) Bioinformatics चे संक्षिप्त वर्णन लिहा.

Write short note on Bioinformatics

33001

SECTION - "B" (40 Marks)

3. दिर्घोत्तरी प्रश्न (दोन पैकी कोणतेही एक) :

[1 × 15 = 15]

Long answer question (any **one** out of **two**) :

a) प्रश्नावलीचे प्रकार व उपयोग कोणते? प्रश्नावली कशी तयार करतात? सोदाहरण वर्णन करा.

What are types and uses of Questionnaire? How it is designed? Describe with examples.

b) वैद्यकीय उपरुग्ण अनुसंधानासाठी नमुना संख्या कशी निर्धारित करतात?

How sample size for clinical trials is determined?

4. लघुत्तरी प्रश्न (सहा पैकी कोणतेही पाच) :

[5 × 5 = 25]

Short answer question (any **five** out of **six**) :

a) मध्यगा

Median

b) प्रमाणिक विचलन

Standard Deviation

c) सहसंबंध

Correlation

d) पाय आकृती

Pie chart

e) संभाव्यतेचा बेरीज नियम

Addition law of Probability

f) तौलनिक संभाव्यता

Odds ratio

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[Total No. of Pages : 3

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SECTION - "A" (60 Marks)

[2 × 15 = 30]

1. दिर्घोत्तरी प्रश्न (तीन पैकी कोणतेही दोन) :

Long answer question (any two out of three) :

- a) पशु प्रयोगांशी संबंधित नैतिक पैलू वर्णन करुन अॅनिमल एथिक्स कमिटी ची कार्ये लिहा.
State ethical aspects related to animal experimentation & write functions of Animal Ethics Committee.
- b) चिकित्सालयीन चाचण्यांचे विविध टप्पे सविस्तर वर्णन करा.
Describe "Phases of Clinical trials" in detail.
- c) वैद्यकीय संशोधनात नीतीमत्ता चे महत्व विषद करा. इन्स्टीट्युशनल इथिक्स कमिटी चे सविस्तर वर्णन लिहा.
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Short answer question (any six out of seven) :

- a) कोहोर्ट स्टडीज वर संक्षिप्त टिप्पणी लिहा.
Write short note on Cohort Studies.
- b) CDCSO आणि OECD मार्गदर्शक तत्वांवर संक्षिप्त टिप्पणी लिहा.
Write short note on CDCSO & OECD guidelines.
- c) बौद्धिक मालमत्ता अधिकार - थोडक्यात वर्णन करा.
Describe in brief about Intellectual Property rights.
- d) रेफ्रन्सींग व बीबलीओग्राफी चे विविध प्रकार वर्णन करा.
Write different types of referencing and bibliography.
- e) हायपोथेसिस तयार करण्यासंबंधी संक्षिप्त वर्णन लिहा.
Write short note on Formulation of Hypothesis.
- f) साहित्यानुसंधान चे संक्षिप्त वर्णन करा.
Describe in brief - Literary research.
- g) Bioinformatics चे संक्षिप्त वर्णन लिहा.
Write short note on Bioinformatics

33001

SECTION - "B" (40 Marks)

3. दिर्घोत्तरी प्रश्न (दोन पैकी कोणतेही एक) :

[1 × 15 = 15]

Long answer question (any one out of two) :

a) प्रश्नावलीचे प्रकार व उपयोग कोणते? प्रश्नावली कशी तयार करतात? सोदाहरण वर्णन करा.

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b) वैद्यकीय उपरुण अनुसंधानासाठी नमुना संख्या कशी निर्धारित करतात?

How sample size for clinical trials is determined?

4. लघुत्तरी प्रश्न (सहा पैकी कोणतेही पाच) :

[5 × 5 = 25]

Short answer question (any five out of six) :

a) मध्यगा

Median

b) प्रमाणिक विचलन

Standard Deviation

c) सहसंबंध

Correlation

d) पाय आकृती

Pie chart

e) संभाव्यतेचा बेरीज नियम

Addition law of Probability

f) तौलनिक संभाव्यता

Odds ratio

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Preliminary M.D./M.S. Ayurveda (2012)/(2017) (Ayurved Samhita & Siddhanta)/(Rachana Sharir)/(Kriya Sharir)/(Kaumarbhritya-Bala Roga)/(Swastha Vritta & Yoga)/(Kayachikitsa)/(Roga Nidana Avum Vikriti Vigyan)/(Panchkarma)/(Agad Tantra Avum Vidhi Vaidyaka)/(Rasa Shastra & Bhaishajya Kalpana)/(Rasayan & Vajikaran)/(Prasuti Avum Stri Roga)/(Shalya Tantra - Samanya)/(Shalya - Kshara Karma Avum Anushastra Karma)/(Shalaky Tantra - Netra Roga)/(Dravyaguna Vigyana)/(Swasthavritta)/(Mano Vigyana Evum Manas Roga)/(Shalya)/(Shalaky)/(Agad Tantra)

Examination, (Phase - III) Winter - 2024

RESEARCH METHODOLOGY AND MEDICAL STATISTICS - I

Preliminary M.D. Ayurveda (2012) Syllabus is applicable to Preliminary M.D. Ayurveda (2017) Students w.e.f. Winter - 2018 Examination)

Total Duration : 3 Hours

Total Marks : 100

- Instructions :**
- 1) Use **black ball point pen only.**
 - 2) Do **not** write anything on the **blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) All questions are **compulsory.**
 - 4) The number to the **right** indicates **full marks.**
 - 5) Draw diagrams **wherever necessary.**
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) Use a common answerbook for **all** sections.

SECTION - A (60 Marks)

1. दीर्घोत्तरी प्रश्न (तीनपैकी कोणतेही दोन) :

[2×15=30]

Long answer questions (any two out of three) :

- a) 'अनुसंधान' आणि 'रिसर्च' यांच्या व्याख्या लिहून आयुर्वेद शास्त्रातील अनुसंधानाची आवश्यकता सविस्तर लिहा.

Define the terms 'Anusandhan' & 'Research'. Write in detail, the need of Research in the field of Ayurveda.

- b) Drug development Process ची माहीती लिहून Drug discovery मधील नवीन पद्धती लिहा.

Write brief introduction to the process of Drug development with latest trends in Drug discovery.

- c) रॅण्डमाईज्ड कन्ट्रोल ट्रायल (R.C.T.) व त्यांच्या प्रकारांचे वर्णन करा.

Describe R.C.T. (Randomized Control Trial) & their types in detail.

2. लघुत्तरी प्रश्न (सातपैकी कोणतेही सहा) :

[6×5=30]

Short answer questions (any six out of seven) :

- a) Cohort studies थोडक्यात वर्णन करा.

Write brief note on Cohort studies.

- b) टि.के.डि.एल. वर्णन करा.

Describe TKDL.

- c) (Institutional Ethics Committee) आई.इ.सी. - थोडक्यात वर्णन करा.

Write brief information about Institutional Ethics Committee (IEC).

- d) अनुसंधान लेखाची IMRAD रचना वर्णन करा.

Explain IMRAD structure of research article.

- e) ASU औषधांकरिता Pharmacovigilance थोडक्यात वर्णन करा.

Write brief note on Pharmacovigilance for ASU drugs.

- f) हस्तलिखितांचे वाङ्मयीन संशोधनातील महत्त्व लिहा.

Write importance of Manuscripts in Literary Research.

- g) PubMed Research database बदल माहिती लिहा.

Describe PubMed Research database.

SECTION - B (40 Marks)

33001

3. दीर्घोत्तरी प्रश्न (दोनपैकी कोणतेही एक) :

[1×15=15]

Long answer question (any one out of two) :

a) वैविध्याचे प्रकार लिहून प्रमाणित विचलन या वैविध्य मापनाचे वर्णन करा.

Explain types of Variability and describe standard deviation.

b) प्रतिचयन पद्धती सविस्तर लिहा.

Write in detail about Sampling methods.

4. लघुत्तरी प्रश्न (सहापैकी कोणतेही पाच) :

[5×5=25]

Short answer questions (any five out of six) :

a) आधार सामग्री संग्रहण पद्धती लिहा.

Explain types of Data collection methods.

b) अन्वोव्हा परिक्षण वर्णन करा.

Explain ANOVA Test.

c) प्राकृत वितरण थोडक्यात लिहा.

Write in short - Normal Distribution.

d) गणिती मध्य वर्णन करा.

Explain Arithmetic mean.

e) प्रकार 1 आणि प्रकार 2 विभ्रम वर्णन करा.

Explain Type 1 and Type 2 error.

f) टिप लिहा - महत्त संख्याशास्त्र.

Write short note on vital statistics.

