



**MONAD UNIVERSITY HAPUR (UP)**  
**(SCHOOL OF AGRICULTURE SCIENCE & ENGINEERING)**

Course : M.Tech.(S.W.C.)III<sup>Sem</sup>  
Subject Name : Statistics  
Sub. Code : MT-AGS-231  
Assignment No: I

**Due date of submission: 10.11.2016**

**Instruction**

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

**Q.1:-**

- (a) In a certain factory producing cycle tyres, there is a small chance of 1 in 500 tyres to be defective. The tyres are supplied in lots of 10. Using Poisson distribution, calculate the approximate number of lots containing no defective, one defective and two defective tyres, respectively in a consignment of 10,000 lots.
- (b) Calculate the coefficient of correlation between the marks obtained by 8 students in mathematics and statistics.

| Students    | A  | B  | C  | D  | E  | F  | G  | H  |
|-------------|----|----|----|----|----|----|----|----|
| Mathematics | 25 | 30 | 32 | 35 | 37 | 40 | 42 | 45 |
| Statistics  | 8  | 10 | 15 | 17 | 20 | 23 | 24 | 25 |

**Q2:-**

- (a) A policeman fires 6 bullets on a dacoit. The probability that the dacoit will be killed by a bullet is 0.6. What is the probability the dacoit is still alive?
- (b) A bag contains 50 tickets with numbered 1,2,3,4,.....,50, of which five are drawn at random and arranged in ascending order of magnitude what is the probability that third drawn is 30.



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Course : M.Tech.(S.W.C.)III<sup>Sem</sup>  
Subject Name : Agricultural Meteorology  
Sub. Code : MT-AGS-232  
Assignment No: I

**Due date of submission: 10.11.2016**

**Instruction**

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

**Q.1:-**

- (a) What do you mean by atmosphere? Write the origin of atmosphere. Describe composition of the atmosphere.
- (b) Define run-off? Write the classification of types of run-off and explain Every one.

**Q.2:-**

- (a) What do you mean by Hydrological Cycle? Write and explain physical components of Hydrological Cycle with a suitable diagram.
- (b) How many types of instruments used in meteorological observatory? Explain Symones Non-Automatic rain gauge with a suitable diagram.



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Course : M.Tech.(S.W.C.)III<sup>Sem</sup>  
Subject Name : Soil-Water-Plant Relationship  
Sub. Code : MT-AGS-233  
Assignment No: I

**Due date of submission: 10.11.2016**

**Instruction**

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

**Q.1:-**

- (a) Define Evaporation? Explain the source and losses of soil water.
- (b) What is Evapo – Transpiration? Explain the factor affecting of Evapo – Transpiration.

**Q.2:-**

- (a) What is Permeability? Write the components of water potential.
- (b) What is available water? Write the biological classification of soil water and water availability to plants.



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Course : M.Tech.(S.W.C.)III<sup>Sem</sup>  
Subject Name : Watershed Development & Management  
Sub. Code : MT-AGS-234  
Assignment No: I

**Due date of submission: 10.11.2016**

**Instruction**

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

**Q.1:-**

(a) What do you mean by hydrologic Water – Budget? How many types of runoff computation method? Explain any one.

(b) Define hydrograph? Describe the advantage & disadvantage of arithmetic mean.

**Q.2:-**

(a) Explain, why statistical and probability studies are important in hydrology? Define skewness.

(b) How many types of physiographic factor? Determine the runoff coefficient of the watershed based on following database-

| <i>Sub Watershed</i>      | <i>A</i>    | <i>B</i>    | <i>C</i>    | <i>D</i>     | <i>E</i>    |
|---------------------------|-------------|-------------|-------------|--------------|-------------|
| <i>Runoff Coefficient</i> | <i>0.35</i> | <i>0.70</i> | <i>0.57</i> | <i>0.75</i>  | <i>0.60</i> |
| <i>Area (ha)</i>          | <i>50</i>   | <i>75</i>   | <i>12.5</i> | <i>21.70</i> | <i>1.5</i>  |