



**B. A. COLLEGE OF AGRICULTURE
ANAND AGRICULTURAL UNIVERSITY
ANAND - 388 110**

**POST GRADUATE EVEN SEMESTER END EXAMINATION 2018-19
SOILS 505 - SOIL EROSION AND CONSERVATION (2+1)**

Date : 10/01/2019
Day : Thursday

Time : 1400-1600 hrs.
Marks : 50.00

Q-1 [A] Define/ Explain the following terms [8.0]

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|---------------------------|----------------------|
| 1. Run-Off | 2. Soil productivity |
| 3. Watershed | 4. Soil conservation |
| 5. potential energy | 6. Kinetic Energy |
| 7. Water holding capacity | 8. Surface creep |

[B] Define soil erosion and give different types of soil erosion. [4.0]

Q.2 [A] Differentiate the following terms (Any Five) [10.0]

1. Splash erosion and Sheet erosion
2. Erosivity and Erodibility
3. Threshold velocity and Terminal velocity
4. Saltation and Suspension
5. Contour bunding and Graded bunding

Q. 3 [B] Explain the different phase of soil movement. [4.0]

[A] Give reason(s) for the following (Any Four) [8.0]

1. Why soil conservation is very important?
2. why watershed management approach is not that much successful ?
3. Wind erosion is serious hazard on cultivated soils.
4. why Soil Productivity Is Decline ?
5. A vegetative cover on the soil surface prevents detachment.

[B] State and explain the universal soil loss equation. [4.0]

Q. 4 [A] Write short notes (Any Three) [12.0]

1. Role of agro-forestry in soil and water conservation
2. Explain the different factors affecting soil erosion.
3. Enlists the benefits of mixed cropping
4. Explain the gully erosion and its control

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POST GRADUATE EVEN SEMESTER END EXAMINATION 2018-19
AG.ECON.506 RESEARCH METHODOLOGY FOR SOCIAL SCIENCES

Date:11/01/2019

Time: 14.00 to 16.00

Day: Friday

Marks: 50

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| Q.1 Define the Research & give its importance, briefly describes the different steps involved in a research methodology | 5 |
| Q.2 Describe the different types of hypothesis, with proper example related to your subject | 5 |
| Q.3 Define data? Give different sources of data and explain any one | 5 |
| Q.4 Describe the significant (importance) of research for India in era of globalization | 5 |
| Q.5 Write short notes(any three) on | 9 |
| <ul style="list-style-type: none"> 1. Ex post facto research 2. Criteria of good research 3. Principals of tabulation 4. Research report | |
| Q.6 Answer as directed (any six) | 12 |
| <ul style="list-style-type: none"> 1. Enlist the steps in sample design 2. Enlist the steps in the Research process and explain any one in brief 3. Empirical research in India in particular creates so many problems for the researchers". State the problems that are usually faced by such researchers 4. Research is much concerned with proper fact finding, analysis and evaluation." Do you agree with this statement? Give reasons in support of your answer. 5. List out the methods of sampling 6. Enlist different sources of data availability for Economic Research (Sites & references) 7. The three key points of a literature review | |
| Q.7 Define/Explain | 3 |
| <ul style="list-style-type: none"> 1.Sampling 2.Open ended question 3. Coding 4. Editing 5.Tabulation 6.Research Methodology | |
| Q.8 Distinguish the term (any three) | 6 |
| <ul style="list-style-type: none"> 1. Primary data and Secondary data 2. Personal Interviews and Telephonic Interviews 3. Applied Research and Fundamental research 4. Quantitative approach to Research and the qualitative approach to Research | |



B. A. COLLEGE OF AGRICULTURE
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POSTGRADUATE EVEN SEMESTER END EXAMINATION-2018
COURSE NO. & TITLE: BIOCHEM 505 TECHNIQUES IN BIOCHEMISTRY (1+2)

Date : 12/01/2019

Time : 1400 to 1600 hrs.

Day : Saturday

Marks : 50.00

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- Q.1 (A) Define(Any five) (5.0)**
- (1) Electrophoresis (2) Isoelectric Focusing (3) True protein (4) Iso Top
(5) Chemometrics (6) Balance
- Q-2 Give the Chemistry and details method for Following estimation. (Any Three) (9.0)**
1. Estimation of soluble sugars.
 2. Estimation of Ascorbic acid.
 3. Crude Protein.
 4. Estimation of Phenol.
- Q-3 Write the significance of followings. (5.0)**
1. K_2SO_4 2. $CuSO_4$ 3. HgO 4. SDS 5. BisAcylamide
- Q-4 Write down Full name of following (5.0)**
1. TEMED 2. UPLC 3. SDS 4. PAGE 5. GC 6. APS
- Q.5 Answer the following in brief(Any Five) (10.0)**
1. Enlist type, principle and use of balance.
 2. What do you meant by Native-PAGE?
 3. What is Buffer? Give examples.
 4. Write Native PAGE Vs SDS PAGE.
 5. Enlist the role of NIR in various industries.
 6. What is *Radioactivity*?
 7. Write the Lambert-beer law.
 8. Write the principle of HPLC.
- Q-6 Write short note. (16.0)**
1. Electrophoresis.
 2. Applications of radioisotopes in Biological Science.
 3. Application of NIR.
 4. Chromatography Techniques.