



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)



B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

Annexure – I

CREDIT FRAMEWORK STRUCTURE

Semester		I	II	III	IV	V	VI	VII	VIII	Total Credits
Basic Science Course	BSC/ESC	09	06	-	-	-	-	-	-	15
Engineering Science Course		07	06	-	-	-	-	-	-	13
Program Core Course (PCC)	Program Courses	01	-	18	14	10	07	10	-	60
Program Elective Course (PEC)		-	-	-	-	03	07	04	04	18
Multidisciplinary Minor (MDM)	Multidisciplinary Courses	-	-	02	03	03	03	03	-	14
Open Elective (OE) Other than a particular program		-	-	-	-	-	-	-	-	0
Vocational and Skill Enhancement Course (VSEC)	Skill Courses	01	-	-	-	04	-	-	-	05
Ability Enhancement Course (AEC -01, AEC-02)	Humanities Social Science and Management (HSSM)	02	02	-	02	-	-	-	-	06
Entrepreneurship/Economics/Management Courses		-	05	-	-	-	-	-	-	05
Indian Knowledge System (IKS)		-	-	-	-	-	-	-	-	-
Value Education Course (VEC)		-	-	-	-	-	-	-	-	-
Research Methodology	Experiential Learning Courses	-	-	-	-	-	-	-	04	04
Comm. Engg. Project (CEP)/ Field Project (FP)		-	-	-	01	-	03	03	-	07
Project		-	-	-	-	-	-	-	-	-
Internship/OJT	Liberal Learning Courses	-	-	-	-	-	-	-	12	12
Co-curricular Courses (CC)		-	01	-	-	-	-	-	-	01
Total Credits (Major)		20	20	20	20	20	20	20	20	160

 Chairman - BoS	 Dean – Academics	July 2026 Date of Release	NEP 4.0 Version	Applicable for 2026-27 Admitted
---	---	------------------------------	--------------------	------------------------------------



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER I

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Sem Examination	Total		
1	BSC	26CB101T	Discrete Mathematics	3	-	-	3	20	20	60	100	45	3
2	BSC	26CB102T	Introductory Topics in Statistics, Probability and Calculus	3	-	-	3	20	20	60	100	45	3
3	BSC	26CB105T	Fundamentals of Physics	2	-	-	2	10	10	30	50	23	1.5
4	BSC	26CB105P	Fundamentals of Physics Lab	-	-	2	1	-	25	25	50	25	-
5	ESC	26CB103T	Fundamentals of Computer Science	3	-	-	3	20	20	60	100	45	3
6	ESC	26CB103P	Fundamentals of Computer Science Lab	-	-	2	1	-	25	25	50	25	-
7	ESC	26CB104T	Principles of Electrical Engineering	2	-	-	2	10	10	30	50	23	1.5
8	ESC	26CB104P	Principles of Electrical Engineering Lab	-	-	2	1	-	25	25	50	25	-
9	PCC	26CB106P	Business Communication and Value Science - I Lab	-	-	2	1	-	25	25	50	25	-
10	VSEC	26CB108P	Python Scripting/Basic Programming Lab	-	-	2	1	-	25	25	50	25	-
11	HSSM	26CB107T	Indian Knowledge System	2	-	-	2	10	10	30	50	23	1.5
Total				15	0	10	20	90	215	395	700	-	-

		July 2026	NEP 4.0	Applicable for 2026-27
Chairman - BoS	Dean – Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER II

Sr. No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Semester Examination	Total		
1	BSC	26CB201T	Linear Algebra	3	-	-	3	20	20	60	100	45	3
2	BSC	26CB202T	Statistical Methods and Modelling	3	-	-	3	20	20	60	100	45	3
3	ESC	26CB203T	Object Oriented Programming	2	-	-	2	10	10	30	50	23	3
4	ESC	26CB203P	Object Oriented Programming Lab	-	-	2	1	-	25	25	50	25	
5	ESC	26CB204T	Principles of Electronics	2	-	-	2	10	10	30	50	23	1.5
6	ESC	26CB204P	Principles of Electronics Lab	-	-	2	1	-	25	25	50	25	
7	HSSM	26CB205T	Fundamentals of Economics	2	-	-	2	10	10	30	50	23	1.5
8	AEC	26CB207T	English Language Course	2	-	-	2	10	10	30	50	23	1.5
9	HSSM (VEC)	26CB206T	Universal Human Values	3	-	-	3	20	20	60	100	45	3
10	CC	26CB208T	Co-curricular Courses (CC)	-	-	2	1	-	50	-	50	25	-
Total				17	0	06	20	100	200	350	650	-	-

		July 2026	NEP 4.0	Applicable for 2026-27
Chairman - BoS	Dean – Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR



(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER III

Sr. No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Semester Examination	Total		
1	PCC	26CB301T	Formal Language and Automata	3	-	-	3	20	20	60	100	45	3
2	PCC	26CB302T	Database Management Systems	3	-	-	3	20	20	60	100	45	3
3	PCC	26CB302P	Database Management Systems Lab	-	-	2	1	-	25	25	50	25	-
4	PCC	26CB303T	Data Structure and Algorithm	3	-	-	3	20	20	60	100	45	3
5	PCC	26CB303P	Data Structure and Algorithm Lab	-	-	2	1	-	25	25	50	25	-
6	PCC	26CB304T	Software Engineering	3	-	-	3	20	20	60	100	45	3
7	PCC	26CB304P	Software Design with UML Lab	-	-	2	1	-	25	25	50	25	-
8	PCC	26CB305T	Fundamental Of Management and Business Strategy	3	-	-	3	20	20	60	100	45	3
9	MDM	26CB331M	Multidisciplinary Minor-I	2	-	-	2	10	10	30	50	23	1.5
Total				17	-	6	20	110	185	405	700	-	-

		July 2026	NEP 4.0	Applicable for 2027-28
Chairman - BoS	Dean – Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER IV

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No. of Hrs for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Sem Examination	Total		
1	PCC	26CB401T	Operating Systems	2	-	-	2	10	10	30	50	23	3
2	PCC	26CB401P	Operating Systems Lab	-	-	2	1	-	25	25	50	25	-
3	PCC	26CB402T	Design and Analysis of Algorithm	3	-	-	3	20	20	60	100	45	3
4	PCC	26CB402P	Design and Analysis of Algorithm Lab	-	-	2	1	-	25	25	50	25	-
5	PCC	26CB405T	Computer Organization	2	-	-	2	10	10	30	50	23	1.5
6	PCC	26CB406P	Business Communication and Value Science-II	-	-	2	1	-	25	25	50	25	-
7	PCC	26CB407T	Computational Statistics	3	-	-	3	20	20	60	100	45	3
8	PCC	26CB407P	Computational Statistics Lab	-	-	2	1	-	25	25	50	25	-
9	MDM	26CB431M	Multidisciplinary Minor -III	3	-	-	3	20	20	60	100	45	3
10	HSSM	26CB403T	Introduction To Innovation, IP Management and Entrepreneurship	2	-	-	2	10	10	30	50	23	1.5
11	CEP	26CB404T	Community Engagement Project with Design Thinking	-	-	2	1	-	25	25	50	25	-
Total				15	-	10	20	90	215	395	700		-

		July 2026	NEP 4.0	Applicable for 2027-28
Chairman - BoS	Dean – Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER V

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Sem Examination	Total		
1	PCC	26CB501T	Computer Network	2	-	-	2	10	10	30	50	23	1.5
2	PCC	26CB501P	Computer Network Lab	-	-	2	1	-	25	25	50	25	-
3	PCC	26CB502T	Machine Learning	3	-	-	3	20	20	60	100	45	3
4	PCC	26CB502P	Machine Learning Lab	-	-	2	1	-	25	25	50	25	-
5	PCC	26CB503T	Finance and Cost Accounting	2	-	-	2	10	10	30	50	23	1.5
6	PCC	26CB505P	Business Communication and Value Science-III	-	-	2	1	-	25	25	50	25	-
7	PEC	26CB506T	Program Elective-I	3	-	-	3	20	20	60	100	45	3
8	MDM	26CB531M	Multidisciplinary Minor -II	3	-	-	3	20	20	60	100	45	3
9	VSEC	26CB504T	Cloud Micro Service and Application	3	-	-	3	20	20	60	100	45	3
10	VSEC	26CB504P	Cloud Micro Service and Application Lab	-	-	2	1	-	25	25	50	25	-
Total				16	-	08	20	100	200	400	700	-	-

26CB506T	Program Elective-I

		July 2026	NEP 4.0	Applicable for 2028-29
Chairman - BoS	Dean - Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER VI

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Sem Examination	Total		
1	PCC	26CB602T	Information Security	3	-		3	20	20	60	100	45	3
2	PCC	26CB602P	Information Security Lab		-	2	1	-	25	25	50	25	-
3	PCC	26CB603T	Operational Research	2	-		2	10	10	30	50	23	1.5
4	PCC	26CB605T	Modern Web Application	-	-	2	1	-	25	25	50	23	-
5	PEC	26CB601T	Program Elective-II	2	-		2	10	10	30	50	23	1.5
6	PEC	26CB601P	Program Elective-II Lab			2	1	-	25	25	50	25	-
7	PEC	26CB604T	Program Elective-III	3			3	20	20	60	100	45	3
8	PEC	26CB604P	Program Elective-III Lab	-	-	2	1	-	25	25	50	25	-
9	MDM	26CB606T	Multidisciplinary Minor - IV	3	-	-	3	20	20	60	100	45	3
10	PRJ	26CB607P	Capstone Project Stage -I	-	-	6	3	-	50	50	100	45	-
Total				13	-	14	20	80	230	390	700	-	-

26CB601T	Program Elective-II

26CB601P	Program Elective-II Lab

26CB604T	Program Elective-III

26CB604P	Program Elective-III Lab

		July 2026	NEP 4.0	Applicable for
--	--	-----------	---------	----------------



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

Chairman - BoS

Dean – Academics

Date of Release

Version

2028-29

SEMESTER VII

Sr No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	No of Hours for ESE
				L	T	P		Mid-Sem Examination	Continual Assessment	End Sem Examination	Total		
1.	PCC	26CB701T	Usability Design of Software Applications	3	-	-	3	20	20	60	100	45	3
2.	PCC	26CB701P	Usability Design of Software Applications Lab	-	-	2	1	-	25	25	50	25	-
3.	PCC	26CB702T	Human Resource Management	2	-	-	2	10	10	30	50	23	1.5
4.	PCC	26CB703T	IT Project Management	3	-	-	3	20	20	60	100	45	45
5.	PCC	26CB703P	IT Project Management Lab	-	-	2	1	-	25	25	50	25	-
6.	PEC	26CB704T	Program Elective-IV	2	-	-	2	10	10	30	50	23	1.5
7.	PEC	26CB705T	Program Elective-V	2	-	-	2	10	10	30	50	23	1.5
8.	MDM	26CB731M	Multidisciplinary Minor-V	3	-	-	3	20	20	60	100	45	3
9.	PRJ	26CB706P	Project-II	-	-	6	3	-	50	50	100	45	-
Total				15		10	20	90	190	370	650	-	-

26CB704T Program Elective-IV

26CB705T Program Elective-V

Chairman - BoS

Dean – Academics

July 2026
Date of Release

NEP 4.0
Version

Applicable for
2029-30



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

SEMESTER VIII

Option A

Sr. No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	Duration of ESE (hrs.)
				L	T	P		Mid Sem Examination	Continual Assessment	End Sem Examination	Total		
1.	PEC	26CB802T	Program Elective – VII [#]	3	-	-	3	20	20	60	100	45	3
2.	PEC	26CB803P	Program Elective – VIII Lab [#]	-	-	2	1	-	25	25	50	25	-
3.	RM	26CB801T	Research Methodology [#]	2	-	-	2	10	10	30	50	23	1.5
4.	RM	26CB801P	Research Methodology Lab [#]	-	-	4	2	-	25	25	50	25	-
5.	OJT	26CB804P(i)	Industry/Research Internship*	-	-	24	12	-	200	200	400	200	-
Total				5	0	30	20	30	380	240	650	-	

Option B

Sr. No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				Minimum Passing Marks	Duration of ESE (hrs.)
				L	T	P		Mid Sem Examination	Continual Assessment	End Sem Examination	Total		
6	PEC	26CB802T	Program Elective – VII [#]	3	-	-	3	20	20	60	100	45	3
7	PEC	26CB802P	Program Elective – VIII Lab [#]	-	-	2	1	-	25	25	50	25	-
8	RM	26CB801T	Research Methodology [#]	2	-	-	2	10	10	30	50	23	1.5
9	RM	26CB801P	Big Data Research Lab	-	-	4	2	-	25	25	50	25	-
10	OJT	26CB803P	Institutional Internship [§] and Project – III	-	-	24	12	-	200	200	400	200	-
Total				5	0	30	20	30	380	240	650	-	

Option B is available to students only after recommendation of the concerned Head of the department. The project and internship should contribute towards career development plan of the students.

[#] Courses to be mapped with NPTEL/SWAYAM/MOOC offered courses in that semester.

* One semester internship in any industry/ Research Institute is to be carried out. [§] One Semester Internship offered by Institute Level Cells such as TPDC/ IEDC / E-Yantra/ Team Ashwa Riders along with project in the Major Discipline assigned by department to be carried out.

		July 2026	NEP 4.0	Applicable for 2029-30
Chairman - BoS	Dean – Academics	Date of Release	Version	



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2026-27

COMPUTER SCIENCE AND BUSINESS SYSTEMS

Program Elective Bucketlist

Semester	Course Category	Course Code	Name of Course
V	PEC	26CB506T(i)	Software testing and Quality assurance
V	PEC	26CB506T(ii)	Cryptology
V	PEC	26CB506T(iii)/ 26CB506P(iii)	Artificial Intelligence + Lab
V	PEC	26CB506T(iv)	Introduction to IoT
V	PEC	26CB506T(v)	Image Processing and Pattern Recognition
VI	PEC	26CB601T(i)/26CB601P(i)	Deep Learning+GenAI/ Cognitive Science & Analytics +Lab
VI	PEC	26CB601T(ii)/26CB601P(ii)	Data Mining and Analytics+Lab
VI	PEC	26CB601T(iii)/26CB601P(iii)	Conversational Systems+Lab
VI	PEC	26CB601T(iv)/26CB601P(iv)	Block Chain+Lab
VI	PEC	26CB604T(i)/26CB604P(i)	Business Strategy +Lab
VI	PEC	26CB604T(ii)/26CB604P(ii)	Industrial Psychology+Lab
VI	PEC	26CB604T(iii)/26CB604P(iii)	Marketing Research & Marketing Management+Lab
VI	PEC	26CB604T(iv)/26CB604P(iv)	Finance Management+Lab
VII	PEC	26CB704T(i)	Advanced Social, Text and Media Analytics
VII	PEC	26CB704T(ii)	Mobile Copmputing
VII	PEC	26CB704T(iii)	Information Retrieval
VII	PEC	26CB705T(i)	Enterprise Systems
VII	PEC	26CB705T(ii)	Quantum Computation & Quantum Information
VII	PEC	26CB705T(iii)	Robotics and Embedded Systems
VII	PEC	26CB705T(iv)	Compiler Design
VIII	PEC	26CB802T(i)/26CB802P(i)	Natural Language Processing +Lab
VIII	PEC	26CB802T(ii)/26CB802P(ii)	GenAI+ Lab