



## 2.6.1

### Attainment of COs and POs in B.Sc. Hons. Mathematics Programme

Programme Code: MAT

Batch: 2018-21

#### 1. Computation of CO and PO attainment

The skill development and performance of the students are measured and evaluated across the course outcomes periodically by the course teachers and the end semester examination. There are two components of assessment, namely, a formative assessment through Continuous Internal Assessment (CIA) and a summative assessment through an End Semester Examination (ESE). CIA comprises mid-term examination, class activity, assignment, powerpoint presentations, quiz, group discussion, debate, case study and field visit. ESE is the written and practical examination that measures CO attainment by evaluating conceptual knowledge, analytical and problem solving skills.

The attainment is measured at the course and programme levels. The benchmarks for CO attainment and PO attainment are set according to the OBE policy of the College. A standard template was designed for the computation of CO & PO in Microsoft Excel. The attainment is measured for each course outcome, course and PO in Excel worksheets.

#### 2. CO Attainment – B.Sc. MAT

The attainment of course outcomes is measured using two attainment indicators: CO attainment indicator 1 and CO attainment indicator 2.

- i. CO attainment indicator 1 measures the attainment at course level based on the average marks of students of a batch attaining the course outcomes across all the courses of a particular programme.
- ii. CO attainment indicator 2 measures the attainment at course level based on the percentage of students of a batch attaining the course outcomes across all the courses of a particular programme.



Course Outcome Attainment Indicator 1 of B.Sc. MAT programme is shown in table 1.

**Table 1: Course Outcome Attainment Indicator 1 - B.Sc. MAT**

Attainment Levels		Attainment Status
Level 2	26	Attained
Level 1	0	Not Attained

**Total number of courses: 26**

**Interpretation:**

- Level 2: Average score of 50% and above in course outcomes of a particular course
- Level 1: Average score of less than 50% in course outcomes of a particular course.

Table 1 indicates that out of the 26 courses of the B.Sc. MAT 2018 – 21 Programme, all courses have achieved the COs at Level 2. It is inferred that all the 26 courses have attained CO benchmark of 50%.

Course Outcome Attainment Indicator 2 of B.Sc. MAT programme is shown in table 2.

**Table 2: Course Outcome Attainment Indicator 2 - B.Sc. MAT**

Attainment Levels		Attainment Status
Level A	26	Attained
Level B	0	Not Applicable
Level C	0	Not Applicable
Level D	0	Not Applicable
Level E	0	Not Applicable
Level F	0	Not Attained

**Total number of courses: 26**



# PATNA WOMEN'S COLLEGE



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### Interpretation:

- Level A - More than 90% of the students have attained the COs of a particular course
- Level B - More than 80% of the students have attained the COs of a particular course
- Level C - More than 70% of the students have attained the COs of a particular course
- Level D - More than 60% of the students have attained the COs of a particular course
- Level E - 50% and above of the students have attained the COs of a particular course
- Level F - COs of a particular course have not been attained

Table 2 indicates that out of 26 courses, the CO attainment is at Level A for all 26 courses in terms of the number of students attaining the COs. It is observed that CO benchmark is attained in 26 courses out of 26 courses.

### 3. PO Attainment - B.Sc. MAT

CO attainment implies PSO attainment. PSO attainment implies PO attainment. PO attainment is measured as the average percentage of marks obtained by all the students across all the courses of the programme that are mapped to a particular PSO. The attainment of programme outcomes is indicated at two levels. B.Sc. MAT 2018-21 has seven programme outcomes. 26 courses of B.Sc. MAT programme are mapped to the seven PSOs. Table 3 depicts the various levels of PSO attainment in B.Sc. MAT programme.

Table 3: Levels of PSO Attainment of B.Sc. MAT

PSO Attainment		Attainment Level	Attainment Status
PSO1	79.27	Level 2	Attained
PSO2	87.70	Level 2	Attained
PSO3	67.76	Level 2	Attained
PSO4	79.61	Level 2	Attained
PSO5	81.62	Level 2	Attained
PSO6	81.86	Level 2	Attained
PSO7	77.94	Level 2	Attained



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## Interpretation:

- Level 2: Average score of 60% and above in courses mapped to a particular PSO.
- Level 1: Average score of less than 60% in courses mapped to a particular PSO.

Table 3 indicates that all seven PSOs of B.Sc. MAT 2018-21 is attained at level 2.

## 4. Conclusion

- i. CO attainment indicator 1: All 26 courses have attained CO benchmark of 50%.
- ii. CO attainment indicator 2: CO benchmark is attained in 26 courses.
- iii. PO attainment: All seven PSOs of B.Sc. MAT 2018-21 have been attained.



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