IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

I Semester

For the batch admitted 2024

S No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory										
				Mid Term	Attd	Continuous Assessment	End Term	End Term	Continuous Assessment		L	T	P	Total Credits
1	HIN 121	AEC	Hindi Language	25	5	10	60	-	-	100	2	-	-	2
2	ENG 122	AEC	English Language	25	5	10	60	-	-	100	2	-	-	2
3	MAT 123	SEC	Algebra Vector Analysis & Geometry	25	5	10	60	-	-	100	3	1	-	4
4	BCS 124	DC	Fundamental of Computer Applications	25	5	10	60	-	-	100	4	-	-	4
5	PHY 125	GEC	Mathematical Physics & Mechanics	25	5	10	60	-	-	100	4	-	-	4
6	BCS 124[P]	DC	Fundamental of Computer Applications Lab	-	-	-	-	30	20	50	-	-	4	2
7	PHY 125[P]	GEC	Mathematical Physics & Mechanics Lab	-	-	-	-	30	20	50	-	-	4	2
Total				**125**	**25**	**50**	**300**	**60**	**40**	**600**	**15**	**1**	**8**	**20**

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

II Semester

For the batch admitted 2024

S No	Course Code	Category	Course Name	Maximum Marks Allocated						Tot.	Contact Hours per Week			
				Theory			End Term	Practical Max			L	T	P	Total Credits
				Mid Term	Attd	Continuous Assessment		End Term	Continuous Assessment					
1	BCS 221	DC	Software Engineering	25	5	10	60	30	20	150	4	-	2	5
2	BCS 222	GEC	Data Analysis and Visualization through Spreadsheet	25	5	10	60	30	20	150	3	-	2	4
3	END 223	AEC	Personality Development	25	5	10	60	-	-	100	2	-	-	2
4	BCS 223	DC	Problem Solving and Programming with C & C++	25	5	10	60	30	20	150	3	1	4	6
5	MAT 221	SEC	Differentiate Equations & Vector Calculus	25	5	10	60	-	-	100	3	1	-	4
6	BCS 224	VAC	Skill Based Course - 1	Skill based course need to be completed through any MOOCs platform and submit the certificate before the start of exam.										2
Total				**125**	**25**	**50**	**300**	**90**	**60**	**650**	**15**	**2**	**8**	**23**

IES UNIVERSITY BHOPAL

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

III Semester

For the batch admitted 2024

S No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Ma		Total	Contact Hours per Week			
				Theory			End Term	End Term	Continuous Assessment		L	T	P	Total Credit
				Mid Term	Attd.	Continuous Assessment								
1	BCS 321	DC	Object Oriented Programming with c++	25	5	10	60	30	20	150	4	-	2	5
2	PHY 322	GEC	Semiconductor Physics	25	5	10	60	30	20	150	3	1	2	5
3	BCS 322	DC	Python Programming	25	5	10	60	30	20	150	2	-	4	4
4	BCS 323	DC	Data Communication	25	5	10	60	30	20	150	4	-	2	5
5	BCS 324	DC	Operating System	25	5	10	60	-	-	100	3	-	-	3
6	BCS 325	SEC	Office Automation Tools & Packages	-	-	-	-	30	20	50	-	2	2	2
7	BCS 326	VAC	Skill based Course-II	Skill based course need to be completed through any MOOCs platform and submit the certificate before the start of exam.										2
	Total			125	25	50	300	150	100	750	16	3	12	26

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

IV Semester

For the batch admitted 2024

S No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory			End Term				L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment		End Term	Continuous Assessment					
1	BCS 421	DC	Data Base Management System	25	5	10	60	30	20	150	3	-	2	4
2	BCS 422	DC	Data Analysis through Python	25	5	10	60	30	20	150	3	-	2	4
3	BCS 423	DC	Computer Network & Information Security	25	5	10	60	-	-	100	3	1	-	4
4	BCS 423	DC	Java Programming	25	5	10	60	30	20	150	3	-	2	4
5	BCS 424	SEC	Web & E commerce Technologies	25	5	10	60	-	-	100	3	-	-	3
6	BCS 425	VAC	Skill based Course-III	Skill based course need to be completed through any MOOCs platform and submit the certificate before the start of exam.										2
Total				**125**	**25**	**50**	**300**	**90**	**60**	**650**	**15**	**1**	**6**	**21**

IES UNIVERSITY BHOPAL

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

V Semester

For the batch admitted 2024

S No	Course Code	Category	Course Name	Maximum Marks Allocated						Total	Contact Hours per Week			
				Theory			End Term	Practical Max			L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment		End Term	Continuous Assessment					
1	BCS 521	DC	Data Structure	25	5	10	60	30	20	150	4	-	2	5
2	BCS 522	DSE	Discipline Specific Elective-I	25	5	10	60	-	-	100	3	-	-	3
3	BCS 523	SEC	Computer Graphics & Multimedia	25	5	10	60	30	20	150	4	-	2	5
4	BCS 524	DC	Minor Project	-	-	-	-	50	50	100	-	-	4	2
5	BCS 525	DC	Internship	2 Weeks Internship				50	50	100	-	-	6	3
Total				**75**	**15**	**30**	**180**	**160**	**140**	**600**	**11**	**-**	**14**	**18**

Departmental Specific Electives-I: BCS 522 (Specialization Baskets)

Data Science	Network Security	Graphics & Visualization	Software Engg
Soft Computing- BCS 522A	Network Security-BCS 522A	Digital Image Processing BCS 522A	Software Designing –BCS 522 A
Data ware housing and Data mining- BCS 522 C	Scalable & Cloud Computing –BCS 522 B	Computer Vision BCS 522 B	Software Testing- BCS 522 B

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

VI Semester

For the batch admitted 2024

No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max.		Total	Contact Hours per Week			
				Theory			End Term				L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment		End Term	Continuous Assessment					
1	BCS 621	DC	Advanced Python Programming	25	5	10	60	30	20	150	2	-	4	4
2	BCS 622	DSE II	Discipline Specific Elective-IV	25	5	10	60	-	-	100	3	1	-	4
3	BCS 623	SEC	Artificial Intelligence	25	5	10	60	-	-	100	3	1	-	4
4	BCS 624	DC	Major Project	-	-	-	-	100	50	150	-	-	8	4
Total				**75**	**15**	**30**	**180**	**130**	**70**	**500**	**8**	**2**	**12**	**16**

Departmental Electives-II: BCS 622 (Specialization Baskets)			
Data Science	**Software Engineering**	**Graphics & Visualization**	**Software Engineering**
Deep Learning BCS 622 A	Ad Hoc Wireless Network BCS 622 A	Computer Animation BCS 622 A	Software Quality & Reliability BCS 622 A
Optimization Technique BCS 622 B	Cyber Security BCS 622 B	Cloud Computing BCS 622 B	Software Program Management BCS 622 B

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

VII Semester

For the batch admitted 20230

No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory			End Term				L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment		End Term	Continuous Assessment					
1	BCS 721	SEC	Research Methodology	25	5	10	60	-	-	100	3	1	-	4
2	BCS 722	DSE	Discipline Specific Elective III	25	5	10	60	-	-	100	4	-	-	4
3	BCS 723	DC	Machine Learning	25	5	10	60	30	20	150	3	-	2	4
4	BCS 724	DC	Research Project Phase I/Dissertation	-	-	-	-	50	50	100	-	-	12	6
Total				**75**	**15**	**30**	**180**	**80**	**70**	**450**	**10**	**1**	**14**	**18**

Discipline Specific Elective III BCS 722			
Data Science	**Network Security**	**Graphics & Visualization**	**Software Engg**
BCS 723(A) Big Data	BCS 723(A) Deep & Reinforcement Learning	BCS 723(A) Computational Intelligence	BCS 723 (A) Agile Software Development
BCS 723(B) Machine Learning	BCS 723(B) Cryptography Information Security	BCS 723(B) Design Thinking	BCS 723 (B) Computer Vision

IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Computer Science)

W.E.F JULY 2024

VIII Semester

S. No.	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory							L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment	End Term	End Term	Continuous Assessment					
1	BCS 821	Research	Advance Research Methodology	25	5	10	60	-	-	100	3	1	-	4
2	BCS 822	DSE	Discipline Specific Elective-IV	25	5	10	60	-	-	100	3	1	-	4
3	BCS 823	DC	Research Project Phase 2/ Dissertation	-	-	-	-	100	100	200	-	-	20	10
4	BCS 824	DC	Computer Vision & Ethics	25	5	10	60	30	20	150	3	-	2	4
Total				**75**	**15**	**30**	**180**	**130**	**120**	**550**	**9**	**2**	**22**	**22**

	Departmental Electives-IV: BCS 821 (Specialization Baskets)		
Data Science	**Network Security**	**Graphics & Visualization**	**Software Engg**
BCS 822(A) Optimization Techniques in Machine Learning	BCS 822(A) Applied Cryptography	BCS 822 (A) Advance Computer Architecture	BCS 822 (A) Simulation and Modeling
BCS 822 (B) Natural Language Processing	BCS 821(B) Wireless sensor network	BCS 822 (B) Modern web	BCS 822 (B) Augmented and Virtual Reality