Children's RESEARCH UNIVERSITY

Syllabus for Ph.D. Entrance Test

Paper-1

Research Methodology

1. **Pure & Applied Science and Technology** (Physics & Environmental Science) (Annexure-1 Syllabus of Pure & Applied Science and Technology)
2. **Social Sciences** (Education, Psychology, Social Work, Home Sciences, Physical Education, History, Management) (Annexure-2 Syllabus of Social Sciences)
3. **Language, Literature and Art** (Annexure-3 Syllabus of English, Gujarati, Sanskrit and Performing Arts)
4. **Holistic Child Development** (Annexure-4 Syllabus of Holistic Child Development)

Paper-2

Subject/ Domain Specific

1. The syllabus of Paper-2 for each of the above subject (other than HCD) is as per **UGC NET** syllabus for the concerned PG subject.
2. The syllabus alongwith reference materials of Paper-2 for Holistic Child Development subject is uploaded separately on the University Website.

Paper-1

Research Methodology

Pure & Applied Sciences

(Annexure-1 : Syllabus of Physics and Environmental Science)

Pure & Applied Sciences

Chapter – 1 FUNDAMENTALS OF RESEARCH

- Introduction to research methodology, Meaning of research, definition, characteristic features of good research, qualities of a good researcher, objectives, significance of research, types of research, interdisciplinary research, research ethics, scientific method and its basic postulates

Chapter – 2 RESEARCH FRAMEWORK

- Introduction of Literature review, Identifying gap in Research, Research process, Defining and formulating research problem, extensive research survey, development of hypothesis, preparing research design, experimental work or data collection, data analysis, testing of hypothesis, interpretation, conclusions, report writing, Review article writing

Chapter –3 RESEARCH PROPOSAL DESIGN

- Preparing a Research proposal, main ingredients and sequence, motivation, literature survey and background work, aim and objectives, research problem, national and international status of the research problem, methodology and time frame, possible outcome of the research project, justifications for financial assistance

Chapter – 4 ARTICLE WRITING

- Writing research papers or report, defining aim, scope and expectations of the paper, using library and internet for literature survey, and data base resources by identifying reputable online sources, preparing draft, plagiarism testing, revision to avoid plagiarism, polishing language and preparing final draft, distinction between research paper, article, review, report and thesis, distinction between seminar, conference, symposium, workshop

Pure & Applied Sciences

Chapter – 5 EFFECTIVE RESEARCH PUBLICATION

- Preparation of the Manuscript and Writing style, Reference Style: APA, MLA, Chicago, referencing and references management tools, Using Reference Management Software: EndNote/ Zotero/ Mendeley, Distinction between research paper, article, review, report and thesis. Distinction between seminar, conference, symposium, workshop, tracking citation and impact using tools like Google Scholar, Scopus and Research Gate, General Finder, Selection and submission Process

Paper-1

Research Methodology

Social Sciences

(Annexure-2 : Syllabus of Education, Psychology, Social Work, Home Sciences, Physical Education, History, Management)

Social Sciences

1. Research: Meaning, Types, and Characteristics

Meaning and Definition of Research

- Nature, purpose, and objectives of research.
- Characteristics of research.

Types of Research

- Basic, Applied, and Action Research.
- Fundamental vs. Applied Research.
- Interdisciplinary and Multidisciplinary research.
- Qualitative vs. Quantitative research.

Characteristics of Good Research

- Objectivity, validity, reliability, and generalizability.

Philosophical Foundations

- Positivism and Post-positivism

2. Methods of Research: Qualitative and Quantitative

Experimental Method

- Variables: independent, dependent, control, intervening
- Experimental research designs
- Internal and external validity.

Descriptive Method

- Survey studies, correlational studies.
- Tools: questionnaire, interview, observation.

Historical Method

- Sources of historical data (primary, secondary).
- External and internal criticism of sources.

Qualitative Methods

- Grounded theory, ethnography, phenomenology, narrative analysis, case study.

- Data collection techniques: Interviews, focus groups, participant observation.
- Coding and thematic analysis, content analysis, triangulation

Population and Sample

- Population and sample concept
- Sampling techniques: probability and non-probability sampling

Hypotheses testing

- Hypotheses formulation, types and testing.
- Measurement scales (nominal, ordinal, interval, ratio).
- Statistical techniques: Descriptive statistics, inferential statistics.

3. Steps of Research

- Identification and formulation of the research problem.
- Review of related literature.
- Formulation of objectives, research questions, and hypotheses.
- Research design.
- Sampling and selection of tools/instruments.
- Data collection procedures.
- Data analysis and interpretation.
- Report writing and presentation of findings.

4. Thesis and Article Writing: Format and Styles of Referencing

Thesis Writing

- Structure: Title page, Abstract, Introduction, Review of Literature, Methodology, Results, Discussion, Conclusion, References, Appendices.

- Formatting guidelines (margins, spacing, pagination, headings).

Referencing Styles

- APA
- In-text citation and reference list.

5. Application of ICT in Research

- Use of e-resources and online databases (Scopus, Web of Science, JSTOR, etc.).
- Reference management tools: Mendeley, Zotero, EndNote.
- Use of statistical software: Excel, SPSS, NVivo.
- Plagiarism detection tools (Turnitin, Drilbit).
- Use of ICT for Data collection:- Google forms, Survey Monkey etc.
- ICT in collaborative research: Google Scholar, ResearchGate, Academia.edu.

6. Research Ethics

- Ethical principles in research: honesty, integrity, objectivity, confidentiality.
- Plagiarism and issues of academic misconduct.
- Ethical treatment of human participants.
- Informed consent, privacy, and data protection.
- Ethical publication practices: authorship, peer review, conflict of interest.

Paper-1

Research Methodology

Language, Literature and Art

(Annexure-3: Syllabus of English, Gujarati, Sanskrit & Performing Arts)

English Language

Unit 1: Concept of Literary Research

- **Terminology and Concept of Research:** Various definitions, interpretations and Gujarati-English synonyms.
- **The Nature of Literary Research:** The difference in the nature of inquiry in the humanities versus the sciences.
- **Scope of Literary Research:** Its role in knowledge creation and critical analysis.
- **Methods of Literary Research:** Qualitative, Quantitative, Descriptive and Analytical methods.
- **Problems in Literary Research:** Challenges from the selection of a research area to the final conclusions.
- **Methods for Textual Criticism and Editing of Medieval Literary Works.**
- **Literary Research and Interdisciplinary Research:** The relationship between literature and fields such as history, sociology, psychology, film studies and visual arts.

Unit 2: Approaches to Literary Research

- Text-oriented Approach
- Author-oriented Approach
- Genre-oriented Approach
- Concept-oriented Approach
- Sociological Approach
- Psychoanalytical Approach
- Comparative Approach
- Historical Approach
- Linguistic Approach
- Environmental (Eco-critical) Approach
- **Multimodal and Visual Analysis Approach:** Analyzing the relationship between text and image in picture-books, graphic novels, films and cartoons.

English Language

Unit 3: Structure and Preparedness for Literary Research

- **Steps in the Research Process:** Identification of research problems, literature review, formulation of research questions, delimitation of research scope, chapter division and bibliography.
- **Sources of Information:**
  - **Primary Sources:** Manuscripts, classical texts, commentaries, literary texts (novels, poetry, plays), authors' manuscripts, letters, interviews, cartoon strips, animated films, YA novels, graphic novels and films.
  - **Secondary Sources:** Critical books, peer-reviewed articles, literary criticism, scholarly interviews and academic journals.

Unit 4: Role of ICT in Research

- **Use of E-resources and Digital Platforms:** JSTOR, MLA, Shodhganga, Academia.edu, ResearchGate.
- **Tools for Literature Review:** Google Scholar, Zotero, Mendeley.
- **Digital Tools for Writing and Collaboration:** Google Docs, Overleaf.
- **Reference Management Software:** Zotero, Mendeley, EndNote.

Unit 5: Research Writing and Ethics

- **Structure of a Research Thesis/Dissertation.**
- **Citation Styles in Literary Research:** MLA Style, APA Style.
- **Publishing and Presenting Research Findings:** Conference papers, journal articles and book chapters.
- **Ethical Issues:**
  - Plagiarism, copyright and citation practices.
  - Understanding Intellectual Property Rights (IPR) and Fair Use.
- **Role of ICT in Ethical Research:**
  - **Use of Plagiarism Detection Tools:** Turnitin, Grammarly.
  - **Online Platforms for Citation:** Zotero, Mendeley, EndNote.
  - **Open-Access Publishing Models.**

Gujarati Language

એકમ ૧: સાહિત્યિક સંશોધન વિભાવના

- **સંશોધન સંજ્ઞા અને વિભાવના:** વિવિધ વ્યાખ્યાઓ, અર્થઘટન અને ગુજરાતી-અંગ્રેજી પર્યાયો.
- **સાહિત્યિક સંશોધનનું સ્વરૂપ:** માનવવિદ્યા અને વિજ્ઞાનમાં સંશોધન પ્રકૃતિનો ભેદ.
- **સાહિત્યિક સંશોધનનું કાર્યક્ષેત્ર:** જ્ઞાનનિર્માણ અને વિવેચનાત્મક વિશ્લેષણમાં તેની ભૂમિકા.
- **સાહિત્યિક સંશોધનની પદ્ધતિઓ:** ગુણાત્મક, સંખ્યાત્મક, વર્ણનાત્મક અને વિશ્લેષણાત્મક પદ્ધતિઓ.
- **સાહિત્યિક સંશોધનની સમસ્યાઓ:** સંશોધન ક્ષેત્રની પસંદગીથી લઈને તારણો સુધીના પડકારો.
- **મધ્યકાલીન સાહિત્યની કૃતિઓના પાઠનિર્ણય અને સંપાદન માટેની પદ્ધતિઓ.**
- **સાહિત્યિક સંશોધન અને આંતરવિદ્યાકીય સંશોધન:** સાહિત્યનો ઇતિહાસ, સમાજશાસ્ત્ર, મનોવિજ્ઞાન, ફિલ્મ સ્ટડીઝ અને વિઝ્યુઅલ આર્ટ્સ જેવા ક્ષેત્રો સાથેનો સંબંધ.

એકમ ૨: સાહિત્યિક સંશોધનના અભિગમ

- કૃતિલક્ષી અભિગમ
- સર્જકલક્ષી અભિગમ
- સ્વરૂપલક્ષી અભિગમ
- વિભાવનાલક્ષી અભિગમ
- સમાજશાસ્ત્રીય અભિગમ
- મનોવિશ્લેષણાત્મક અભિગમ
- તુલનાત્મક અભિગમ
- ઐતિહાસિક અભિગમ
- ભાષાવિજ્ઞાનિક અભિગમ
- પર્યાવરણીય અભિગમ
- **મલ્ટિમોડલ અને દ્રશ્ય વિશ્લેષણ અભિગમ:** ચિત્ર-પુસ્તકો, ગ્રાફિક નવલકથાઓ, ફિલ્મો અને કાર્ટૂનમાં ટેક્સ્ટ અને છબીના સંબંધનું વિશ્લેષણ.

એકમ ૩: સાહિત્યિક સંશોધનનું સ્વરૂપ અને સજ્જતા

- **સંશોધનનાં ક્રમિક સોપાન:** સંશોધન સમસ્યાઓની ઓળખ, સાહિત્ય સમીક્ષા, સંશોધન પ્રશ્નોનું નિર્માણ, સંશોધન કાર્યક્ષેત્રનું સીમાંકન, પ્રકરણ વિભાજન, માહિતીસ્રોત અને સૂચિ.

Gujarati Language

- **માહિતી-સ્રોતઃ**
  - **પ્રાથમિક સ્રોતઃ** હસ્તપ્રતો, શાસ્ત્રીય ગ્રંથો, ભાષ્યો, સાહિત્યિક ગ્રંથો (નવલકથાઓ, કવિતા, નાટકો), લેખકની હસ્તપ્રતો, પત્રો, ઈન્ટરવ્યુ, કાર્ટૂન સ્ટ્રીપ્સ, એનિમેટેડ ફિલ્મો, YA નવલકથાઓ, ગ્રાફિક નવલકથાઓ અને ફિલ્મો.
  - **ગૌણ સ્રોતઃ** વિવેચન પુસ્તકો, સમીક્ષા કરાયેલા લેખો, સાહિત્યિક ટીકા, વિદ્વતાપૂર્ણ ઈન્ટરવ્યુ અને સામયિકો.

એકમ ૪ : સંશોધનમાં ICTની ભૂમિકા

- **ઈ-સંસાધનો અને ડિજિટલ પ્લેટફોર્મનો ઉપયોગઃ** JSTOR, MLA, શોધગંગા, Academia.edu, ResearchGate.
- **સાહિત્ય સમીક્ષા માટેના સાધનોઃ** Google Scholar, Zotero, Mendeley.
- **લેખન અને સહયોગ માટે ડિજિટલ સાધનોઃ** Google Docs, Overleaf.
- **સંદર્ભ વ્યવસ્થાપન સોફ્ટવેરઃ** Zotero, Mendeley, EndNote.

એકમ ૫: સંશોધન લેખન અને નીતિશાસ્ત્ર

- **સંશોધન થીસિસ/મહાશોધ નિબંધનું માળખું.**
- **સાહિત્ય સંશોધનમાં સંદર્ભ શૈલીઓઃ** MLA શૈલી, APA શૈલી.
- **સંશોધન તારણો પ્રકાશિત અને પ્રસ્તુત કરવાઃ** કોન્ફરન્સ પેપર્સ, જર્નલ લેખો અને પુસ્તક પ્રકરણો.
- **નૈતિક મુદ્દાઓઃ**
  - સાહિત્યચોરી, કૉપિરાઇટ અને સંદર્ભ પ્રથાઓ.
  - બૌદ્ધિક સંપદા અધિકારો (IPR) અને વાજબી ઉપયોગની સમજણ.
- **નૈતિક સંશોધનમાં ICTની ભૂમિકાઃ**
  - **સાહિત્યચોરી શોધ સાધનોનો ઉપયોગઃ** ટર્નિટિન, ગ્રામરલી.
  - **સંદર્ભ માટે ઑનલાઈન પ્લેટફોર્મઃ** Zotero, Mendeley, EndNote.
  - **ઓપન-એક્સેસ પ્રકાશન મોડેલ.**

Sanskrit Language

इकाई १: साहित्यिक अनुसंधान की अवधारणा

- शोध की शब्दावली और अवधारणा: विभिन्न परिभाषाएँ, व्याख्याएँ और गुजराती-अंग्रेज़ी पर्यायवाची शब्द।
- साहित्यिक अनुसंधान की प्रकृति: मानविकी बनाम विज्ञान में अन्वेषण की प्रकृति में अंतर।
- साहित्यिक अनुसंधान का दायरा: ज्ञान निर्माण और आलोचनात्मक विश्लेषण में इसकी भूमिका।
- साहित्यिक अनुसंधान की विधियाँ: गुणात्मक, मात्रात्मक, वर्णनात्मक और विश्लेषणात्मक विधियाँ।
- साहित्यिक अनुसंधान में समस्याएँ: शोध क्षेत्र के चयन से लेकर अंतिम निष्कर्ष तक की चुनौतियाँ।
- मध्यकालीन साहित्यिक कृतियों की पाठ्य-आलोचना और संपादन की विधियाँ।
- साहित्यिक अनुसंधान और अंतःविषय अनुसंधान: साहित्य और इतिहास, समाजशास्त्र, मनोविज्ञान, फिल्म अध्ययन और दृश्य कला जैसे क्षेत्रों के बीच संबंध।

इकाई २: साहित्यिक अनुसंधान के दृष्टिकोण

- पाठ-उन्मुख दृष्टिकोण
- लेखक-उन्मुख दृष्टिकोण
- शैली-उन्मुख दृष्टिकोण
- अवधारणा-उन्मुख दृष्टिकोण
- समाजशास्त्रीय दृष्टिकोण
- मनोविश्लेषणात्मक दृष्टिकोण
- तुलनात्मक दृष्टिकोण
- ऐतिहासिक दृष्टिकोण
- भाषाई दृष्टिकोण
- पर्यावरणीय (पारिस्थितिकी-आलोचनात्मक) दृष्टिकोण
- बहुविध और दृश्य विश्लेषण दृष्टिकोण: चित्र-पुस्तकों, ग्राफिक उपन्यासों, फिल्मों और कार्टूनों में पाठ और छवि के बीच संबंधों का विश्लेषण।

Sanskrit Language

इकाई ३: साहित्यिक अनुसंधान की संरचना और तैयारी

- **अनुसंधान प्रक्रिया के चरण:** अनुसंधान समस्याओं की पहचान, साहित्य समीक्षा, अनुसंधान प्रश्नों का निर्माण, अनुसंधान के दायरे का परिसीमन, अध्याय विभाजन और ग्रंथ सूची।
- **सूचना के स्रोत:**
  - **प्राथमिक स्रोत:** पांडुलिपियाँ, शास्त्रीय ग्रंथ, टिप्पणियाँ, साहित्यिक ग्रंथ (उपन्यास, कविता, नाटक), लेखकों की पांडुलिपियाँ, पत्र, साक्षात्कार, कार्टून स्ट्रिप्स, एनिमेटेड फ़िल्में, युवा वयस्क उपन्यास, ग्राफ़िक उपन्यास और फ़िल्में।
  - **द्वितीयक स्रोत:** आलोचनात्मक पुस्तकें, समकक्ष-समीक्षित लेख, साहित्यिक आलोचना, विद्वानों के साक्षात्कार और अकादमिक पत्रिकाएँ।

इकाई ४: अनुसंधान में सूचना एवं संचार प्रौद्योगिकी की भूमिका

- **ई-संसाधनों और डिजिटल प्लेटफ़ॉर्म का उपयोग:** JSTOR, MLA, शोधगंगा, Academia.edu, ResearchGate।
- **साहित्य समीक्षा के लिए उपकरण:** Google Scholar, Zotero, Mendeley।
- **लेखन और सहयोग के लिए डिजिटल उपकरण:** Google Docs, Overleaf।
- **संदर्भ प्रबंधन सॉफ़्टवेयर:** Zotero, Mendeley, EndNote

इकाई 5: शोध लेखन और नैतिकता

- **शोध थीसिस/शोध प्रबंध की संरचना।**
- **साहित्यिक अनुसंधान में उद्धरण शैलियाँ:** एमएलए शैली, एपीए शैली।
- **शोध निष्कर्षों का प्रकाशन और प्रस्तुतिकरण:** सम्मेलन पत्र, पत्रिका लेख और पुस्तक अध्याय।
- **नैतिक मुद्दे:**
  - साहित्यिक चोरी, कॉपीराइट और उद्धरण प्रथाएँ।
  - बौद्धिक संपदा अधिकार (आईपीआर) और उचित उपयोग को समझना।
- **नैतिक अनुसंधान में आईसीटी की भूमिका:**
  - साहित्यिक चोरी का पता लगाने वाले उपकरणों का उपयोग: टर्निटिन, ग्रामरली।
  - उद्धरण के लिए ऑनलाइन प्लेटफ़ॉर्म: ज़ोटेरो, मेंडेली, एंडनोट।
  - ओपन-एक्सेस प्रकाशन मॉडल।

Paper-1

Research Methodology

Holistic Child Development

(Annexure-4 : Syllabus of Holistic Child Development)

Holistic Child Development

1. Research: Meaning, Types, and Characteristics

Meaning and Definition of Research

- Nature, purpose, and objectives of research.
- Characteristics of research.

Types of Research

- Basic, Applied, and Action Research.
- Fundamental vs. Applied Research.
- Interdisciplinary and Multidisciplinary research.
- Qualitative vs. Quantitative research.

Characteristics of Good Research

- Objectivity, validity, reliability, and generalizability.

Philosophical Foundations

- Positivism and Post-positivism

2. Methods of Research: Qualitative and Quantitative

Experimental Method

- Variables: independent, dependent, control, intervening
- Experimental research designs
- Internal and external validity.

Descriptive Method

- Survey studies, correlational studies.
- Tools: questionnaire, interview, observation.

Historical Method

- Sources of historical data (primary, secondary).
- External and internal criticism of sources.

Qualitative Methods

- Grounded theory, ethnography, phenomenology, narrative analysis, case study.

- Data collection techniques: Interviews, focus groups, participant observation.
- Coding and thematic analysis, content analysis, triangulation

Population and Sample

- Population and sample concept
- Sampling techniques: probability and non-probability sampling

Hypotheses testing

- Hypotheses formulation, types and testing.
- Measurement scales (nominal, ordinal, interval, ratio).
- Statistical techniques: Descriptive statistics, inferential statistics.

3. Steps of Research

- Identification and formulation of the research problem.
- Review of related literature.
- Formulation of objectives, research questions, and hypotheses.
- Research design.
- Sampling and selection of tools/instruments.
- Data collection procedures.
- Data analysis and interpretation.
- Report writing and presentation of findings.

4. Thesis and Article Writing: Format and Styles of Referencing

Thesis Writing

- Structure: Title page, Abstract, Introduction, Review of Literature, Methodology, Results, Discussion, Conclusion, References, Appendices.

- Formatting guidelines (margins, spacing, pagination, headings).

Referencing Styles

- APA
- In-text citation and reference list.

5. Application of ICT in Research

- Use of e-resources and online databases (Scopus, Web of Science, JSTOR, etc.).
- Reference management tools: Mendeley, Zotero, EndNote.
- Use of statistical software: Excel, SPSS, NVivo.
- Plagiarism detection tools (Turnitin, Drilbit).
- Use of ICT for Data collection:- Google forms, Survey Monkey etc.
- ICT in collaborative research: Google Scholar, ResearchGate, Academia.edu.

6. Research Ethics

- Ethical principles in research: honesty, integrity, objectivity, confidentiality.
- Plagiarism and issues of academic misconduct.
- Ethical treatment of human participants.
- Informed consent, privacy, and data protection.
- Ethical publication practices: authorship, peer review, conflict of interest.



Children's Research University,
Near Jalaram Temple, Opp. Public Garden,
Sector 29, Gandhinagar, Gujarat- 382030
+91 - 79 - 23244576/23244569
+91 7575962929
infophd@cugujarat.ac.in