

गोंय विद्यापीठ

ताळगांव पठार,

गोंय - ४०३ २०६

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(Accredited by NAAC)

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GU/Acad-Admissions/Ph.D./2024/59

Date: 30/08/2024

NOTIFICATION

GOA UNIVERSITY PH.D. ENTRANCE TEST (GU-PET) – August 2024

Goa University announces the conduct of the GOA UNIVERSITY – PH. D. ENTRANCE TEST (GU-PET) August 2024 to qualify for admission to the various Ph.D. Programmes listed as **Annexure-I**.

Candidates interested in seeking admission to the Ph.D. Programme offered at the University Schools/Recognized Research Centres/Research Institutes are required to either have qualified M.Phil/CSIR-UGC/UGC-NET JRF/Lectureship/SET/SLET/JEST/ICAR-NET/GATE/GPAT Certificate or **have a valid GU-PET Certificate**.

Applications for admission to the Ph.D. Programme shall be notified separately.

Important Dates-GU-PET

Commencement of online application	30/08/2024
Last Date for applying online	17/09/2024
Conduct of Goa University - Ph.D. Entrance Test (GU-PET)	03/10/2024 & 04/10/2024

1. IMPORTANT POINTS:

- Candidates who have qualified at any of the National level Tests such as CSIR-UGC/UGC NET JRF/Lectureship/SET/SLET/JEST/ICAR-NET Examinations of different Indian States, GATE/GPAT with a valid Certificate **ARE NOT REQUIRED** to apply for the GU-PET.
- Regular M.Phil. Degree holders are also exempted from appearing at the GU-PET.
- Candidates who have completed M.Phil. through distance mode are not exempted from answering the GU-PET.
- Senior Citizens who are otherwise qualified shall also be exempted from appearing at the GU-PET.

2. ELIGIBILITY:

Eligibility to answer the GU-PET is governed by Ordinance OA-40 which is available on the University website www.unigoa.ac.in. Interested candidates are required to refer to Ordinance OA-40 and this Notification for details including eligibility criteria before applying.

- (a) A candidate who has obtained a 1-year/2-Semester Master's Degree Programme after a 4-year/8-Semester Bachelor's Degree Programme or a 2-year/4-Semester Master's Degree Programme after a 3-year Bachelor's Degree Programme or qualifications declared equivalent to the Master's Degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or an

equivalent qualification from a foreign educational institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution.

or

(b) A candidate seeking admission after a 4-year/ 8 Semester Bachelor's Degree Programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed.

or

(c) Candidates who have completed the M.Phil. Programme with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of educational institutions, shall be eligible for admission to the PhD Programme.

ii. A relaxation of 5% marks or its equivalent grade shall be given for those belonging to SC/ST/OBC (non-creamy layer [NCL])/Person with Disability (PwD), Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time shall be available for (a), (b) and (c) above.

iii. The subject of research shall be that which relates to the main branch/ branches of knowledge chosen by the candidate for the Post Graduate Degree. However, a candidate wishing to conduct research in a subject of an interdisciplinary character shall also be eligible for registration. The applications of such candidates shall be considered by following the procedure set out under OA-40.2.

3. ENTRANCE TEST

i. The Entrance Test for admission to the PhD Programme shall consist of two Papers of equal weightage: Paper I on Research Methodology and the Paper II on the subject in which the candidate desires to take admission. (Refer 6. For details)

ii. Paper I, Research Methodology, shall be different for students of the Disciplines of Science and for students of Disciplines of Languages, Humanities, Commerce, Management Studies, Social Sciences, Law, Education and Music. Paper I shall be of two hours duration and shall consist of 50 multiple choice/ objective type questions for 100 marks (2 marks each). (Refer 6. For details)

iii. Paper II shall be subject specific, of three hours duration and shall carry a total of 100 marks. Paper II shall consist of 50 multiple choice/objective type questions for 50 marks (1 mark each) and theoretical/descriptive questions for 50 marks.

iv. The candidates are permitted to apply for GU-PET in a maximum of 3 (three) subjects.

v. Candidates who are awaiting results of their final year Post Graduate Examinations are also eligible to apply for GU-PET.

vi. The conversion formula for conversion of Grade to percentage shall be as per Ordinance OA-16 for candidates of Goa University. Other University candidates shall also follow this formula in absence of conversion factor provided by their parent University:

4. APPLICATION PROCESS:

Candidates are required to apply online on GUMS Portal by visiting the below link.

APPLICATION PORTAL LINK: <https://tinyurl.com/2p8nbxed>

Documents to be uploaded at the time of submitting online application:

- i. Statement of Marks of Post-Graduation.
- ii. Certificate of Passing Post Graduation Degree
- iii. Valid Category Certificate (if applicable), OBC (non-creamy layer) certificate is valid for 3years.
- iv. EWS Certificate issued for the current financial year only shall be valid which is issued on or after 1st April 2024 shall be valid.
- v. Candidate applying under Reserved categories are required to submit a valid Certificate issued to that effect by the Officer of the rank of the Mamlatdar or any other Authorized Officer as notified by the Government of Goa.

5. APPLICATION FEES (Non-Refundable):

UR Category/OBC(NCL)	SC/ST	Persons with Disabilities
Rs.700/- per Subject	Rs.350/per Subject	Nil

Applicants are eligible to apply for a maximum of three subjects.

Candidates are required to check/confirm that the information entered is correct before paying and submitting their application. Application fees once paid shall not be refunded under any circumstances.

6. SCHEME OF GU-PET:

Paper	Syllabus	Marks	Duration
<u>Paper-I</u> Paper I, Research Methodology, shall be different for students of the Disciplines of Science and for students of Disciplines of Languages, Humanities, Commerce, Management Studies, Social Sciences, Law, Education and Music. Paper I shall be of two hours duration and shall consist of 50 multiple choice/ objective type questions for 100 marks (2 marks each).	Refer Annexure II	100	2:00 hours
<u>Paper II (subject specific)</u>	Paper II shall be as per the syllabus for CSIR-UGC/ UGC NET examinations.	50	3:00 hours
Section A MCQs carrying 1 mark each. There shall be no Negative marking.	In case of Marine Science, Section A of Paper II which involves MCQ's shall be common to all the four Specializations. However, Section B of Paper II which involves descriptive questions shall be		

Section B Descriptive Questions There shall be internal choice	based on the specializations. Syllabus of subjects of Botany, Zoology, Microbiology and Biotechnology under the School of Biological Sciences and Biotechnology are Notified herewith. https://www.unigoa.ac.in/systems/c/admissions/announcementsnotices.html	50	
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To be eligible for the admission to the Ph. D. Programme, a candidate shall have to secure a minimum of 40% marks in each Paper (Paper I and Paper II) and secure a minimum of 50 % marks overall in the Entrance Test. A relaxation of 5% marks overall shall be given for those belonging to SC/ST/OBC (non-creamy layer [NCL])/Person with Disability (PwD)/ Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission.

The Entrance Test score shall be valid for two Academic Years; the academic year in which the candidate cleared the test and one preceding academic year Candidates who qualify for the test shall be eligible to apply for admission to the Ph.D. Programme as and when notified subject to availability of seats in the subject of their choice.

7. ASSISTANCE:

For assistance and clarifications candidates may send their queries to Assistant Registrar (Admission Section) via Google Form Link: <https://forms.gle/N935KmSz3SgkZG7NA>

Sd/-

(Prof. V . S . Nadkarni)
 REGISTRAR

To

1. Deans of Schools/Vice Deans/Programme Director
2. Principals/Directors of recognized Research Centres/Institutions.

Copy to:

1. Dy. Registrar (Academic)
2. AR to Vice Chancellor's Secretariat
3. AR to Registrar

GOA UNIVERSITY

Taleigao Plateau, Goa 403206

List of Ph.D. Programmes for which GU-PET shall be conducted

Sr. No	Programme Name
1	Ph.D. in English
2	Ph.D. in French
3	Ph.D. in Hindi
4	Ph.D. in Konkani
5	Ph.D. in Marathi
6	Ph.D. in History
7	Ph.D. in Political Science
8	Ph.D. in Sociology
9	Ph.D. in Philosophy
10	Ph.D. in Women's Studies
11	Ph.D. in Biotechnology
12	Ph.D. in Botany
13	Ph.D. in Microbiology
14	Ph.D. in Zoology
15	Ph.D. in Marine Science
16	Ph.D. in Earth Science
17	Ph.D. In Marine Microbiology
18	Ph.D. in Chemistry
19	Ph.D. in Biochemistry
20	Ph.D. in Physics
21	PhD. in Electronics
22	Ph.D. Mathematics
23	Ph.D. in Commerce
24	Ph.D. in Economics
25	Ph.D. in Management
26	Ph.D. in Computer Science
27	Ph.D. in Law
28	Ph.D. in Music
29	Ph.D. in Pharmacy
30	Ph.D. in Education
31	Ph.D. in Geography
32	Ph.D. in Civil Engineering
33	Ph.D. in Electrical & Electronics Engineering
34	Ph.D. in Electronics & Telecommunication Engineering
35	Ph.D. in Mechanical Engineering

Syllabus for GU-PET Paper I (Disciplines of Science)
Research Methodology

Unit 1: Logical Reasoning

Analytical Reasoning, Syllogisms, Analogies, Directions, Coding-Decoding, Classification, Alphabet Series, Symbols and Notations, Similarities and Differences, Number Series, Blood Relationships, Arrangements, Statements, Data Sufficiency, Non-verbal Reasoning, Visual Ability, puzzles.

Unit II: Quantitative Aptitude

Simplifications, Number System, Average, Algebra, Percentage Time & Work, Simple & Compound Interest, Time & Speed, HCF, LCM Problems, Area, Profit & Loss, Ratio & Proportion, Permutation & Combination

Unit III: Data Interpretation & Graphical Analysis

Mean, Median, Mode, Measures of Dispersion, Graphical Analysis: Bar Graph, Line Graph, Pie-Chart and Tabulation

Unit IV: Comprehension

A passage of text be given. Questions be asked from the passage to be answered.

Unit V: General Knowledge

Indian History, Indian Polity, Geography, Indian Economy, Science and Technology, Art, Culture and Sports

Unit-VI: Communication

Definition, Nature and Scope of Communication, Importance and Purpose of Communication, Process of Communication, Types of Communication, Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication, Barriers to effective communication, Mass-Media and Society.

Unit VII: Information and Communication Technology (ICT)

Fundamentals of Computers: Characteristics, Types & Applications of Computers, Hardware of Computer: Input, Output & Storage Devices, Software of Computer: Concept & Types, Computer Memory: Concept & Types, Viruses & its Management

Computer Networks & Internet: Concept, Types & Functions of Computer Networks, Internet and its Applications, E-mail, Web Browsers & Search Engines, Legal & Ethical Issues

ICT in Education: Concept & Importance of ICT, Need of ICT in Education, Scope of ICT in Teaching Learning Process, Publication Evaluation, and Research and Administration.

Digital initiatives in higher education, ICT and Governance.

Unit VIII: Research Aptitude

- Research: Meaning, Types, and Characteristics, Positivism and Post-positivistic approach to research. Methods of Research: Experimental, Descriptive, Historical, Qualitative and quantitative methods.
- Steps of Research.
- Thesis and Article writing: Format and styles of referencing.
- Application of ICT in research.
- Research ethics.

Unit IX: People, Development and Environment

- Development and environment: Millennium development and Sustainable development goals.
- Human and environment interaction: Anthropogenic activities and their impacts on environment.
- Environmental issues: Local, Regional and Global; Air pollution, Water pollution, Soil pollution, Noise pollution, Waste (solid, liquid, biomedical, hazardous, electronic), Climate change and its Socio-Economic and Political dimensions.
- Impacts of pollutants on human health.
- Natural and energy resources: Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests.
- Natural hazards and disasters: Mitigation strategies.
- Environmental Protection Act (1986), National Action Plan on Climate Change, International agreements/efforts -Montreal Protocol, Rio Summit, Convention on Biodiversity, Kyoto Protocol, Paris Agreement, International Solar Alliance.

Unit X: Higher Education System

- Institutions of higher learning and education in ancient India,
- Evolution of higher learning and research in Post Independence India,
- Oriental, Conventional and Non-conventional learning programmes in India,
- Professional, Technical and Skill Based education,
- Value education and environmental education,
- Policies, Governance, and Administration.

Syllabus for GU-PET Paper I
(Disciplines of Languages, Humanities, Commerce, Management Studies, Social Sciences, Law, Education and Music)
Research Methodology

NOTE: Five questions each carrying 2 marks are to be set from each Unit.

Unit-I **Teaching Aptitude**

- Teaching: Concept, Objectives, Levels of teaching (Memory, Understanding and Reflective), Characteristics and basic requirements.
- Learner's characteristics: Characteristics of adolescent and adult learners (Academic, Social, Emotional and Cognitive), Individual differences.
- Factors affecting teaching related to: Teacher, Learner, Support material, Instructional facilities, Learning environment and Institution.
- Methods of teaching in Institutions of higher learning: Teacher centred vs. Learner centred methods; Off-line vs. On-line methods (Swayam, Swayamprabha, MOOCs etc.).
- Teaching Support System: Traditional, Modern and ICT based.
- Evaluation Systems: Elements and Types of evaluation, Evaluation in Choice Based Credit System in Higher education, Computer based testing, Innovations in evaluation systems.

Unit-II **Research Aptitude**

- Research: Meaning, Types, and Characteristics, Positivism and Post- positivistic approach to research.
- Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods.
- Steps of Research.
- Thesis and Article writing: Format and styles of referencing.
- Application of ICT in research.
- Research ethics.

Unit-III **Comprehension**

- A passage of text be given. Questions be asked from the passage to be answered.

Unit-IV **Communication**

- Communication: Meaning, types and characteristics of communication.
- Effective communication: Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication.
- Barriers to effective communication.
- Mass-Media and Society.

Unit-V **Mathematical Reasoning and Aptitude**

- Types of reasoning.
- Number series, Letter series, Codes and Relationships.
- Mathematical Aptitude (Fraction, Time & Distance, Ratio, Proportion and Percentage, Profit and Loss, Interest and Discounting, Averages etc.).

Unit-VI **Logical Reasoning**

- Understanding the structure of arguments: argument forms, structure of categorical propositions, Mood and Figure, Formal and Informal fallacies, Uses of language, Connotations and denotations of terms, Classical square of opposition.
- Evaluating and distinguishing deductive and inductive reasoning.
- Analogies.
- Venn diagram: Simple and multiple use for establishing validity of arguments.
- Indian Logic: Means of knowledge.
- Pramanas: Pratyaksha (Perception), Anumana (Inference), Upamana (Comparison), Shabda (Verbal testimony), Arthapatti (Implication) and Anupalabddhi (Non-apprehension).
- Structure and kinds of Anumana (inference), Vyapti (invariable relation), Hetvabhasas (fallacies of inference).

Unit-VII **Data Interpretation**

- Sources, acquisition and classification of Data.
- Quantitative and Qualitative Data.
- Graphical representation (Bar-chart, Histograms, Pie-chart, Table-chart and Line-chart) and mapping of Data.
- Data Interpretation.
- Data and Governance.

Unit-VIII **Information and Communication Technology (ICT)**

- ICT: General abbreviations and terminology.
- Basics of Internet, Intranet, E-mail, Audio and Video-conferencing.
- Digital initiatives in higher education.
- ICT and Governance.

Unit-IX **People, Development and Environment**

- Development and environment: Millennium development and Sustainable development goals.
- Human and environment interaction: Anthropogenic activities and their impacts on environment.
- Environmental issues: Local, Regional and Global; Air pollution, Water pollution, Soil pollution, Noise pollution, Waste (solid, liquid, biomedical, hazardous, electronic), Climate change and its Socio-Economic and Political dimensions.
- Impacts of pollutants on human health.
- Natural and energy resources: Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests.
- Natural hazards and disasters: Mitigation strategies.
- Environmental Protection Act (1986), National Action Plan on Climate Change, International agreements/efforts -Montreal Protocol, Rio Summit, Convention on Biodiversity, Kyoto Protocol, Paris Agreement, International Solar Alliance.

Unit-X **Higher Education System**

- Institutions of higher learning and education in ancient India.
- Evolution of higher learning and research in Post Independence India.
- Oriental, Conventional and Non-conventional learning programmes in India.
- Professional, Technical and Skill Based education.
- Value education and environmental education.
- Policies, Governance, and Administration.

NOTE: Five questions each carrying 2 marks are to be set from each Unit.