



GOVT. SWAMI ATMANAND POST GRADUATE COLLEGE

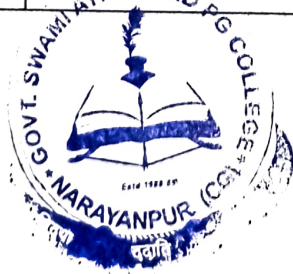
NARAYANPUR (CG)494661

Affiliated to Shaheed Mahendra Karma Vishwavidyalaya, Bastar, Jagdalpur, (C.G.)

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1.2.1

S.No.	Programme Code	Programme Name	Elective Course Detail
1	UGBC	B.COM III YEAR	Any one of the following optional group are to be chosen Optional group A 1.financial management 2.financial market Optional group B 1.principal of marketing 2.international marketing Optional group C 1,information technology and its applications in business 2.Essential of Ecommerce Optional group D 1.Fundamentals of insurance 2.Money and banking system
2	UGBA	B.A. Part-I, II & III	For B.A. Program along with the foundation courses three subjects are to be chosen from six main subjects viz. Sociology, Economics, Political Science, Geography, Hindi Literature and English Literature. At our institute six groups have been made from three of the above said eight main subjects from
3	UGBS	B. Sc. Part- III (Mathematics)	Anyone of the following four optional paper are to be chosen (for paper III) 1.Principles of computer science 2.Discrete mathematics 3.Application of mathematics in finance and insurance 4.Programming in C and numerical analysis . 5.Mathematical modeling
4	PGMA	M.A. Geography III Sem	Anyone of the following two optional paper 1.Remote sensing Techniques 2.Biogeography & Ecosystem
		M.A. Geography IV Sem	Anyone of the following two optional paper 1.Geographical Information System 2. Environmental Geography



PRINCIPAL
Government Post Graduate College
Narayanpur, Dist.- Narayanpur
Chhattisgarh

**B.A./B.Sc. Part-III
MATHEMATICS**

There shall be three theory papers. Two compulsory and one optional. Each paper carrying 50 marks is divided into five units and each unit carry equal marks.

**B.A./B.Sc. Part-III
PAPER - I
ANALYSIS**

REAL ANALYSIS

UNIT-I Series of arbitrary terms. Convergence, divergence and oscillation. Abel's and Dirichlet's test. Multiplication of series. Double series. Partial derivation and differentiability of real-valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem. Fourier series. Fourier expansion of piecewise monotonic functions.

UNIT-II Riemann integral. Inerrability of continuous and monotonic functions. The fundamental theorem of integral calculus. Mean value theorems of integral calculus. Improper integrals and their convergence. Comparison tests. Abel's and Dirichlet' tests. Frullani's integral. Integral as a function of a parameter. Continuity, derivability and integrability of an integral of a function of a parameter.

COMPLEX ANALYSIS

UNIT-III Complex numbers as ordered pairs. Geometrical representation of complex numbers. Stereographic projection. Continuity and differentiability of complex functions. Analytic functions. Cauchy- Riemann equations. Harmonic functions. Elementary functions. Mapping by elementary functions. Mobius transformations. Fixed points, Cross ratio. Inverse points and critical mappings. Conformal mappings.

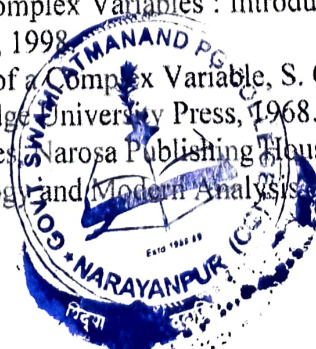
METRIC SPACES

UNIT-IV Definition and examples of metric spaces. Neighborhoods, Limit points, Interior points. Open and Closed sets, Closure and interior. Boundary points, Sub-space of a metric space. Cauchy sequences, Completeness, Cantor's intersection theorem. Contraction principle, construction of real numbers as the completion of the incomplete metric space of rationals. Real numbers as a complete ordered field.

UNIT-V Dense subsets. Baire Category theorem. Separable, second countable and first countable spaces. Continuous functions. Extension theorem. Uniform continuity, isometry and homeomorphism. Equivalent metrics. Compactness, sequential compactness. Totally bounded spaces. Finite intersection property. Continuous functions and Compact sets. Connectedness, Components, Continuous functions and Connected sets.

REFERENCES:

1. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
2. R.R. Goldberg, Real Analysis, Oxford & IBH publishing Co., New Delhi, 1970.
3. S. Lang, Undergraduate Analysis, Springer-Verlag, New York, 1983.
4. D. Somasundaram and B. Chaudhary, A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. Shanti Narayan, A Course of Mathematical Analysis, S. Chand & Co. New Delhi.
6. P.K. Jain and S.K. Kaushik, An introduction to Real Analysis, S. Chand & Co., New Delhi, 2000.
7. R.V. Churchill and J.W. Brown, Complex Variables and Applications, 5th Edition, McGraw- Hill, New York, 1990.
8. Mark J. Ablowitz and A.S. Fokas, Complex Variables : Introduction and Applications, Cambridge University Press, South Asian Edition, 1998.
9. Shanti Narayan, Theory of Functions of a Complex Variable, S. Chand & Co., New Delhi.
10. E.T. Cop son, Metric Spaces, Cambridge University Press, 1968.
11. P.K. Jain and K. Ahmad, Metric Spaces, Narosa Publishing House, New Delhi, 1996.
12. G.F. Simmons, Introduction to Topology and Modern Analysis, McGraw-Hill, 1963.





शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर

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क्रमांक / 738 / ब.वि.वि./अका./2021 जगदलपुर, दिनांक 02/09/2021
प्रति, 02 SEP 2021

1. प्राचार्य,
सगरत संबद्ध शासकीय एवं अशासकीय महाविद्यालय,
2. विभागाध्यक्ष, सगरत अध्ययनशाला,
शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर,
जगदलपुर, जिला-बस्तर (छ.ग.)

विषय :- सत्र 2021-22 में स्नातक भाग-तीन/तृतीय वर्ष/अंतिम के नवीन/संशोधित पाठ्यक्रम के संबंध में।

संदर्भ :- संयुक्त संचालक, उच्च शिक्षा संचालनालय, इन्द्रावती भवन, अटल नगर रायपुर का पत्र क्रमांक /2456/315/आउशि/सामन्वय/2019 दिनांक 16/05/2019 एवं विश्वविद्यालय का पत्र क्रमांक /5251/अका./ब.वि.वि./2019 जगदलपुर, दिनांक 03/07/2019 तथा पत्र क्रमांक /791/अका./ब.वि.वि./2020 जगदलपुर, दिनांक 09/11/2020

उपर्युक्त विषयान्तर्गत लेख है कि केन्द्रीय अध्ययन मंडल के प्रस्ताव अनुसार छत्तीसगढ़ शासन, उच्च शिक्षा विभाग द्वारा स्नातक स्तर के प्रथम वर्ष/भाग-एक, द्वितीय वर्ष/भाग-दो एवं तृतीय वर्ष/भाग-तीन के पाठ्यक्रमों में सत्र 2019-20 से परिवर्तन किया है। बस्तर विश्वविद्यालय, जगदलपुर के संदर्भित पत्र के माध्यम से संशोधित पाठ्यक्रम को सत्र 2019-20 में स्नातक स्तर के प्रथम वर्ष/भाग-एक एवं सत्र 2020-21 में स्नातक स्तर के द्वितीय वर्ष/भाग-दो के लिए लागू किये जाने की सूचना प्रेषित किया गया था।

सत्र 2021-22 में स्नातक स्तर के तृतीय वर्ष/भाग-तीन/अंतिम वर्ष के लिए नवीन/संशोधित पाठ्यक्रम को लागू किया गया है। शैक्षणिक सत्र 2021-22 प्रारंभ होने के फलस्वरूप वर्तमान सत्र में स्नातक स्तर के तृतीय वर्ष/भाग-तीन/अंतिम वर्ष के लिए नवीन/संशोधित पाठ्यक्रम अनुसार ही अध्ययन अध्यापन, परीक्षा, मूल्यांकन आदि कार्य सम्पादित करेंगे। स्नातक स्तर के प्रथम वर्ष/भाग-एक एवं द्वितीय वर्ष/भाग-दो के पाठ्यक्रम विगत सत्र के अनुसार यथावत रहेंगे।

पाठ्यक्रमों की एक प्रति महाविद्यालयों/अध्ययनशालाओं को ई-मेल के माध्यम से प्रेषित किया जा रहा है। साथ ही विश्वविद्यालय के वेबसाइट पर भी अपलोड कराया गया है, जिसका अवलोकन सगरत महाविद्यालय/अध्ययनशाला के शिक्षक एवं छात्र-छात्राएँ कर सकते हैं। भविष्य में छ.ग. शासन, उच्च शिक्षा विभाग अथवा उच्च शिक्षा संचालनालय द्वारा स्नातक स्तर के पाठ्यक्रमों के संबंध में किसी प्रकार का आदेश/निर्देश प्राप्त होने पर विश्वविद्यालय द्वारा यथासमय अवगत कराया जाएगा।

संलग्न :- उपरोक्तानुसार

कुलसचिव

शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर
जगदलपुर, जिला-बस्तर (छ.ग.)

जगदलपुर, दिनांक 02/09/2021

पृ.क्रमांक / 739 / ब.वि.वि./अका./2021
प्रतिलिपि :-

01. सचिव, छत्तीसगढ़ शासन, उच्च शिक्षा विभाग, मंत्रालय, महानदी भवन, नवा रायपुर अटल नगर, जिला-रायपुर की ओर सूचनार्थ प्रेषित।
02. आयुक्त, उच्च शिक्षा संचालनालय, ब्लॉक-सी 30, द्वितीय एवं तृतीय तल, इन्द्रावती भवन, नवा रायपुर अटल नगर, जिला-रायपुर की ओर सूचनार्थ प्रेषित।
03. माननीय कुलपति महोदय, शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर जगदलपुर की ओर सूचनार्थ प्रेषित।
04. क्षेत्रीय अपर संचालक, उच्च शिक्षा, शासकीय काकतीय स्नातकोत्तर महाविद्यालय, जगदलपुर की ओर सूचनार्थ प्रेषित।
05. सहायक कुलसचिव (माननीय/परीक्षा) शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर, जगदलपुर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।



सहायक कुलसचिव (अकादमिक)
शहीद महेन्द्र कर्मा विश्वविद्यालय, बस्तर
जगदलपुर, जिला-बस्तर (छ.ग.)

SYLLABUS B.COM. PART-III

GROUPING OF SUBJECTS AND SCHEME OF EXAMINATION

Subject		Max.	Min.
Foundation Course			
I. Hindi Language		75	26
II. English Language		75	26
Compulsory Groups			
Group-I			
I. Income Tax	75	150	50
II. Auditing	75		
Group-II			
I. Indirect Taxes with GST	75	150	50
II. Management Accounting	75		
Group-III Optional			
Option Group A (Finance Area)			
I. Financial Management	75	150	50
II. Financial Market Operations	75		
Option Group B (Marketing Area)			
I. Principles of Marketing	75	150	50
II. International Marketing	75		
Option Group C (Commercial Area)			
I. Information Technology and its Applications in Business	75	150	50
II. Essential of e-Commerce	75		
Option Group D (Money Banking & Insurance Area)			
I. Fundamental of Insurance	75	150	50
II. Money & Banking System	75		



1. Monkhouse, J. & H.C. Wilkin on Maps and Diagrams, Methuen, London.
2. **सर्वेक्षण एवं विमानचित्रण (सर्वेक्षण, आरेख) - भाग I एवं भाग II, पी. टी. सिंह द्वारा रचित।**
3. **सर्वेक्षण - भाग I एवं भाग II**

M.A./M. Sc. GEOGRAPHY
SEMESTER III (2015-16)

M.A./M. Sc. Geography Semester III shall consist the following papers.

S. No.	Paper	Title	M. M.		
			Written	Inte. Asse.	Total
1.	XI	Population Geography	80	20	100
2.	XII	Settlement Geography	80	20	100
3.	XIII (A)	Remote Sensing Techniques	80	20	100
	OR	OR			
4.	XIII (B)	Biogeography and Ecosystem	80	20	100
5.	IV	Research Methodology	80	20	100
	V	Practical-III : Remote Sensing and Quantitative Techniques	---	---	100

The M.A./M. Sc. Semester III examination in Geography shall consist of 5 papers of 100 marks each.

There shall be four theory papers each of 100 marks and one practical of 100 marks as follows:

- Paper XI : Population Geography
 Paper XII : Settlement Geography
 Paper XIII (A) : Remote Sensing Techniques
 OR
 Paper XIII (B) : Biogeography and Ecosystem
 Paper XIV : Research Methodology
 Paper XV : Practical - III: Remote Sensing and Quantitative Techniques

2. The theory papers shall be given from 2 to 3 hours.

3. Candidates will be allowed to use calculators in theory and practical examinations.

4. (a) In the practical examination, candidates shall be the allotment of time and marks.

(i) Practical - III : Remote Sensing and Quantitative Techniques : 20%

(ii) Lab work (up to Four hours) : 20%

(iii) Viva on I. & II. Above : 10%

(b) The external and internal examiners shall jointly submit marks.

(c) All the candidates shall present at the time of the practical examination their record regularly signed by the teachers concerned.

SEMESTER - III (2015-16)

PAPER - XI

POPULATION GEOGRAPHY

UNIT - I : Definition and scope of Population Geography, Relation of Population Geography with other subjects of social sciences, Historical development of Population Geography in western countries and in India, Sources of population data, Census and its history.

UNIT - II : Distribution of Population, The concept of population density and its types, Factors affecting population distribution, Distribution & Density of population in the world with special reference to Europe, Asia and India, Growth of population, Measure of decennial and annual rates of population growth, prehistoric and modern trends of population growth in the world, Regional aspect of population growth in India, Population theories, Demographic transition.

UNIT - III : Population composition in terms of age and sex, rural-urban residence, educational status and occupational structure, Significance of these elements in population analysis, factors affecting their composition in population, broad world patterns and detailed spatial patterns in India, Fertility and Mortality of population: Significance and factors, indices and rates, World pattern and pattern in India.

UNIT - IV : Migration of population, Causes, characteristics and types, Methods of estimating value of internal migration, Important international migrations of the world, internal migration in India: Population and Resources: Population-Resource regions, Population Regions: Concept, Land methods, population regions of India, population policies of India.

SUGGESTED READINGS:

1. Blasiarow, Richard H and Danver Hogan, Population and Deforestation in the Humid Tropics, International Union for the Scientific Study of Population, Belgium 1969.
2. Boglia, D.J. Principles in Demography, John Wiley, New York 1969.



3. Conipbell .I. : Introduction to Remote Sensing, Glnford, New York, 1989.
4. Clirran, Paul J. : Principles of Remote Sensing, Longman, London, 1985
5. Hord R.M. : Digital Image Processing of Remotely Sensed Data, Academic, New York, 1983
6. Luder D., Aerial Photography Interpretation : Principles and Application, Cc Gray Hill, New York, 1959.
7. Pratt W.K. Digital Image Processing, Wiley, New York, 1978
8. Rao D. P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysicists, Hyderabad, 1998.
9. Thomas M. Lillesand and Ralph W. Keler, Remote Sensing and Image Interpretation, Wiley & sons, New York, 1994.
10. Aronoff S. Geographic Information Systems: A Management Perspective, Publication Offawa, 1989.
11. Burrolth P.A. Principles of Geographic Information Systems for Land Resor Assessment Oxford University Press, New York, 1986.
12. Fraser Taylor D.R. Geographic information Systems, Pergamon Press, Oxford 1990.
13. Maquire D.J.M. F. Goodchild and D.W. Rhind (eds.), Geographic Information Systems Principles and Application, Taylor & Francis, Washington, 1991.
14. Mark S. Monmonier. Computer-assisted Cartography, Prentice Hall, Englewood Cliff, Jersey, 1982.
15. Pouquer D.J. and D.F. Marble, Introductory Reading in Geographic Information System Taylor & Francis, Washington, 1990.
16. Star J. and J. Estes. Geographic Information Systems: An Introduction, Prentice Eaglewood Cliff, New Jersey, 1991.

**M.A./M. Sc. GEOGRAPHY
SEMESTER IV (2015-16)**

M.A./M.Sc. Geography Semester IV shall consist the following papers:

S. No.	Paper	Title	M. M.		
			Written	Int. Ass.	Total
1.	XVI	Urban Geography	80	20	100
2.	XVII	Agricultural Geography	80	20	100
	XVIII (A)	Geographical Information Systems	80	20	100
	OR	OR			
4.	XVIII (B)	Environmental Geography	80	20	100
	XIX	Political Geography	80	20	100
5.	XX	Practical-IV: Geographical Information Systems and Quantitative Techniques			

1. The M.A./M.Sc. Semester IV examination in Geography shall consist of 500 marks.

There shall be three theory papers and one Field Work report each of 100 marks and one practical of 100 marks as follows.

S. No.	Paper	Title
1.	XVI	Urban Geography ✓
2.	XVII	Agricultural Geography ✓
3.	XVIII (A)	Geographical Information System OR
	XVIII (B)	Environmental Geography ✓
4.	XIX	Political Geography
5.	XX	Practical-IV: Geographical Information system and Quantitative Techniques

2. The theory papers shall be of three hours duration.

3. Candidates will be required to pass separately in theory and practical examinations.
4. Candidates will be required to submit their Field Report in three copies in hard bound at least one hundred pages for Valuation.

5. (a) In the practical examination the following shall be the allotment of time and marks.

(i) Practical record	20%
(ii) Lab work (up to Four hours)	70%
(iii) Viva on i. & ii. above	10%

(b) The external and internal examiners shall jointly submit marks.

(c) All the candidates shall present at the time of the practical examination their practical record regularly signed by the teachers concerned.

SEMESTER - IV (2015-16)

PAPER-XVI

URBAN GEOGRAPHY

UNIT - I Definition, Objective and Scope of urban geography, General Nature of City Structure.

UNIT - II Internal structure: Morphology and Land use, Theories of Urban Structure, The Concentric Zone Theory, the Sector Theory, the Multiple Nuclei Theory, Commercial Structure of Cities, The Central Business District (CBD).

UNIT - III Centrifugal and Centripetal forces in Geography, Economic Base of Towns: Basic, Non-basic concept, Urban Functions: Functional Classification of Towns; Webb, Harris, and Nelson.

UNIT - IV Contemporary Urban Issues: Urban renewal, Urban sprawl, Slums, Environmental Pollution, Urban Planning, Landuse Planning, Urban and Metropolitan Planning in India.

