



# VIDYASAGAR UNIVERSITY

Office of the Secretary, Council for Undergraduate Studies

Midnapore - 721102, Paschim Medinipur, West Bengal.

Ref. No. VU/UG/ 25 /2024

Dated: 22.04.2024

To  
The Principal/TIC/OIC(s)  
All the affiliated Colleges under  
Vidyasagar University

**Reg. - Guidelines for examination of Skill Enhancement Course (SEC)-01 of Mathematics,  
under CCFUP, 2023-24**

Sir / Madam,

The guidelines for examination of Skill Enhancement Course (SEC)-01 related to **Mathematics** programmes under CCFUP, 2023-24 (NEP) with effect from Semester-I Examinations, 2023-24, have been enclosed herewith for your kind perusal and circulation to the concerned faculties.

All concerned are hereby informed and requested to follow the said guidelines.

Thanking you with regards,

Sd/-

Secretary  
UG Council

**Copy forwarded to:**

1. The Chairperson, UG BOS in Mathematics
2. The Controller of Examination, VU
3. The Inspector of Colleges, VU

Secretary  
UG Council

Secretary  
U. G. Council  
VIDYASAGAR UNIVERSITY

Phone: 03222-276554/276555/276557/276558 : Extn : 260

Website: <http://vidyasagar.ac.in>

Course Type:  
SEC

Course Code:  
MATSEC01

F.M.-50

Course Title:  
MATLAB-1 (Practical)

Time: 3 hours

**Marks Breaks up:**

- (i) Continuous Assessment: 10 Marks
- (ii) Notebook & viva voice: 5+5 Marks
- (iii) Three programming questions: 10+10+10 marks

**One question from Group-A: General MATLAB programming based on items in syllabus (I) to (V). 1 × 10**

- I. Find the sum, product, max, min of a list of number in an array, in a sub-array without library function.
- II. Find a sub-matrix of the given matrix.
- III. Find the column sum, product, max, min of the given matrix without library function.
- IV. Find the row sum, product, max, min of the given matrix without library function.
- V. Define any transcendental function and then find and show the table of its functional values.

**One question from Group-B: Plotting MATLAB programming based on items in syllabus (VI) & (VII). 1 × 10**

- VI. Plotting of graph of functions  $e^{ax+b}$ ,  $\log(ax + b)$ ,  $\log \frac{1}{ax+b}$ ,  $\sin(ax + b)$ ,  $\cos(ax + b)$ ,  $|ax + b|$  and to illustrate the effect of a and b on the graph.
- VII. Plotting the graphs of polynomial of degree 4 and 5, the derivative graph, the second derivative graph and comparing them.

**One question from Group-C: Tracing and Sketching MATLAB programming based on items in syllabus (VIII) to (X). 1 × 10**

- VIII. Sketching parametric curves (eg. trochoid, cycloid, epicycloids, hypocycloid).
- IX. Tracing of conics in cartesian coordinates/ polar coordinates.
- X. Sketching ellipsoid, hyperboloid of one and two sheets, elliptic cone, elliptic, paraboloid, and hyperbolic paraboloid using cartesian coordinates.