

**SHAHEED MAHENDRA KARMA VISHWAVIDYALAYA, BASTAR, JAGDALPUR
SESSION 2021-22**

एम.ए. (अंतिम) राजनीति विज्ञान

M.A. (Final) Political Science

(वार्षिक परीक्षा प्रणाली/पद्धति - अमहाविद्यालयीन परीक्षार्थियों के लिए)

(Annual Examination Pattern - For Non-Collegiate Examinees only)

प्रश्नपत्र - तृतीय

Paper-III

शोध प्रविधि

Research Methodology

Maximum Marks: 100

Minimum Passing Marks: 36

- इकाई-1** सामाजिक शोध की प्रकृति, महत्व एवं उपयोग शुद्ध एवं व्यावहारिक शोध, शोध समस्या की पहचान, शोध अभिकल्प, उपकल्पना का निर्माण एवं परीक्षण।
- इकाई-2** सामाजिक सर्वेक्षण-उद्देश्य, महत्व, प्रक्रिया, तथ्य संकलन की तकनीकी तथ्यों के प्राथमिक एवं द्वितीय स्त्रोत। अवलोकन पद्धति, साक्षात्कार पद्धति, प्रश्नावली एवं अनुसूची।
- इकाई-3** अध्ययन के विभिन्न प्रकार-पेनल केस एवं क्षेत्रीय अध्ययन, निदर्शन, अनुमापन प्रविधियों, प्रक्षेपी प्रविधियों।
- इकाई-4** अनुसंधान दल, अनुसंधान की समस्या, तथ्यों का वर्गीकरण एवं सारणीयन, तथ्यों का विश्लेषण एवं व्याख्या।
- इकाई-5** प्रतिवेदन लेखन तथ्यों का चित्रमय प्रदर्शन, सामाजिक अनुसंधान में सांख्यिकी का प्रयोग एवं सीमाएँ। मीन, मोड, मीडियम। कम्प्युटर का उपयोग।

**B.Sc. Part-III
ZOOLOGY
PAPER-I
ECOLOGY, ENVIRONMENTAL BIOLOGY:
TOXICOLOGY, MICROBIOLOGY AND MEDICAL ZOOLOGY**

- UNIT- I (Ecology)**
- Aims and scopes of ecology
 - Major ecosystems of the world-Brief introduction
 - Population- Characteristics and regulation of densities
 - Communities and ecosystem
 - Bio-geo chemical cycles
 - Air & water pollution
 - Ecological succession
- UNIT- II (Environmental Biology)**
- Laws of limiting factor
 - Food chain in fresh water ecosystem
 - Energy flow in ecosystem- Trophic levels
 - Conservation of natural resources
 - Environmental impact assessment
- UNIT-III (Toxicology)**
- Definition and classification of Toxicants
 - Basic Concept of toxicology
 - Principal of systematic toxicology
 - Heavy metal Toxicity (Arsenic, Mercury, Lead, Cadmium)
 - Animal poisons- snake venom, scorpion & bee poisoning
 - Food poisoning
- UNIT-IV (Microbiology)**
- General and applied microbiology
 - Microbiology of domestic water and sewage
 - Microbiology of milk & milk products
 - Industrial microbiology: fermentation process, production of penicillin, alcoholic beverages', bioleaching.
- UNIT-V (Medical Zoology)**
- Brief introduction to pathogenic microorganisms, Rickettsia, Spirochetes, AIDS and Typhoid
 - Brief account of life history & pathogen city of the following pathogens with reference to man: prophylaxis & treatment
 - Pathogenic protozoan's- Endameba, Trypanosome & Plasmodium
 - Pathogenic helminthes- Schist soma
 - Nematode pathogenic parasites of man
 - Vector insects




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B.Sc. Part-I
ZOOLOGY
PAPER-I

CHORDATA AND EMBRYOLOGY

UNIT-I

1. Classification of Hemichordata
2. Hemichordata- Type study-Balanoglossus
3. Classification of Chordates upto orders..
4. Protochordata-Type study - Amphioxus.
5. A comparative account of Petromyzon and Myxine.

UNIT-II

1. Fishes-Skin & Scales, migration in fishes, Parental care in fish.
2. Amphibia-Parental care and Neoteny.
3. Reptilia- Poisonous & Non-poisonous Snakes, Poison apparatus, snake venom and Extinct Reptiles

UNIT-III

1. Birds- Flight Adaptation, Migration, and Perching mechanism, Discuss-Birds are glorified reptiles.
2. Mammals-Comparative account of Prototheria, Metatheria, Eutheria and Affinities.
3. Aquatic Mammals and their adaptations.

UNIT-IV

1. **Fertilization**
2. Gametogenesis, Structure of gamete and Types of eggs
3. Cleavage
4. Development of Frog up to formation of three germ layers.
5. Parthenogenesis

UNIT-V

1. Embryonic induction, Differentiation and Regeneration.
2. Development of Chick (a) up to formation of three germ layers, (2) Extra-embryonic
3. membranes.
4. Placenta in mammals.



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