



BRAINWARE UNIVERSITY
SCHOOL OF COMPUTATIONAL & APPLIED SCIENCES
DEPARTMENT OF CYBER SCIENCE & TECHNOLOGY
BACHELOR OF SCIENCE in ADVANCED NETWORKING & CYBER SECURITY/
BACHELOR OF SCIENCE (HONOURS) in ADVANCED NETWORKING & CYBER SECURITY - 2023

SEMESTER-I

Sl. No	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC10101	Computer Networks	4	0	0	40	60	100	4	Major
2	BNC19102	PC Maintenance Lab	0	0	4	40	60	100	2	Major
3	BNC19103	Computer Networks Lab	0	0	4	40	60	100	2	Major
4	BNC10001	Fundamentals of Electronics	3	0	0	40	60	100	3	IC
5	AEC00005	Functional English	2	0	0	40	60	100	2	AEC
6	BNC10002	Soft Skills	3	0	0	40	60	100	3	SEC
7	VAC00006	Environmental Studies	2	0	0	40	60	100	2	VAC
8	VAC00004	Computer Peripherals and OS	2	0	0	40	60	100	2	VAC
TOTAL			16	0	8	320	480	800	20	

SEMESTER – II

Sl. No	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC20104	Linux Administration	4	0	0	40	60	100	4	Major
2	BNC29105	Linux Administration Lab	0	0	4	40	60	100	2	Major
3	BNC29106	Cyber Security Lab	0	0	4	40	60	100	2	Major
4	BNC20001	Communication Fundamentals	3	0	0	40	60	100	3	IC
5	AEC00002	Communicative English	2	0	0	40	60	100	2	AEC
6	BNC20002	Principles of Programming Language	3	0	0	40	60	100	3	SEC
7	VAC00013	Security Overview	2	0	0	40	60	100	2	VAC
8	VAC00007	Human Values and Ethics	2	0	0	40	60	100	2	VAC
TOTAL			16	0	8	320	480	800	20	



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SEMESTER – III

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC37107	Switching and Routing	2	0	4	40	60	100	4	Major
2	BNC37108	Vulnerability Analysis and Penetration Testing	2	0	4	40	60	100	4	Major
3	BNC30109	Information Security Management	4	0	0	40	60	100	4	Major
4	BNC30001	Vedic Mathematics	3	0	0	40	60	100	3	IC
5	AEC00006	Modern Indian Language A. Hindi B. Bengali C. Alternative English	2	0	0	40	60	100	2	AEC
6	BNC30002	IT Infrastructure Service Management and Entrepreneurship	3	0	0	40	60	100	3	SEC
TOTAL			16	0	8	240	360	600	20	

SEMESTER – IV

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC40110	Windows Server Administration	3	0	0	40	60	100	3	Major
2	BNC49111	Windows Server Administration Lab	0	0	4	40	60	100	2	Major
3	BNC40112	Web Application Penetration Testing	3	0	0	40	60	100	3	Major
4	BNC49113	Web Application Penetration Testing Lab	0	0	4	40	60	100	2	Major
5	BNC47201	Database Management System	3	0	2	40	60	100	4	Minor
6	BNC40202	Sustainability in Indian Knowledge System	4	0	0	40	60	100	4	Minor
7	AEC09001	Communicative English Lab	0	0	4	40	60	100	2	AEC
TOTAL			13	0	14	280	420	700	20	



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SEMESTER – V

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC50114	Security Specialist	3	0	0	40	60	100	3	Major
2	BNC59115	Security Specialist Lab	0	0	4	40	60	100	2	Major
3	BNC50116	Linux Network Service Management	3	0	0	40	60	100	3	Major
4	BNC59117	Linux Network Service Management Lab	0	0	4	40	60	100	2	Major
5	BNC50203	Blockchain and Crypto Currency	4	0	0	40	60	100	4	Minor
6	BNC50204	Digital Watermarking and Steganography	4	0	0	40	60	100	4	Minor
7	BNC58001	Project	0	0	0	40	60	100	2	IAPC
TOTAL			14	0	8	280	420	700	20	

SEMESTER – VI

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC60118	Windows Server Management	4	0	0	40	60	100	4	Major
2	BNC69119	Windows Server Management Lab	0	0	4	40	60	100	2	Major
3	BNC60120	Security Operations Center Management	4	0	0	40	60	100	4	Major
4	BNC69121	Security Operations Center Management Lab	0	0	4	40	60	100	2	Major
5	BNC60205	Artificial Intelligence and Machine Learning	4	0	0	40	60	100	4	Minor
6	BNC60206	Cryptography and Network Security	4	0	0	40	60	100	4	Minor
TOTAL			16	0	8	240	360	600	20	



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SEMESTER – VII (Honours)

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC70122	Security Audit and Compliances	4	0	0	40	60	100	4	Major
2	BNC70123	Cloud Security	4	0	0	40	60	100	4	Major
3	BNC79124	Cloud Security Lab	0	0	4	40	60	100	2	Major
4	BNC70125	Digital Forensics	4	0	0	40	60	100	4	Major
5	BNC79126	Digital Forensics Lab	0	0	4	40	60	100	2	Major
6	BNC70207	IoT Security	4	0	0	40	60	100	4	Minor
TOTAL			16	0	8	240	360	600	20	

SEMESTER – VIII (Honours)

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIE	ESE			
1	BNC80127H	Data Security and Analytics	4	0	0	40	60	100	4	Major
2	BNC80128H	Artificial Intelligence in Cyber Security	4	0	0	40	60	100	4	Major
3	BNC89129H	Artificial Intelligence in Cyber Security Lab	0	0	4	40	60	100	2	Major
4	BNC80130H	Virtualization Technology Associate	4	0	0	40	60	100	4	Major
5	BNC89131H	Virtualization Technology Associate Lab	0	0	4	40	60	100	2	Major
6	BNC80208H	Cyber Security Law and IPR	4	0	0	40	60	100	4	Minor
TOTAL			16	0	8	240	360	600	20	