# Govt. College for Girls, Padha (Karnal)

## Lesson Plan for Even Semester

**Name of the teacher-** PREETI RANI

**Class- B.A.6$^{TH}$ SEM**

**Subject-MATHEMATICS**

**Paper- REAL AND COMPLEX ANALYSIS**

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| **1$^{st}$ Week** | Jacobians. |
| **2$^{nd}$ Week** | Beta and Gamma functions. |
| **3$^{rd}$ Week** | Double and triple integrals. |
| **4th Week** | Dirichlet's integrals. |
| **5th Week** | Change of order of integration in double integrals. |
| **6th Week** | Fourier's series: Fourier expansion of piecewise monotonic functions. |
| **7th Week** | Properties of Fourier coefficients. Dirichlet's conditions. |
| **8th Week** | Parseval's identity for Fourier series. |
| **9th Week** | Fourier series for even and odd functions. |
| **10th Week** | Half range series. Change of intervals. |
| **11th Week** | Extended complex plane.Stereographic projection of complex numbers. |
| **12th Week** | Continuity and differentiability of complex functions. |
| **13th Week** | Analytic functions. |
| **14th Week** | Cauchy-Riemann equations. |
| **15th Week** | Harmonic functions |
| **16th Week** | Mappings by elementary functions: Translation, Rotation,Magnification and Inversion. |
| **17th Week** | Conformal mappings,Mobius transformations. |
| **18th Week** | Fixed points,Cross ratio,Inverse points and Critical mappings. |
| **19th Week** | TEST AND REVISION. |