



पी. एच डी. प्रवेश परीक्षा 2017-18  
पाठ्यक्रम – हिन्दी

- ◆ हिन्दी भाषा का उद्भव और विकास। हिन्दी-प्रदेश की प्रमुख बोलियों का सामान्य परिचय।
- ◆ बोली और भाषा। हिन्दी भाषा प्रयोग के विविध रूप – मानक भाषा, सम्पर्क भाषा, राजभाषा और राष्ट्र भाषा।
- ◆ हिन्दी साहित्येतिहास लेखन की परम्परा। प्रमुख आदिकालीन साहित्य – रासो काव्य, जैन काव्य, सिद्ध साहित्य, नाथ साहित्य (पंथ)।
- ◆ भक्ति आन्दोलन के कारण एवं प्रवृत्तियाँ। भक्ति काल के प्रमुख कवि एवं उनकी प्रसिद्ध कृतियाँ।
- ◆ प्रमुख रीतिकालीन कवि एवं उनकी प्रसिद्ध कृतियाँ।
- ◆ आधुनिक काल की लम्बी कविताएँ-अंधेरे में, राम की शक्ति-पूजा, असाध्यवीणा।
- ◆ प्रमुख उपन्यास – मैला आँचल – फणीश्वर नाथ रेणु  
शेखरःएक जीवनी – अङ्गेय  
गोदान – प्रेमचन्द
- ◆ काव्य के लक्षण एवं प्रयोजन, भारतीय काव्य शास्त्र के प्रमुख सिद्धांत एवं सम्प्रदाय।
- ◆ पाश्चात्य काव्य शास्त्र – प्लेटो और अरस्तू का काव्य-सिद्धांत।
- ◆ छत्तीसगढ़ भाषा का क्षेत्र एवं इसके प्रमुख साहित्यकार।
- ◆ लोक साहित्य के संग्रह की समस्याएँ। लोक साहित्य के विविध रूप। छत्तीसगढ़ी लोक गाथा का परिचय।
- ◆ हिन्दी राजभाषा का संवैधानिक प्रावधान। कार्यालयीन टिप्पण और संक्षेपण लेखन।
- ◆ पत्राचार के विभिन्न रूप। हिन्दी पत्रकारिता का विकास।
- ◆ जन संचार के विविध माध्यम।
- ◆ इन्टरनेट और हिन्दी
- ◆ अनुवाद की प्रक्रिया एवं प्रविधि।
- ◆ अनुसंधान अभिक्षमता –  
अनुसंधान :– अर्थ, विशेषताएँ और प्रकार  
अनुसंधान के सोपान, विधियाँ, अनुसंधान में नैतिकता, अनुसंधान एवं परिसंवाद।



Ph.d. Entrance Examination 2017-18

Syllabus- English

1. Chaucer to Shakespeare
2. Jacobian to restoration Period
3. Augustan Age: 18<sup>th</sup> Century Literature
4. Romantic Period
5. Victorian Period
6. Modern English Period
7. Contemporary English Period
8. American Literature
9. Literary Theory and Criticism up to T.S. Eliot
10. Contemporary English Theory
11. Indian Writing in English
12. Indian English Literature in Translation
13. Linguistics and Stylistics
14. Literary Terms and Prosody
15. Colonial and Post Colonial Studies
16. Research Methodology



पीएच.डी. प्रवेश परीक्षा वर्ष 2017-18

पाठ्यक्रम – इतिहास

- शिक्षण प्रकृति उद्देश्य, विशेषताएँ एवं आवश्यकताएँ
- शोध का अभिप्राय एवं प्रकार
- शोध शिक्षण का प्राचीन आधार
- प्राचीन भारत में शिक्षण संरथान
- इन्टरनेट एवं ई-मेल कार्य एवं जानकारियाँ
- औद्योगिक क्रांति
- जर्मनी एवं इटली का एकीकरण
- मेझी-पुनर्स्थापना
- प्रथम विश्व युद्ध एवं वर्साय की संधि
- 1917 की रूस क्रांति
- राष्ट्र संघ
- प्राचीन छत्तीसगढ़—नामकरण
- मराठा कालीन छत्तीसगढ़
- छत्तीसगढ़— ब्रिटिश नियंत्रण
- प्रथम अफीम युद्ध
- ताइपिंग विद्रोह
- चीन—जापान युद्ध
- बक्सर विद्रोह
- रूस—जापान युद्ध
- 1911 की चीनी क्रांति
- शीत युद्ध
- संयुक्त राष्ट्र संघ
- जर्मनी में हिटलर
- इटली में मुसोलिनी
- सार्क
- छत्तीसगढ़ के रियासतों के प्रति ब्रिटिश नीति
- वीर नारायण सिंह
- छत्तीसगढ़ में राष्ट्रीय आन्दोलन
- छत्तीसगढ़ की लोक संस्कृति
- 1911 की इंग्लैण्ड में सुधार अधिनियम
- प्रथम विश्व युद्ध में इंग्लैण्ड की भूमिका
- 1857 का विद्रोह
- राष्ट्रीय आन्दोलन में उग्रवाद
- 1919 का अधिनियम
- भारत छोड़ो आन्दोलन
- मुगलकालीन इतिहास को स्रोत
- मराठा साम्राज्य—शिवाजी
- गुट निरपेक्षता



पीएच.डी. प्रवेश परीक्षा 2017-18  
पाठ्यक्रम – राजनीतिशास्त्र

1. राजनीतिक सिद्धांत एवं विचारक –

- (a) प्राचीन भारतीय राजनीतिक विचारक – कौटिल्य, मनु, भीष्म, शुक्र, कामन्दक।
- (b) आधुनिक भारतीय राजनीतिक विचारक – गाँधी, अरविन्द घोष, विवेकानन्द, जयप्रकाश नारायण, अंबेडकर, सावरकर, दीनदयाल उपाध्याय।
- (c) पाश्चात्य राजनीतिक विचारक – प्लेटो से मार्क्स तक एवं समकालीन उदारवादी नवमार्क्सवादी, अस्तित्ववादी, नारीवादी विचारक।
- (d) स्वतन्त्रता, समानता, न्याय, लोकतन्त्र, अधिकार।
- (e) व्यवहारवाद, उत्तर-व्यवहारवाद, विचारधारा, विचारधारा का अन्त और सम्यताओं का संघर्ष।

2. तुलनात्मक राजनीति – उद्भव, प्रकृति एवं विषय क्षेत्र।

- ◆ तुलनात्मक राजनीति अध्ययन के विभिन्न उपागम।
- ◆ संविधानवाद, शासन के विभिन्न प्रकार एवं शासन के विभिन्न अंग।
- ◆ दलीय प्रणाली, दबाव समूह एवं चुनावी व्यवस्था, राजनीतिक विकास, राजनीतिक आधुनिकीकरण, राजनीतिक संस्कृति, राजनीतिक समाजीकरण, राजनीतिक संचार, राजनीतिक अभिजन।
- ◆ शक्ति, सत्ता और वैधता, क्रान्ति, निर्भरता सिद्धांत, विकास एवं अल्पविकास।

3. भारतीय शासन एवं राजनीति –

- (i) राष्ट्रीय आंदोलन, संवैधानिक विकास और संविधान की रचना।
- (ii) भारतीय संविधान के दार्शनिक आधार।
- (iii) प्रस्तावना, मूल अधिकार और कर्तव्य, नीति-निर्देशक तत्व।
- (iv) राष्ट्रपति, प्रधानमंत्री, मंत्रिपरिषद, राज्यपाल और मुख्यमंत्री।
- (v) संसद-पंचायती राज, संघवाद, केन्द्र-राज्य संबंध।
- (vi) न्यायपालिका-उच्चतम न्यायालय, उच्च न्यायालय, न्यायिक सक्रियता, न्यायिक पुनर्विलोकन, जनहितवाद।

4. लोकप्रशासन का अनुशासन के रूप में विकास एवं अध्ययन के विभिन्न उपागम के संगठन के विभिन्न सिद्धांत –

कार्मिक प्रशासन  
नौकरशाही  
वित्तीय प्रशासन  
शिकायत निवारण संस्था – लोकपाल, लोकाआयुक्त, ओम्बुडसमैन।

5. अंतर्राष्ट्रीय संबंध –

- (i) अंतर्राष्ट्रीय राजनीति के विभिन्न सिद्धांत व उपागम।
- (ii) राष्ट्रीय शक्ति एवं हित, विचारधारा।
- (iii) शीत युद्ध, गुटनिरपेक्षता, वैश्वीकरण।
- (iv) अंतर्राष्ट्रीय कानून, मानवाधिकार, निःशस्त्रीकरण, शस्त्र नियंत्रण।
- (v) नव अंतर्राष्ट्रीय आर्थिक व्यवस्था, विश्व व्यापार संगठन।
- (vi) संयुक्त राष्ट्र संघ, सार्क, आसियान, ब्रिक्स।
- (vii) विश्व के प्रमुख देशों की विदेश नीति।
- (viii) भारत की विदेश नीति की विशेषताएँ एवं पड़ोसियों से संबंध।

6. शोध प्रविधि –

- (i) शोध की अवधारणा, प्रक्रिया, प्रकार एवं क्षेत्र।
- (ii) शोध के विभिन्न चरण।
- (iii) शोध के साधन – प्रतिदर्श चयन, प्रश्नावली, अनुसूची, व्यक्तिगत अध्ययन, पर्यवेक्षण, रेटिंग स्केल, चेक लिस्ट।
- (iv) शोध की विधयाँ – ऐतिहासिक, वैज्ञानिक, सर्वे, विकासवादी।
- (v) आधारभूत कम्प्यूटर ज्ञान।
- (vi) नव सामाजिक आंदोलन, पर्यावरणीय आंदोलन, नारीवादी मुददे एवं समकालीन अन्य राजनीतिक मुददे।



**CRET SYLLABUS – 2017**  
**SUBJECT – POLITICAL SCIENCE**

**1. Political theory and thought –**

- (a) Ancient Indian Political Thought – Kautilya, Menon, Bhishma, Shukra, Kamanadak.
- (b) Modern Indian Political Thought – Gandhi, Arbindo, Vivekanand, Jaiprakash, Ambedkar, Sawarkar, Deendayal.
- (c) European Thought – Plato to Marx contemporary liberal, new Marxist, Feminist thinker.
- (d) Liberty, Equality, Justice, Democracy, Rights.

**2. Comparative Politics –**

- (i) Evolution, Nature and scope.
- (ii) Approaches to the study of comparative Politics.
- (iii) Constitutionalism, form of government and organ of Government.
- (iv) Party System, Pressure groups, Election system.
- (v) Political Development, Political modernization, Political culture, Political Elitist.
- (vi) Power, Authority and Legitimacy, Revolution, Dependency, Development and Under development.

**3. Indian Government and Politics –**

- (i) National Movement, Constitutional Development and making of Indian Constitutions.
- (ii) Philosophical Bases of Indian Constitutions.
- (iii) Preamble, Fundamental Rights and Duties, Directive principles.
- (iv) President, Prime Minister, council of minister, Governor, Chief Minister.
- (v) Parliament, Panchayatiraj, Federalism, Center-state relations.
- (vi) Judiciary – Supreme Court, High court, Judicial review.

**4. Development of Public Administration as a Discipline, Approaches**

- ♦ Theories of Organization.
- ♦ Personnel Administrations.
- ♦ Bureaucracy.
- ♦ Financial Administration.
- ♦ Grievance Redressal Institutions, Lokpal, Lokayukta, Ombudsman.

## 5. International Relations –

- (i) Theories and approaches to the study of International Relations.
- (ii) National Power and Interest, Ideology.
- (iii) Cold War, Nam, Globalization.
- (iv) International Law, Human Rights, Disarmament, Arms Control.
- (v) NIEO, WTO, UNO, SAARC, ASEAN, BRICS.
- (vi) Foreign Policy of Major Power.
- (vii) Indian Foreign Policy and relation with Neighbours.

## 6. Research Methodology –

- (i) Concept of Research, Process, Types and scope.
- (ii) Steps of Research
- (iii) Tools of Research – Sampling, Questionnaire, Schedule, Case Study, Observation, Rating Scale, checklist.
- (iv) Research Techniques – Historical, Scientific, Survey, developmental.
- (v) Basic computer Knowledge.
- (vi) New social moments, Environmental Feminist and other Political Issues.



# सरगुजा विश्वविद्यालय, अम्बिकापुर (छ.ग.)

(छ.ग. विश्वविद्यालय (संशोधन) अधिनियम, 18/2008 द्वारा स्थापित)

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## अर्थशास्त्र विषय की अध्ययन बोर्ड की बैठक दिनांक 06.09.2017 का कार्यवाही विवरण

समाज विज्ञान संकायान्तर्गत अर्थशास्त्र विषय की अध्ययन बोर्ड की बैठक विश्वविद्यालय के प्रशासनिक भवन के सभाकक्ष में बुधवार दिनांक 06.09.2017 समय 12:00 मध्यान्ह आयोजित हुई।

आज की बैठक में निर्णय लिया गया की—

- पीएच.डी. प्रवेश परीक्षा हेतु पाठ्यक्रम तैयार किया गया जो की आगे संलग्न है।
- स्नातकोत्तर पाठ्यक्रम 2018-19 के निर्धारण हेतु दिनांक 23.09.2017 की तिथि निश्चित की गयी है।
- स्नातक स्तर पर अर्थशास्त्र विषय को विज्ञान संकाय में भी शामिल करने हेतु प्रस्ताव रखा गया। कृपया इस पर भी विचार किया जाये। तदनुसार आगे बैठक में इसका पाठ्यक्रम तैयार किया जायेगा।

## पीएच.डी. प्रवेश परीक्षा हेतु पाठ्यक्रम 2017-18

### अर्थशास्त्र

- वर्तमान पाठ्यक्रम ( स्नातकोत्तर P.G. के आधार पर )
- नेट, सेट पाठ्यक्रमानुसार
- पब्लिक सर्विस कमीशन (PSC) के पाठ्यक्रमानुसार यूनिट नहीं रहेगा।

$30 \times 2 = 60$  ( व्यापक वस्तुनिष्ठ पाठ्यक्रमानुसार )

$8 \times 5 = 40$  ( छोटे प्रश्न रिसर्च मैथोलॉजी एवं अन्य विषय से सम्बंधित )

# SARGUJA UNIVERSITY, AMBIKAPUR

## SYLLABUS

### DOCTOR OF PHILOSOPHY IN ECONOMICS

#### ENTRANCE EXAMINATION – 2017

- 1- Consumer Behaviour
- 2- Production and Costs
- 3- Markets- perfect Competition, Monopoly, Monopolistic Competition , oligopoly Theory of Distribution/ Theory of Factor Markets.
- 4- National Income Accounting Methods Classical Model, Keynesian Model, IS-LM Model, Fiscal and Monetary policies. Solow Growth Model.
- 5- Inflation, Index Numbers.
- 6- Exchange Rate Systems.
- 7- Balance of Payments Account.
- 8- Keynesian Multipliers in an Open Economy Structural Reforms.
- 9- Indian Money Market and RBI's Monetary Policy.
- 10- Measures of Central Tendency, Skewness dispersion, Correlation regression, Elementary Probability theory.
- 11- Testing of hypothesis – Z. t, F test, Index Numbers Times Series. *Differentiation*
- 12- Calculus – Functions, limits, Continuity, Differential Calculus Partial total *Differentiation* *W.M*
- 13- Economic reforms in India - India of the eve of economic reforms - Objectives, Nature & Structures of economic reforms – Impact of economic reforms – India & WTO – India & GATT.
- 14- Agriculture and economic Development – Farming System, Agricultural Marketing, Agricultural Price policy – Agricultural Growth and Productivity.
- 15- Meaning and Characteristics of Research, Steps in research Process, Types of research. Areas of research in Concern Discipline.
- 16- Sources of the Selection of the Problem.
- 17- Meaning and Types of hypotheses.  
Drafting a research proposal
- 18- Questionnaire Interview
- 19- Meaning of Population and Sample. Importance and Characteristics of Sample Sampling techniques.
- 20- Level of Measurements of data. Steps in treatment of data editing, Coding, Classification. Tabulation, analysis and interpretation of results.



# સરગુજા વિશ્વવિદ્યાલય, અમ્બિકાપુર (છ.ગ.)

18

સમાજશાસ્ત્ર વિષય કી અધ્યયન બોર્ડ કી બૈઠક દિનાંક 06.09.2017 કા કાર્યવાહી  
વિવરણ

સમાજ વિજ્ઞાન સંકાયાન્તર્ગત સમાજશાસ્ત્ર વિષય કી અધ્યયન બોર્ડ કી બૈઠક વિશ્વવિદ્યાલય કે પ્રશાસનિક ભવન કે સમાકક્ષ મેં બુધવાર દિનાંક 06.09.2017 સમય 12:00 મધ્યાન્હ આયોજિત હુઈ।

પીએચ.ડી. પ્રવેશ પરીક્ષા ડેટું પાઠ્યક્રમ 2017-18

## સમાજશાસ્ત્ર

પીએચ.ડી. પ્રવેશ પરીક્ષા પાઠ્યક્રમ નિર્ધારિત કિયા જાતા હૈ।

1. સમાજશાસ્ત્ર – પ્રકૃતિ, ક્ષેત્ર, ઉદ્દેશ્ય, ઉપયોગિતા ઉત્પત્તિ વિકાસ, અન્ય સામાજિક વિજ્ઞાન સે સંબંધ, સામાજિક સંરચના, સમૂહ, સામાજીકરણ
2. કાર્લમાર્કસ – વર્ગ સંઘર્ષ, અતિરિક્ત મૂલ્ય, ઐતિહાસિક ભૌતિકવાદ।
3. ઇમાઈલ દુર્ખિમ – પ્રત્યક્ષવાદ, આત્મહત્યા, સામાજિક એકતા।
4. મૈક્સવેબર – સત્તા એવં નૌકરશાહી વી અવધારણા।
5. પૈરેટો – તાર્કિક એવં અતાર્કિક ક્રિયા, અભિજાત વર્ગ કા પરિભ્રમણ।
6. મહાત્મા ગાંધી – સત્યાગ્રહ, અંહિસા, સંરક્ષતા કા સિદ્ધાન્ત।
7. રવિન્દ્ર નાથ મુખર્જી – મૂલ્ય કા સિદ્ધાન્ત।
8. માનવશાસ્ત્ર – માનવશાસ્ત્ર કી ઉત્પત્તિ વિકાસ, સામાજિક ક્રિયા, ભારત કી પારમ્પરિક સંસ્કૃતિ મેં પ્રભાવ, આધુનિકીકરણ, ઔદ્યોગિકીકરણ, સંસ્કૃતિકરણ, લૌકીકીકરણ, નગરીકરણ એવં સંચાર તકનીક કા પ્રભાવ, પારમ્પરિક એવં આધુનિક શિક્ષા, સરકારી એવં ગૈર સરકારી સંગઠન (NGO)

9. भारत में सामाजिक परिवर्तन — प्रकृति, कारक-वैश्वीकरण, सारकृतिकरण, मनोवैज्ञानिक, धर्म निरपेक्षीकरण, पूजीवाद, गांधीवाद, अल्प संख्यक सामाजिक गतिशीलता।
10. नगरीकरण — कारक, परिवर्तन एवं प्रभाव (समस्याएँ) ग्रामीण समाजशास्त्र, ग्रामीण नगरीय सम्बंध, जनसंख्या, प्रवास, कृषक समाज, विस्थापन, भूमिपृथक्करण, हरित क्रांति, कृषक आंदोलन, परिवार, विवाह, जाति, वर्ग, धर्म, महिला आन्दोलन, घरेलु हिंसा, शिक्षित बेरोजगारी, युवा असन्तोष, पंचायती व्यवस्था, क्षेत्रवाद, साम्प्रदायिकता, समाज एवं पर्यावरण प्रदूषण, स्वारक्ष्य की समस्याएँ।
11. सामाजिक विघटन — कारण एवं परिणाम, अपराध की अवधारणा, कानूनी एवं समाजिक व्यवस्था प्रकार, कारण, परिणाम, महिला आन्दोलन, बाल अपराध, रक्त पोस अपराध, भ्रष्टाचार, दण्ड के सिद्धान्त, बन्दीगृह, पुलिस प्रशासन, मादक द्रव्य व्यसन, श्रम अधिनियम, प्रवजन, अपराध एवं अपराधियों के बदलते परिदृष्टि।
12. जनजाति अध्ययन — उद्देश्य एवं महत्ता, जाति एवं प्रजाति, वर्गीकरण, जनसंख्या, छत्तीसगढ़ की प्रमुख जनजातियाँ — गोड़, बैगा, कोरवा, विरहोर, उराँव, कंवर, भील।
13. जनजातीय प्रमुख समस्याएँ — मानव तस्करी, जनजीय के लिए सरकारी एवं गैर सरकारी कल्याण योजनाएँ। इसाई, मिसनरियों का योगदान, जनजातीय आन्दोलन, महिला शासकितकरण एवं भारतीय समाज का ऐतिहासिक परिप्रेक्ष्य, वर्ण, धर्म, कर्म, आश्रम एवं पुरुषार्थ।
14. दलितवादी परिप्रेक्ष्य — अम्बेडकर के विचार, समाजिक अनुसंधान एवं सर्वेक्षण शोध की प्रकृति, उद्देश्य, प्रमुख चरण एवं महत्व, उपकल्पना, अवलोकन, प्रश्नावली, साक्षात्कार, गुणात्मक प्रविधिया, व्यक्तिक अध्ययन पद्धति, अन्तर्वरस्तु विश्लेषण सामाजिक शोध में सांख्यकी की — भूमिका महत्व सीमाएँ।



Ph.D. Entrance Examination 2017-18

Syllabus- Anthropology

- Introduction of Anthropology- Meaning & Definition of Anthropology and its relationship with Social Sciences, Life Sciences, Earth Sciences, Medical Sciences & Environmental Science, History, Scope & branches of Anthropology, New Anthropology, Applied & Action Anthropology.
- Social Cultural Anthropology - Meaning, Scope & sub branches, Basic concepts- Culture, Civilization, Society, Community, Social Institutions & Groups, Change and Continuity.  
Social Institution-Marriage & Family kinship system and its importance in Social Structure, Clan, Moeity.  
Economic Organization, Primitive Law & Political Organization.  
Religion, Magic & witchcraft Totem & Taboo.
- Anthropological Thought & Theory- Pioneers in Anthropology Evolutionism, Diffusionism, Historical Practicularism, Functionalism, Structural-Functionalism, Neo-evolutionism, Structuralism, Psychological Anthropology, Culture & Personality Studies, Field Work tradition in Anthropology.
- Indian Society & Culture- Unity & Diversity in Indian Society & Culture, Caste System, Contribution to Indian studies- S.C. Roy, N.K. Bose, D.N. Majumdar, V. Elwin, R. Redfield, Milton Singer, Mckim, Marriott, L.P. Vidyarthi, Haimendorf, Irawati Karve, Dumont, M.N. Srinivas, S.C. Dubey, Changes in Rural & Urban India.
- Tribal India- Concept of Tribe in Indian Context, ST Deference between ST & SC, Classification & Distribution of Tribes, Primitive Tribal Groups, Social/Economic/ Political organization, Tribal Religion, Youth Dormitory, Forest & Tribals.
- Tribal Welfare & Development - Tribal Development Concept, History of Tribal Development Administration in India, Constitutional Provisions Planning & Development Policies, Tribal Development Programmes, Tribal Education, Major Tribal Problems, Tribal Unrest & revolts, Tribal Displacement & Rehabilitation.

- Physical-Biological Anthropology- Meaning, Definition, History, & Scope. Relationship with Biological & Medical Sciences. History and Development of Physical Anthropology in India. New Physical Anthropology, Anthropometry, Somatoscopy, Osteology. Theories of Organic Evolution. Man's place in Animal Kingdom comparative Anatomy of Man & Apes Human Evolution-Fossils. Biological Concept of Race, Race Formation, Criteria of Race, Racial elements in India Major races of the world, Human Variation-Morphological, serological & Genetic.
- Human Genetics- Definition, History & Scope, branches of Human Genetics. Concepts of Genes, Genetic Code DNA, RNA, Human Chromosome, Chromosomal aberration. Mode of Inheritance- Autosomal, Sex linked Dominant & Recessive inheritance. The Cell Structure, Cell Division- Mitosis & Meiosis, Mendelism. Method of Studying Human heredity, Inheritance of ABO blood Group, MN & Rh blood Groups, Population Genetics. Concept of Gene frequencies, Polygenic inheritance, Genetic Counseling & Eugenics.
- Human Growth & Development, Pre-natal and Post-natal growth stages. Basic Method of Growth studies. Factor affecting Growth: Heredity, Environment & hormonal, Concept of Age-chronological, skeletal, dental & Morphological.
- Nutrition: Basic terms & Concept Concept of Balanced Diet, Nutritional deficiency diseases Growth Programmes- ANP, ICDS, SNP, Mid day meal programmes etc.
- Archaeological Anthropology- Definition, Subject Matter, Branches, Aims & Applications. Old world & New world Archaeological traditions. Archaeology as Anthropology. Geological Time Scale Glacial- Interglacial, Pluvial-Inter-pluvial Climatic Cycles. Dating techniques- Relative & Absolute. Tool Typology & Technology Lower/Middle/Upper Palaeolithic of Europe. Home & Cave Art of upper Palaeolithic. Mesolithic & Neolithic Culture of Europe

✓ Indian Archaeology  
Lower Palaeolithic

Middle Palaeolithic and upper Palaeolithic culture of India. Mesolithic culture of India. Chalcolithic culture of India. Indus valley civilization. Megalithic Culture of India

### Part-B

#### Research Methodology & Computer Application

Social Research; Meaning, Definition & Importance, Social survey.

Research Approach: Historical/Comparative Functional, Types of Research Tools & Techniques of Data Collection Schedule, Questionnaire, Interview, Observation

Nonparticipant & Participant/Geneology case study, Group discussion, Data analysis & Graphical presentation Report writing.

Bio-statistics- Mean, Mode, Median,  $X^2$  Test, Standard Deviation, T-Test

Basics of Computer  
Introduction to Computer, Types of Computer, Computer Hardware & Software, DOS, Windows: Features, Desktop, Taskbar, Start Menu, My Computer, Recycle bin.

MS Office: MS Word, MS Excel, PowerPoint, Outlook Express, SPSS (Evolution Version) Internet.

#### Scheme of Exam (Ph.D. Entrance)

Types of Questions	No. of Questions to be set	No. of Questions to be attempt	Marks
Short Type (Objective Type)	40	30	$30 \times 2 = 60$
Explanatory	12	08	$8 \times 5 = 40$
Total			100

Pass Marks - 50  
Duration - 3 Hr.



# सरगुजा विश्वविद्यालय, अम्बिकापुर (छ.ग.)

(छ.ग. विश्वविद्यालय (सशोधन) अधिनियम, 18/2008 द्वारा स्थापित)  
E-mail:- [registrarsua@yahoo.co.in](mailto:registrarsua@yahoo.co.in) Phone:- 07774-222789, Fax:- 07774-222791

## भूगोल विषय की अध्ययन बोर्ड की बैठक दिनांक 06.09.2017 का कार्यवाही विवरण

समाज विज्ञान संकायान्तर्गत भूगोल विषय की अध्ययन बोर्ड की बैठक विश्वविद्यालय के प्रशासनिक भवन के समाकक्ष में बुधवार दिनांक 06.09.2017 समय 12:00 मध्याह्न आयोजित हुई।

### पीएच.डी. प्रवेश परीक्षा हेतु पाठ्यक्रम 2017-18

#### भूगोल

पीएच.डी. प्रवेश परीक्षा पाठ्यक्रम निम्नानुसार निर्धारित किया जाता है।

- शोध प्रविधि
- भू आकृति विज्ञान – परिभाषा, विषय क्षेत्र, महाद्विपीय विस्थापन सिद्धान्त, अपरदन एवं अपक्षय, अपरदन चक्र, भू-आकृतिक रथलरूप, भू-कम्प, ज्वालामुखी, पृथ्वी की आन्तरिक संरचना, पर्वत निर्माणकारी प्रक्रिया, व्यवहारिक भू-आकृति।
- जलवायु विज्ञान – परिभाषा, विषय क्षेत्र, तत्त्व, वायु राशियाँ, वाताग्र, चक्रवात, जलवायु प्रदेश।
- भारत का भूगोल – प्राकृतिक विभाग, अपवाह तंत्र, मृदा, वनस्पति, फसल प्रतिरूप कृषि जलवायु प्रदेश, हरित क्रान्ति, संसाधन एवं खनिज पदार्थ, उद्योग-धन्धे।
- पर्यावरण – परिभाषा, संकल्पना, प्रदूषण, पारितन्त्र।
- भौगोलिक ज्ञान का काल क्रमिक विकास – ग्रीक, रोमन, अरब एवं भारत।
- समुद्र विज्ञान – परिभाषा, विषय क्षेत्र, जलधाराएँ, सागरीय तापमान, लवणता, रथलरूप।
- जैव भूगोल – परिभाषा, विषय क्षेत्र, महत्व, वायोम, जैव भौगोलिक प्रदेश।
- ग्रामीण अधिवास – परिभाषा, विषय क्षेत्र, ग्रामीण अधिवास के विकास के कारक।

- **औषधि भूगोल**— परिभाषा, विषय क्षेत्र, मानव स्वारथ्य को प्रभावित करने वाले कारक भौतिक, सामाजिक, आर्थिक एवं पर्यावरणीय प्रमुख बीमारियाँ एवं उपचार के उपाय।
- **आर्थिक भूगोल**— परिभाषा, विषय क्षेत्र, कृषि प्रदेश, फसल चक्र, शर्य संयोजन, उद्योग-धन्धों के रथानीयकरण के सिद्धान्त,
- **कृषि भूगोल**— परिभाषा एवं विषय क्षेत्र।
- **विपणन भूगोल**— परिभाषा एवं विषय क्षेत्र।
- **प्रादेशिक नियोजन**— परिभाषा एवं विषय क्षेत्र, आर्थिक विकास के मॉडल, प्रादेशिक विकास के उपागम।
- **जनसंख्या भूगोल**— परिभाषा एवं विषय क्षेत्र, आकड़ा स्त्रोत, घनत्व, वृद्धि वितरण।
- **नगरीय भूगोल**— परिभाषा एवं विषय क्षेत्र।
- **राजनीतिक भूगोल**— परिभाषा एवं विषय क्षेत्र, राज्य एवं देश की संकल्पना हृदय स्थल सिद्धान्त।
- **प्रक्षेप, सांख्यिकीय विधियाँ, G.I.S. एवं रिमोट सेंसिंग**।

# SARGUJA UNIVERSITY, AMBIKAPUR

## SYLLABUS

### DOCTOR OF PHILOSOPHY IN GEOGRAPHY

#### ENTRANCE EXAMINATION – 2017

- **Nature , Scope and Content of Geomorphology**
- **Continental Drift theory** – Erosion, Weathering, Cycle of Erosion, Geomorphic Landform, Earthquakes and Volcanoes, Constitution of the earth's interior, Geosynclines theory Applied Geomorphology.
- **Climatology** – Nature, Scope, Components Air masses, Fronts, Cyclones, Climatic Region.
- **Geography of India** – Physical Division of India Drainage, Soil, Vegetation, Crop Patten's Agro- Climatic Region, Green Revolution- Resource, Mineral resources 2 Industries.
- **Environment** - Meaning , Definition, Concepts Environmental Pollution, Ecosystem.
- **Geographical thought**- The Growth of Geographical Knowledge from earliest times up to the 15<sup>th</sup> Century – Contribution of Greek, Roman, Arab and resent India.
- **Oceanography** - Nature & Scope of Oceanography Surface Current, ocean Temperature Ocean Salinity, Land from.
- **Bio- Geography** - Nature , Scope, Importance , Biomes, Regions.
- **Rural Settlement Geography** - Nature Scope Factors of Development of Rural Settlement.
- **Medical Geography**- Nature Scope Geographical Factors affecting human health and Diseases – Physical Social, Economic Environmental Factor, Diseases.
- **Economic Geography** - Nature & Scope Agricultural Region, Crop Cycle, Crop Combination, Industrial Location theory.
- **Agricultural Geography** - Nature & Scope
- **Marketing Geography** - Nature & Scope.
- **Regional Planning** - Nature & Scope, Modale of Economic Development Approaches of Regional Development.
- **Population Geography** - Nature & Scope, Data Collection Density of Population, Distribution of Population.
- **Urban Geography** - Nature & Scope.
- **Political Geography** - Nature & Scope, Concept of nation to State, Heart land theory.
- **Projection** – Starticals Methods, G.I.S. and Remote Sensing.

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# SARGUJA UNIVERSITY

## PH.D. ENTRANCE EXAM SYLLABUS

### SUBJECT - PSYCHOLOGY

#### 1. Perceptual Processes

Approaches to the Study of Perception : Gestalt and physiological approaches  
Perceptual Organization : Gestalt, Figure and Ground, Laws of Organization  
Perceptual Constancy : Size, Shape and Brightness, Illusion; Perception of Depth Movements.  
Role of motivation and learning in perception

#### 2. Learning Process

Classical conditioning : Procedure, Phenomena and related issues  
Instrumental learning : Phenomena, Paradigms and theoretical issues  
Reinforcement : Basic variables and schedules  
Verbal learning : Methods and materials, organizational processes

#### 3. Memory and forgetting

Memory processes : Encoding, Storage, Retrieval  
Stages of memory : Sensory memory, Short-term Memory (STM) and Long-term Memory (LTM)  
Episodic and Semantic memory  
Theories of Forgetting : Interference, decay, retrieval

#### 4. Thinking and Problem Solving

Theories of thought processes : Associationism, Gestalt, Information processing  
Concept formation : Rules and strategies  
Reasoning : Deductive and inductive  
Problem-solving : Type and strategies  
Role of concepts in thinking

#### 5. Motivation and Emotion

Basic motivational concepts : Instincts, needs, drives, incentives, motivational cycle  
Approaches to the study of motivation : Psychoanalytical, ethological, S-R Cognitive, humanistic  
Biological Motives : Hunger, thirst, sleep and sex  
Social Motives : Achievement, affiliation, approval  
Exploratory behaviour and curiosity  
Physiological correlates of emotions  
Theories of emotions : James-Lange, Cannon-Bard, Schachter and Singer  
Conflicts : Sources and types

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## 6. Human Abilities

Intelligence : Biological, Social, Eco-cultural determinants  
 Theories of intelligence : Spearman, Thurston, Guilford  
 Individual and group differences : Extent and causes  
 Measurement of human abilities

## 7. Personality

Determinants of personality : Biological and socio-cultural  
 Approaches to the study of personality : Psychoanalytic, neo-freudian, social learning, trait and type, cognitive  
 Personality assessment : Psychometric and projective tests  
 Self-concept : Origin and development

## 8. Research Methodology

Research problems, hypothesis, variables and their operationalization  
 Types of psychological research  
 Methods of psychological research : Experimental, Quasi-experimental, case studies, field studies and cross-cultural studies.  
 Methods of data collection : Observation, interview, questionnaire, tests and scales.  
 Non-parametric tests

## 8. Measurement and testing

Test construction : Item writing, item analysis  
 Test standardization : Reliability, validity and norms  
 Types of tests : Intelligence, aptitude, personality - characteristics and important examples  
 Attitude scales and interest inventories  
 Educational measurement and evaluation

## 10.09 Biological Basis of Behaviour

Receptors, effectors and adjuster mechanisms  
 Neural impulse : Origin, conduction and measurement  
 Sensory system : Vision and Audition  
 Human nervous system : Structure and functions

## 10. Research Methodology

### CONCEPT OF RESEARCH :

Meaning and characteristics of research, Steps in research process, Types of Research - i) Basic, applied and action research ii) Quantitative and qualitative research, Areas of research in concern discipline

11. **SELECTION OF PROBLEM FOR RESEARCH** : - Sources of the selection of the problem, Criteria of the selection of the problem, Drafting a research proposal, Meaning and types of variables, Meaning and types of hypotheses.

12. **TOOLS OF RESEARCH** - Meaning and general information about construction procedure of (i) Questionnaire, (ii) Interview, (iii) Psychological test, (iv) observation (v) Rating scale (vi) Attitude scale and (vii) check list, Advantages and disadvantages of above tools

13. **SAMPLING** - Meaning of population and sample, Importance and characteristics of sample, Sampling techniques - i) Probability sampling : random sampling, stratified random sampling, systematic sampling, cluster sampling ii) Non-probability sampling: incidental sampling, purposive sampling, Quota sampling

14. **METHODS OF RESEARCH** - Meaning and conducting procedure of following methods of research : Historical method, Survey method, Case study, Causal comparative method, Developmental methods, Experimental methods

15. **TREATMENT OF DATA** - Level of measurements of data, Steps in treatment of data: editing, coding, classification, tabulation, analysis and interpretation of results

16. **WRITING RESEARCH REPORT** -- Sections of report : Preliminary section, Content section : various chapters, Supplementary section : appendices, references, abstract, Format and style

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## Syllabus for Pre Ph.D. Entrance Examination 2017

### Subject: Physics

#### Section-A

#### Research methodology

- \* Meaning, nature, significance and types of research.
- \* End to end process of research, research proposal, synopsis, hypothesis, data collection, literature survey, sampling, interviewing, questionnaire, data processing, interpretation, report writing, bibliography.
- \* Thesis/Dissertation writing.
- \* Role and use of computers in research.

#### Section-B

### Physics

#### I. Mathematical Methods of Physics

Vector algebra and vector calculus. Linear algebra, matrices, Cayley-Hamilton Theorem. Eigen values and eigenvectors. Linear ordinary differential equations of first & second order, Fourier series, Fourier and Laplace transforms. Elements of complex analysis, analytic functions; Taylor & Laurent series; poles, residues and evaluation of integrals. Elements of computational techniques: root of functions, interpolation, extrapolation, integration by trapezoid and Simpson's rule, Solution of first order differential equation using Runge-Kutta method, Tensors.

#### II. Classical Mechanics

Phase space dynamics, stability analysis. Central force motions. Two body Collisions - scattering in laboratory and Centre of mass frames. Rigid body dynamics- moment of inertia tensor. Non-inertial frames and pseudoforces. Variational principle. Generalized coordinates. Lagrangian and Hamiltonian formalism and equations of motion. Conservation laws and cyclic coordinates, small oscillations, normal modes. Special theory of relativity- Lorentz transformations, relativistic kinematics and mass-energy equivalence, Poisson brackets and canonical transformations, Symmetry, invariance and Noether's theorem. Hamilton-Jacobi theory.

#### III. Electromagnetic Theory

Electrostatics: Gauss's law and its applications, Laplace and Poisson equations, boundary value problems. Magnetostatics: Biot-Savart law, Ampere's theorem. Electromagnetic induction. Maxwell's equations in free space and linear isotropic media; boundary

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conditions on the fields at interfaces. Scalar and vector potentials, gauge invariance. Electromagnetic waves in free space, Reflection and refraction, polarization, Fresnel's law, interference, coherence, and diffraction. Lorentz invariance of Maxwell's equation. Radiation- from moving charges and dipoles and retarded potentials.

#### IV. Quantum Mechanics

Wave-particle duality. Schrödinger equation (time-dependent and time-independent). Eigen value problems (particle in a box, harmonic oscillator, etc.). Tunneling through a barrier. Commutators and Heisenberg uncertainty principle. Dirac notation for state vectors. Motion in a central potential: orbital angular momentum, angular momentum algebra, spin, addition of angular momenta; Stern-Gerlach experiment. Time-independent perturbation theory and applications. Variational method. Time dependent perturbation theory and Fermi's golden rule, selection rules. Identical particles, Pauli exclusion principle, spin-statistics connection. Spin-orbit coupling, WKB approximation. Born approximation, Relativistic quantum mechanics: Klein-Gordon and Dirac equations

#### V. Thermodynamic and Statistical Physics

Laws of thermodynamics and their consequences. Thermodynamic potentials, Maxwell relations, chemical potential, phase equilibria. Phase space, micro- and macro-states. Micro-canonical, canonical and grand-canonical ensembles and partition functions. Free energy and its connection with thermodynamic quantities. Classical and quantum statistics. Ideal Bose and Fermi gases. Blackbody radiation and Planck's distribution law. First- and second-order phase transitions. Diamagnetism, paramagnetism, and ferromagnetism, Bose-Einstein condensation.

#### VI. Electronics

Semiconductor devices (diodes, junctions, transistors, field effect devices, device structure, device characteristics, Opto-electronic devices (solar cells, photo-detectors, LEDs). Operational amplifiers and their applications. Digital techniques and applications (registers, counters, comparators and similar circuits). A/D and D/A converters. Microprocessor.

#### VII. Atomic & Molecular Physics

Quantum states of an electron in an atom. Electron spin. Spectrum of helium and alkali atom. Relativistic corrections for energy levels of hydrogen atom, hyperfine structure and isotopic shift, LS & JJ couplings. Zeeman, Paschen-Bach & Stark effects. Electron spin resonance. Nuclear magnetic resonance, Frank-Condon principle. Born-Oppenheimer approximation. Electronic, rotational, vibrational and Raman spectra of diatomic molecules, selection rules. Lasers: spontaneous and stimulated emission, Einstein A & B coefficients. Optical pumping, population inversion, rate equation.

#### VIII. Condensed Matter Physics

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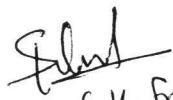
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Bravais lattices. Reciprocal lattice. Diffraction and the structure factor. Bonding of solids. Elastic properties, phonons, lattice specific heat. Free electron theory and electronic specific heat. Response and relaxation phenomena. Drude model of electrical and thermal conductivity. Hall effect and thermoelectric power. Electron motion in a periodic potential, band theory of solids: metals, insulators and semiconductors. Superconductivity: type-I and type-II superconductors. Josephson junctions. Defects and dislocations, kinds of liquid crystalline order, Quasi crystals.

## IX. Nuclear and Particle Physics

Basic nuclear properties: size, shape and charge distribution, spin and parity. Binding energy, semi-empirical mass formula, liquid drop model. Nature of the nuclear force, form of nucleon-nucleon potential, charge-independence and charge-symmetry of nuclear forces. Deuteron problem. Evidence of shell structure, single-particle shell model, its validity and limitations. Elementary ideas of alpha, beta and gamma decays and their selection rules. Fission and fusion. Nuclear reactions, reaction mechanism, compound nuclei and direct reactions, Elementary particles and their quantum numbers (charge, spin, parity, isospin, strangeness, etc.). Gellmann-Nishijima formula. Quark model, baryons and mesons. C, P, and T invariance.

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Dr. S. K. Srivastava



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# Syllabus for entrance examination for Ph.D. in Mathematics

## Section-A

### **research methodology:**

Meaning, nature, significance and types of research.

End to end process of research, research proposal, synopsis, hypothesis, data collection, literature survey, sampling, interviewing, questionnaire, data processing, interpretation, report writing, bibliography.

Thesis/Dissertation writing.

Role and use of computers in research.

## Section-B

**Algebra:** Groups, subgroups, normal subgroups, quotient groups, homomorphism's, cyclic groups, permutation groups, Cayley's theorem, class equations, Sylow theorems.

Rings, ideals, prime and maximal ideals, quotient rings, unique factorization domain, principal ideal domain, Euclidean domain. Polynomial rings and irreducibility criteria. Fields, finite fields, field extensions, Galois Theory.

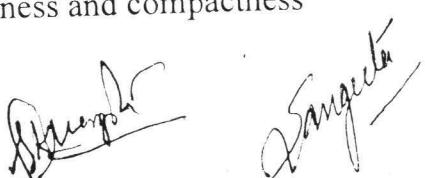
**Linear Algebra:** Vector spaces, subspaces, linear dependence, basis and dimension, linear transformation, null space, rank and nullity, range space, Matrix representation of linear transformation. Change of basis, Eigen values and eigenvectors, Inner product, orthogonality, Gram-Schmidt process, orthogonal expansion, Quadratic forms, reduction to normal form

### **Analysis:**

Elementary set theory, finite, countable and uncountable sets Real number system as a complete ordered field, Archimedean property, supremum, infimum. Sequences and series, convergence, limsup, liminf. Bolzano Weierstrass theorem, Heine Borel theorem. Continuity, uniform continuity, differentiability, mean value theorem. Sequences and series of functions, uniform convergence. Riemann sums and Riemann integral, Improper Integrals. Monotonic functions, types of discontinuity, functions of bounded variation, Lebesgue measure, Lebesgue integral.

Functions of several variables, directional derivative, partial derivative, and derivative as a linear transformation, inverse and implicit function theorems. Metric spaces, compactness, connectedness. Normed linear Spaces. Spaces of continuous functions as examples.

**Topology:** basis, dense sets, subspace and product topology, separation axioms, connectedness and compactness



**Complex Analysis:** Algebra of complex numbers, the complex plane, polynomials, power series, transcendental functions such as exponential, trigonometric and hyperbolic functions. Analytic functions, Cauchy-Riemann equations. Contour integral, Cauchy's theorem, Cauchy's integral formula, Liouville's theorem, maximum modulus principle, Schwarz lemma, Open mapping theorem. Taylor series, Laurent series, calculus of residues. Conformal mappings, Möbius transformations.

### **Ordinary Differential Equations (ODEs):**

Existence and uniqueness of solutions of initial value problems for first order ordinary differential equations, singular solutions of first order ODEs, system of first order ODEs. General theory of homogenous and non-homogeneous linear ODEs, variation of parameters, Sturm-Liouville boundary value problem, Green's function.

### **Partial Differential Equations (PDEs):**

Lagrange and Charpit methods for solving first order PDEs, Cauchy problem for first order PDEs. Classification of second order PDEs, General solution of higher order PDEs with constant coefficients, Method of separation of variables for Laplace, Heat and Wave equations.

**Numerical Analysis:** Numerical solutions of algebraic equations, Method of iteration and Newton-Raphson method, Rate of convergence, Solution of systems of linear algebraic equations using Gauss elimination and Gauss-Seidel methods, finite differences, Lagrange's and Hermite interpolation, Numerical differentiation and integration, Numerical solution of ODEs using Picard, Euler, Modified Euler and Runge-Kutta methods.

**Operation Research:** Linear programming problems, convex set, convex functions, Simplex method and its variants, duality, sensitivity analysis, Transportation problems, initial basic feasible solution and optimal solution, degeneracy, Assignment problems, application of TP and AP

**Fuzzy Logic:** Crisp set and fuzzy set basic concepts of fuzzy sets, membership functions. Basic operations on fuzzy sets, properties of fuzzy sets, Fuzzy relations. Propositional logic and predicate logic, fuzzy If-Then rules, fuzzy mapping rules and fuzzy implication functions, applications.

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