



2.6.1

Attainment of COs and POs in MCA Programme

Programme Code: MCA

Batch 2021-23

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 – MCA

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.



PATNA WOMEN'S COLLEGE

AUTONOMOUS

Patna University

3rd Cycle NAAC Accredited at A Grade with CGPA 3.58/4

'College with Potential for Excellence' (CPE) status accorded by UGC



Course Outcome Attainment Indicator 1 of MCA programme is shown in table 1.

Table 1: Course Outcome Attainment Indicator 1 - MCA

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

Total number of courses: 26

Interpretation:

- Level 2: Average score of 55% and above in course outcomes of a particular course.
- Level 1: Average score of less than 55% in course outcomes of a particular course.

Table 1 indicates that out of the 26 courses of the MCA 2021-23 Programme, 26 courses have achieved the COs at Level 2. It is inferred that 26 courses have attained CO benchmark of 55%.

Course Outcome Attainment Indicator 2 of MCA programme is shown in table 2.

Table 2: Course Outcome Attainment Indicator 2 - MCA

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

AUTONOMOUS

Patna University

3rd Cycle NAAC Accredited at A Grade with CGPA 3.58/4

'College with Potential for Excellence' (CPE) status accorded by UGC



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 26 courses in terms of the number of students attaining the COs. It is observed that CO benchmark is attained in all the 26 courses.

3. PO Attainment -MCA

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 PO. The attainment of programme outcomes is indicated at two levels. MCA 2021-23 has six programme outcomes. 42 courses of MCA programme are mapped to the six POs. Table 3 depicts the various levels of PSO attainment in MCA programme.

Table 3: Levels of PSO Attainment of MCA

PSO Attainment		Attainment Level	Attainment Status
PSO1	78.83	Level 2	Attained
PSO2	75.95	Level 2	Attained
PSO3	82.54	Level 2	Attained
PSO4	77.77	Level 2	Attained
PSO5	74.58	Level 2	Attained
PSO6	82.84	Level 2	Attained



PATNA WOMEN'S COLLEGE

AUTONOMOUS

Patna University

3rd Cycle NAAC Accredited at A Grade with CGPA 3.58/4

'College with Potential for Excellence' (CPE) status accorded by UGC



Interpretation:

- Level 2: Average score of 60% and above in courses mapped to a particular PO.
 - Level 1: Average score of less than 60% in courses mapped to a particular PO.
- Table 3 indicates that all six POs of MCA 2021-23 is attained at level 2.

4. Conclusion

- i. CO attainment indicator 1: All 26 courses have attained CO benchmark of 55%.
- ii. CO attainment indicator 2: CO benchmark is attained in 26 courses.
- iii. PO attainment: All six POs of MCA 2021-23 have been attained.

M. Rashmi A.C.

(Dr. Sister M. Rashmi A.C.)

Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

