



CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

## Internal Evaluation, Concurrent Evaluation and External Evaluation

### Master of Computer Application (MCA)(2020 Pattern)

#### Internal Evaluation

The internal assessment follows the guidelines of the respective program, specifically the MCA program provided by Siddhant Institute of Computer Application, affiliated with SPPU.

The MCA program operates on a Choice Based Credit System (CBCS), allowing students to earn their degree by accumulating the specified number of credits associated with the program. Each course is allocated a set number of credits, determined by the content to be mastered and the anticipated effort required from the student. The primary distinguishing features of the Choice Based Credit System include Continuous Learning and Student-Centric Concurrent Evaluation.

#### MCA Program Structure

Course Type	Credit	Total Credit During MCA	Internal Evaluation	End Semester Evaluation	Total
Subjects	3	51	25	50	75
Open Source Subjects	1	6	25	0	25
Practical	5	15	75	50	125
Mini Projects	5	15	75	50	125
Soft Skills	1	3	25	0	25
Project	22	22	300	250	550
Total Credit		112	1400	1400	2800





CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

## Evaluation and Assessment:

The workload in the MCA programme is made up of a total of 112 credits.

Semester	Credit	IE	UE
Semester I	28	350	350
Semester II	28	350	350
Semester III	28	350	350
Semester IV	28	350	350
<b>Total</b>	<b>112</b>	<b>1400</b>	<b>1400</b>
			<b>2800</b>

The final total assessment of the candidate is made in terms of an internal (concurrent) evaluation and an external (university) examination for each course.

The MCA programme is a combination of:

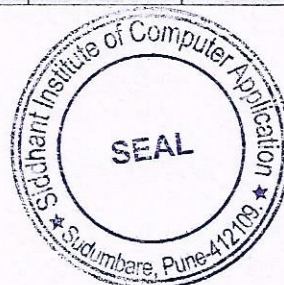
- Three-Credit Courses (75 Marks each): 3 Credits each
- Two-Credit Courses (50 Marks each): 2 Credits each
- One-Credit Courses (25 Marks each): 1 Credits each

## 1. Examination Scheme:

### 2.1 Three Credit Courses (75 Marks each):-

For each credit course, 25 points will be based on evaluation and 50 marks will be awarded for the university's semester test.

Sr. No.	Exam	Marks		Converted
1.	Mid Term	20	80	10
2.	End term	50		
3.	Course Exit Survey	10		
4.	Continues Assessment			
	Problem Based Assessment/ Practical based Assessment(PBA)	50	50	10
	Theory based Assessment/ Tutorial Based Assessment(TBA)	20	20	10
<b>Total Marks</b>		150		25





CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph: 02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

The internal evaluation of 25 marks further divided into Written Examination (Assignments/Unit test/written examination etc.), Practicals and Tutorials. The details have been specified in each course. Internal Assessment for the course is based on following concurrent evaluation.

**A. Mid Term Assessment(20 marks):**

We conduct internal exam in our college. Midterm Assessment will be based on Short answer.

**B. End Term Assessment(50 marks):**

Term End Examination of I, III and V Semester will be conducted in the month of October and for the semester II, IV, and VI will be conducted in the month of March/April. End Term Assessment will be based on Objective Type Questions, Short Answer Questions etc.

**C. Course Exit Survey(10 Marks):**

In this method, a student is asked to assess himself/herself on his/her understanding or demonstration of the course outcomes. A well designed questionnaire mapping to all the course outcomes is part of the Course exit survey and will be conducted at the end of course.

**D. Continuous Assessment(70 marks):**

Faculty members in the course are granted the freedom to create Continuous Assessment Components, determine marks, and implement them in a way that provides a comprehensive evaluation of students' capabilities in knowledge, skill, and attitude (KSA) dimensions. This evaluation is achieved through the use of diverse assessment tools throughout the semester, ensuring a well-rounded assessment.

- Problem Based Assessment/Practical based Assessment(PBA)-50 marks
- Theory based Assessment/Tutorial Based Assessment(TBA) – 50 marks

In the above table total internal Theory course evaluation of 150 marks will be converted to 25 marks (internal marks i.e.IM). And out of 25 marks students have to score a minimum 40% i.e. 10 marks to pass the internal Examination.

## 2.2 Guidelines to conduct Practical/Mini-Project evaluation for Semester I, Semester II of MCA – 2020 pattern

**2.2.1 Practical:** The timetable for practical assignment submission is created by the course faculty and distributed to the students through recognized means like the notice board or Whatsapp group. Additionally, students are required to take practical exams at the end of semester. The total marks of the practical course will be calculated as follows





CAYM Education Trust's

## SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph: 02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

Attendance	Lab Manual	Program Execution	Viva
10 Marks	20 Marks	20 Marks	25 Marks

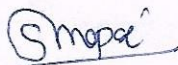
**2.2.2. Mini Project:** Project Co-ordinator prepares the schedule for submission of project, and shares it with students. Students have to do the project submission on time. And at the end of the semester students have to deliver Project Presentation and Viva. The total marks of the mini project will be calculated as follows

Project Report 35 Marks			Viva	Working Demo
UML diagram 10 Marks	cases/validations, screen designs 20 Marks	Project Report 05 Marks	15 Marks	25 Marks

### 2.3 Open Subject, Case Study and Soft Skill (25 Marks each):

The institute establishes the content for case studies, soft skills, and open subjects, making decisions based on industry requirements. Students receive information about the implementation and evaluation methods before the commencement of the respective course.

**Note: This scheme is applicable for MCA 2021-2023 batch**



Exam Controller

Prof. Sujata Albhar



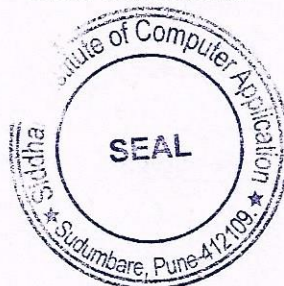
IQAC Co-ordinator

Prof. Sarita Patil



Prof. Nitin Shrirao  
Director

Siddhant Institute of Computer Application  
Sudumbare, Maval, Pune - 412109.





CAYM Education Trust's

## SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph: 02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

### External Examination

#### Overview of External Examination Process:

##### 1. Pre-Examination Phase:

This stage generally involves informing students about the examination fee structure and the schedule for submitting examination application forms in accordance with the university's specified timetable.

After students complete and verify their examination forms, attaching the latest stamp-sized attested photographs, the institutes organize and submit them to the University within the prescribed deadline. The forms are categorized based on the examination, course, and branch.

Upon receiving the examination forms, the university generates hall tickets for end-semester examinations. Students can obtain their hall tickets from the institute.

The institute keeps students informed about the examination timetable, which is received from the University website.

##### 2. Examination Phase:

The College Examination Officer will obtain an OTP from the university and download the designated question paper within the timeframe specified by the university, typically half an hour to one hour before the examinations. Subsequently, the question papers are dispatched to the examination halls.

Invigilators are responsible for distributing the question papers to the candidates during the examination. Candidates then proceed to write their exams on the provided answer sheets at the Examination Centers.

Upon the conclusion of the examination, invigilators collect the answer booklets from all candidates. The institutes organize these answer booklets based on courses, subjects, branches, etc., and forward them to the respective Central Assessment Programme (CAP) center.

##### 3. Post Examination Phase:

All answer sheets gathered at the Central Assessment Program (CAP) undergo masking in adherence to the University Act. Various methods, such as manual coding and barcoding, are employed for this purpose.





CAYM Education Trust's

## SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph: 02114-661992

Email: siddhantical@gmail.com Website: www.siddhantica.in

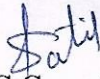
Within the CAP Centers, instructors of the respective courses assess the Answer Booklets and perform moderation according to prescribed norms. The marks on the answer booklets are then tabulated and entered into the results sheets. Concurrently, affiliated colleges furnish internal marks and lab marks to the university. Based on this information, the final results are declared, and documents like mark sheets, grade reports, passing certificates, and provisional degree certificates are issued to the students. The institute distributes the mark sheets to the students.

Any student has the option to apply for verification, photocopying, or reevaluation. Subsequently, the answer sheets undergo verification (retotaling), photocopying, or reevaluation, depending on the specific case.



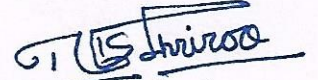
Exam Controller

Prof. Sujata Albhar



IQAC Co-ordinator

Prof. Sarita Patil



Director

Prof. Nitin Shirirao  
Director

Siddhant Institute of Computer Application  
Sudumbare, Maval, Pune - 412109.





CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph: 02114-661992

Email: [siddhantical@gmail.com](mailto:siddhantical@gmail.com) Website: [www.siddhantica.in](http://www.siddhantica.in)

## Student Centric Method

The institute offers a supportive ICT-enabled infrastructure that enhances course delivery, elevates student performance, fosters student engagement, and has a positive impact on the learning experience. It actively promotes student development through a range of student-centered teaching and learning approaches.

### Experiential Learning:

The following experiential learning methods are employed to boost students' creativity and cognitive abilities:

Sr. No.	Details
1	Mini project Work
2	Expert Talk
3	Open Courses
4	Practical Session
5	Training Programs
7	Role Play
8	Student Centric ICT Tools and platforms





CAYM Education Trust's

## SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: siddhantical@gmail.com Website: [www.siddhantica.in](http://www.siddhantica.in)

### Participative Learning

The classroom atmosphere is maintained to be conducive, enabling learners to feel comfortable sharing their ideas and experiences and fostering healthy discussions.

Sr. No.	Details
1	Flipped Classroom
2	Tutorials
3	Case Study

### Problem Solving Methodologies

Students gain and enhance their problem-solving skills through engaging in the following activities:

Sr. No.	Details
1	Mini Project
2	Course tutorials based on Problems
3	Presentations on course topics

Academic Co-ordinator

Prof. Reshma Mavkar

Director

Prof. Nitin Shirao

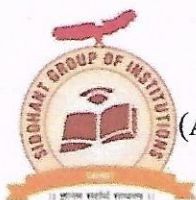
Director

Siddhant Institute of Computer Application

Sudumbare, Maval, Pune - 412109







CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: [siddhantical@gmail.com](mailto:siddhantical@gmail.com) Website: [www.siddhantica.in](http://www.siddhantica.in)

## Steps of attainment of CO- POs (2020 pattern syllabus)

1. Calculate CO attainment for each course of internal assessment
  - i. Consolidated for all Assessment methods (Direct & Indirect)
    1. PBA- Practical Based assessment
    2. TBA- Tutorial base assessment
    3. Mid Term
    4. SPPU Exam
    5. Indirect - Course Exit Survey
  - ii. Refer the below table for attainment level

Criteria	Attainment Level
less than 50% having more than average marks	1
50% or more students having more than average marks	2
60% or more students having more than average marks	3

- iii. Calculate CO attainment for each course of external assessment
2. Distribute these values proportionately (Strong - 3, Medium - 2, Low/Poor - 1) in CO-PO matrix of the respective course.
  3. Calculate final attainment for related PO.
  4. Calculate indirect assessment values based on Alumni Survey, Student Survey and Employer Survey.
  5. Calculate final Attainment value by considering Direct Assessment -80% and Indirect Assessment -20%.

### Evaluation of Course Outcomes:

Method	Tools for Assessment	% Contribution	
Direct (Internal+External)	Internal Exam including Internal Assessment	30	80%
	External Examination	50	
Indirect	Course Exit Survey	20%	





CAYM Education Trust's

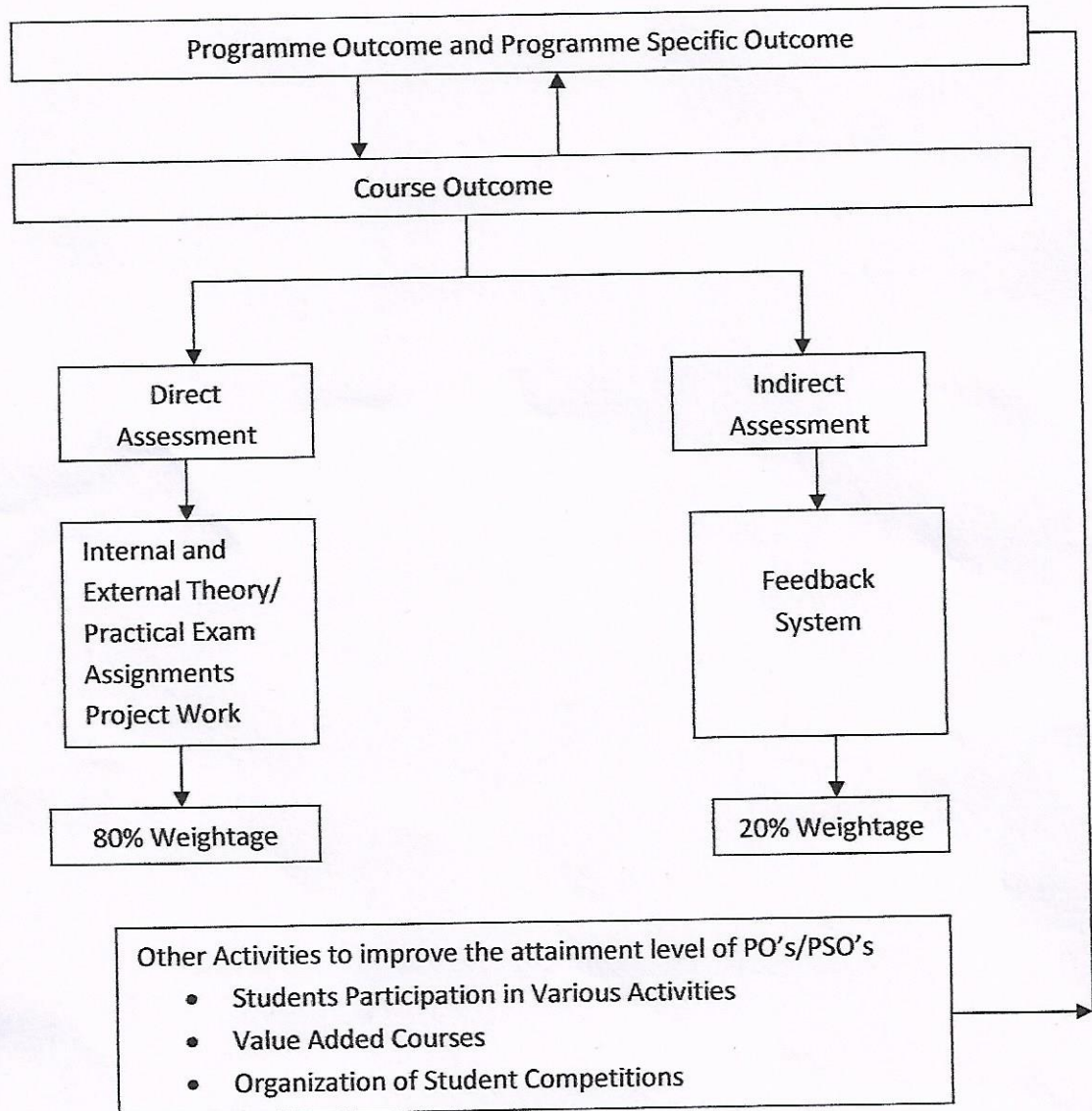
# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: siddhantical@gmail.com Website: [www.siddhantica.in](http://www.siddhantica.in)

## MECHANISM OF COURSE OUTCOME PROGRAMME OUTCOME ATTAINMENT





CAYM Education Trust's

# SIDDHANT INSTITUTE OF COMPUTER APPLICATION

(Approved by AICTE New Delhi, Government of Maharashtra Recognised Savitribai Phule Pune University)

Add: At post-Sudumbare, Tal-Maval, Dist-Pune-412109, Ph:02114-661992

Email: siddhantical@gmail.com Website: [www.siddhantica.in](http://www.siddhantica.in)

## Evaluation of Attainment of Programme Outcomes:

Method	Tools for Assessment	% Contribution
Direct	PO Attainment of all courses(Average)	80%
Indirect	1. Programme Exit Survey 2. Alumni Survey 3. Employer Survey 4. Extracurricular activities	20%

IQAC Coordinator

Prof. Sarita Patil

HOD

Prof. Reshma Mavkar

Director

Prof. Nitin Shirao

Director

Siddhant Institute of Computer Application  
Sudumbare, Maval, Pune - 412109.



# Course Exit Survey(OS)

1. Exam Seat No.

---

2. Student name

---

3. How far student the need of Operating System?

*Mark only one oval.*

- Excellent
- Very Good
- Good
- Satisfactory
- Poor

4. Degree of understanding the usage of different Process scheduling in order to increase the time utilization of CPU.

*Mark only one oval.*

- Excellent
- Very Good
- Good
- Satisfactory
- Poor



5. How far inter-process communication and associated techniques will make use of resources in efficient manner.

*Mark only one oval.*

- Excellent
- Very Good
- Good
- Satisfactory
- Poor

6. Usage of different techniques (Paging, Partitions and Segmentation) for better memory management.

*Mark only one oval.*

- Excellent
- Very Good
- Good
- Satisfactory
- Poor

7. How analyze the effective usage of different input and output devices with deadlock issues.

*Mark only one oval.*

- Excellent
- Very Good
- Good
- Satisfactory
- Poor



8. How we can optimize the usage of file system with access methods and directory structure. Case Study - Linux system.

Mark only one oval.

- Excellent
- Very Good
- Good
- Satisfactory
- Poor

This content is neither created nor endorsed by Google.

Google Forms



A handwritten signature in black ink, appearing to read "S. S. Shrivastava". The signature is written over a horizontal line that has a small upward tick on the right side.

**Director**

**Siddhant Institute of Computer Application**  
Sudumbare, Maval, Pune - 412109.