



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 - 2024

SEMESTER-I

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC17101	Computer Networks	3	0	2	40	60	100	4	Major
2	BNC17201	Database Management System	3	0	2	40	60	100	4	Minor
3	BNC10001	Fundamentals of Electronics	3	0	0	40	60	100	3	IC
4	AEC00005	Functional English	2	0	0	40	60	100	2	AEC
5	BNC10002	Soft Skills	3	0	0	40	60	100	3	SEC
6	VAC00006	Environmental Studies	2	0	0	40	60	100	2	VAC
7	VAC09008	Computer Peripherals and Maintenance Lab	0	0	4	40	60	100	2	VAC
TOTAL			16	0	8	280	420	700	20	

SEMESTER – II

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC27102	Linux Administration	2	0	4	40	60	100	4	Major
2	BNC20202	Sustainability in Indian Knowledge System	4	0	0	40	60	100	4	Minor
3	BNC20001	Communication Fundamentals	3	0	0	40	60	100	3	IC
4	AEC00002	Communicative English	2	0	0	40	60	100	2	AEC
5	BNC27002	Cyber Security Essentials	2	0	2	40	60	100	3	SEC
6	VAC09009	Python Programming Lab	0	0	4	40	60	100	2	VAC
7	VAC00007	Human Values and Ethics	2	0	0	40	60	100	2	VAC
TOTAL			15	0	10	280	420	700	20	

SEMESTER – III

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC37103	Switching and Routing	2	0	4	40	60	100	4	Major
2	BNC37104	Vulnerability Analysis and Penetration Testing	2	0	4	40	60	100	4	Major
3	BNC30203	Artificial Intelligence and Machine Learning	4	0	0	40	60	100	4	Minor
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	



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SEMESTER – IV

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC40105	Windows Server Administration	3	0	0	40	60	100	3	Major
2	BNC49106	Windows Server Administration Lab	0	0	4	40	60	100	2	Major
3	BNC40107	Web Application Penetration Testing	3	0	0	40	60	100	3	Major
4	BNC49108	Web Application Penetration Testing Lab	0	0	4	40	60	100	2	Major
5	BNC40109	Threat Modelling	4	0	0	40	60	100	4	Major
6	BNC40204	Blockchain and Cryptocurrency	4	0	0	40	60	100	4	Minor
7	AEC09001	Communicative English Lab	0	0	4	40	60	100	2	AEC
TOTAL			14	0	12	280	420	700	20	

SEMESTER – V

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC50110	Network Security Essentials	3	0	0	40	60	100	3	Major
2	BNC59111	Network Security Essentials Lab	0	0	4	40	60	100	2	Major
3	BNC50112	Linux Network Service Management	3	0	0	40	60	100	3	Major
4	BNC59113	Linux Network Service Management Lab	0	0	4	40	60	100	2	Major
5	BNC57114	Network Penetration Testing	2	0	4	40	60	100	4	Major
6	BNC50205	Digital Watermarking and Steganography	4	0	0	40	60	100	4	Minor
7	BNC58001	Project	0	0	0	40	60	100	2	IAPC
TOTAL			12	0	12	280	420	700	20	

SEMESTER – VI

Sl. No.	Course Code	Course	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	ESE			
1	BNC60115	Windows Server Management	4	0	0	40	60	100	4	Major
2	BNC69116	Windows Server Management Lab	0	0	4	40	60	100	2	Major
3	BNC60117	Security Operations Center Management	4	0	0	40	60	100	4	Major
4	BNC69118	Security Operations Center Management Lab	0	0	4	40	60	100	2	Major
5	BNC60119	Information Security Management	4	0	0	40	60	100	4	Major
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
						CIA	ESE			
1	BNC70120	Security Audit and Compliances	4	0	0	40	60	100	4	Major
2	BNC70121	Cloud Security	4	0	0	40	60	100	4	Major
3	BNC79122	Cloud Security Lab	0	0	4	40	60	100	2	Major
4	BNC70123	Digital Forensics	4	0	0	40	60	100	4	Major
5	BNC79124	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
						CIA	ESE			
1	BNC80125H	Data Security and Analytics	4	0	0	40	60	100	4	Major
2	BNC80126H	Artificial Intelligence in Cyber Security	4	0	0	40	60	100	4	Major
3	BNC89127H	Artificial Intelligence in Cyber Security Lab	0	0	4	40	60	100	2	Major
4	BNC80128H	Virtualization Technology	4	0	0	40	60	100	4	Major
5	BNC89129H	Virtualization Technology 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	