

BCA PART VI Semester Academic Year: 2021-2022
Course of studies for the BCA – VI Semester

BCA – VI Semester Course

SCHEME OF MARKS

Course	Theory Max. Marks		Practical Max. Marks	Max. Marks	Min. Marks
	Internal	External			
BCA – 601 Operations Research	15	85	--	100	5 + 28
BCA -602 Internet and Web Technology using PHP	15	85	--	100	5 + 28
BCA -603 Computer Graphics and Multimedia	15	85	--	100	5 + 28
BCA -604 Principal and Practices of Management	15	85	--	100	5 + 28
BCA -605 Project	40	60		100	33
BCA -606 Computer Graphics and Multimedia LAB	--	--	50	50	17
BCA -607 Practical on Internet and Web Technology using PHP	--	---	50	50	17
Total Marks	100	400	100	600	--

Government Autonomous Girls PG College of Excellence, Sagar

Name of Department Botany

Syllabus Session 2021-22

Programme : M.Sc. Botany

Class : M.Sc. IV Sem.

Sn.No	Paper	Course Title	Course Code	Credits	CCE	CCE	External	External	total	Total
					(Max)	(Minimum)	Assessment	Assessment	Max	Mini
							Max.	mini		
1	Core 1	Plant Cell, Tissue & Organ Culture	BO41	4	25	9	75	26	100	35
2	Core 2	Biotechnology & Genetic Engineering	BO42	4	25	9	75	26	100	35
3	Core 3	Paper III-A Elective 3: Plant Pathology	BO43-I	4	25	9	75	26	100	35
		Paper III-B Elective 3: Plants & Society	BO43-II							
4	Core 4	Paper IV-A Elective 4: Industrial Microbiology	BO44-I	4	25	9	75	26	100	35
		Paper IV-B Elective 4: Pollution Ecology	BO44-II							
		* Project / Applied Botany							100	35
5	Practical 1	Practical based on Theory paper 1 & 2)		3			75		75	26
6	Practical 2	Practical based on Theory paper 3 & 4		3			75		75	26
7	Internship						50	50	100	9
				24	100		500		600	

Government Autonomous Girls PG College of Excellence, Sagar
Department of Botany
Programme Name: B.Sc. (Botany Major)

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty		(As per	Any Faculty	Skill Enhancement Vocational Course	Ability Enhancement Course (AEC)	Field Project / Internship / Apprenticeship / # Inter / Intra Faculty	Credits	Qualification Title (Credit Requirement)
		Subject I		Subject II	Subject III					
		Core	DSE	Minor	Generic Elective					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)		1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits) + (4 Credits)					1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(160) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)				1 Field Project / Internship / Apprenticeship (10 Credits)	6+4+10=20	
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	

Government Autonomous Girls PG College of Excellence, Sagar
Department of Chemistry
Programme Name: B.Sc. (Chemistry Major)

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty		(As per	Any Faculty	Skill Enhancement Vocational Course	Ability Enhancement Course (AEC)	Field Project / Internship / Apprenticeship / # Inter / Intra Faculty	Credits	Qualification Title (Credit Requirement)
		Subject I		Subject II	Subject III					
		Core	DSE	Minor	Generic Elective					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)		1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits) + (4 Credits)					1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(160) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)				1 Field Project / Internship / Apprenticeship (10 Credits)	6+4+10=20	
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	

Government Autonomous Girls PG College of Excellence, Sagar

Department of Chemistry

M.Sc. IV semester

Syllabus Session 2021-2022

S.No	Paper	Course Title	Course Code	Credits	CCE (max)	CCE (min)	External Assessment Max	External Assessment Min	Total Max	Total Min
01	Core 12	Application of Spectroscopy-II	CH-41	4	25	9	75	26	100	35
02	Core 13	Solid State	CH-42	4	25	9	75	26	100	35
03	Core 14	Biochemistry	CH-43	4	25	9	75	26	100	35
04	Elective-I	Applied Analytical Chemistry	CH-44-A	4	25	9	75	26	100	35
	Elective-II	Medicinal Chemistry	CH-34-B							
	Elective-III	Organic Synthesis	CH-34-C							
	Elective-IV	Electrochemistry	CH-44-D							
	Elective-V	Chem-informatics	CH-44-E							
05	Practical-10	Inorganic Chemistry		2			50		50	17
06	Practical 11	Organic Chemistry		2			50		50	17
07	Practical 12	Physical Chemistry		2			50		50	17
08	Internship			4						
				26	125		525		650	

DEPARTMENT OF COMPUTER SCIENCE

M.Sc. Computer Science

Academic Year 2021-2022

Computer Science Department

Syllabus Session 2021-22

Programme: **M.Sc. Computer Science**

Class :M.Sc. IV Sem.

No	Paper	Course Title	Course Code	Credits	CCE (Max)	CCE (Min.)	External Assessment Max.	External Assessment Min.	Total Max.	Total Min.
1	Core 11	System Analysis And Design	CS41	4	25	9	75	26	100	35
2	Core 12	Design and Analysis of Algorithms	CS42	4	25	9	75	26	100	35
	Elective 3/1	Internets and Web Technology	CS43 – A	4	25	9	75	26	100	35
	Elective 3/2	Computer Graphics & Multimedia	CS43 – B							
4	Elective 4/1	Compiler Design	CS44- A	4	25	9	75	26	100	35
	Elective 4/2	Python for Data Science	CS 44- B							
5	Practical 7	Practical based on Theory paper 11 & 12		3			75			26
5	Practical 8	Practical based on Theory Paper 3 & 4 (Elective)		3			75			26
6	Internship			4						
				26	100		500		600	

Government Autonomous Girls PG College of Excellence, Sagar
Department of Computer Science
Programme Name: B.Sc. (Computer Science Major)

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty		(As per	Any Faculty	Skill Enhancement Vocational Course	Ability Enhancement Course (AEC)	Field Project / Internship / Apprenticeship / # Inter / Intra Faculty	Credits	Qualification Title (Credit Requirement)
		Subject I	Subject II	Subject III						
		Major		Minor	Generic Elective					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)		1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits) + (4 Credits)					1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(160) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)				1 Field Project / Internship / Apprenticeship (10 Credits)	6+4+10=20	
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	

Government Autonomous Girls PG College of Excellence, Sagar
Department of Economics
Programme Name: B.Sc. (Economics Major)

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty		(As per	Any Faculty	Skill Enhancement Vocational Course	Ability Enhancement Course (AEC)	Field Project / Internship / Apprenticeship / # Inter / Intra Faculty	Credits	Qualification Title (Credit Requirement)
		Subject I		Subject II	Subject III					
		Core	DSE	Minor	Generic Elective					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)		1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits) + (4 Credits)					1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(160) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)				1 Field Project / Internship / Apprenticeship (10 Credits)	6+4+10=20	
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	

Government Autonomous Girls PG College of Excellence, Sagar

DEPARTMENT OF PHYSICS

SYLLABUS 2021-22

Scheme

Class :M.Sc IV Semester

Programme :M.Sc. PHYSICS

S. No	Paper	Course Title	Course Code	Credits	CCE (Max)	CCE (Minimum)	External Assessment Max.	External Assessment mini	total Max	Total Mini
1	Core 13	Condensed Matter Physics-II	PH 41	4	25	9	75	26	100	35
2	Core 14	Laser Physics	PH 42	4	25	9	75	26	100	35
3	Elective 1	Computer Programming and Informatics	PH 43 A	4	25	9	75	26	100	35
	Elective 2	Computational Methods and Programming	PH 43B							
4	Elective 3	Communication Electronics	PH 44 A	4	25	9	75	26	100	35
	Elective 4	Renewable Energy Resources	PH 44B							
6	Practical-7	General Physics	PH 45	3			75		75	26
7	Practical-8	Electronics Physics	PH 46A	3			75		75	26
		Renewable Energy Resources	PH 46 B							
8	Internship/Project		PH 47	4						
Total				26	125		525		650	

Note : Paper 3: Choice Elective 1 Or Elective 2

Paper 4: : Choice Elective 3 Or Elective 4, Practical 8 Choice : If Elective 3 PH44A then PH46A, Practical 8 Choice : If Elective 4 PH44 B then PH46 B

Government Autonomous Girls PG College of Excellence, Sagar

Department of Physics

Programme Name: **B.Sc. (Physics Major)**

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty (As per prerequisite)			Any Faculty Subject III	Skill Enhancement Vocational Course	Ability Enhancement Course (AEC)	Field Project / Internship / Apprenticeship / # Inter / Intra Faculty	Credits	Qualification Title (Credit Requirement)
		Major		Subject II Minor						
		Core	DSE		Generic Elective					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)			
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)				
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)	1 Field Project / Internship / Apprenticeship (6 Credits)		6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits)+ (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)			
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)			1 Field Project / Internship / Apprenticeship (6 Credits)		6+4+4+6=20	(150) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)			1 Field Project / Internship / Apprenticeship (10 Credits)			
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	

Government Autonomous Girls PG College of Excellence, Sagar

Name of Department - Zoology

Syllabus Session 2021 -22

Programme : M.Sc. (Subject) Zoology

Class : M.Sc. IV Sem.

Sr. No	Paper	Course Title	Course Code	Credits	CCE (Max)	CCE (Minimum)	External Assessment Max.	External Assessment mini	Total Max	Total Mini
1	Core 11	ANIMAL BEHAVIOUR AND NEUROPHYSIOLOGY	ZO41	4	25	9	75	26	100	35
2	Core 12	Gamete Biology, Development and Differentiation	ZO42	4	25	9	75	26	100	35
3	Elective 3/1	Ichthyology (Fish Structure and Functions)	ZO43A	4	25	9	75	26	100	35
	Elective 3/2	Biology of Parasites	ZO43B							
4	Elective 4/1	Pisci Culture and Economic Importance of Fishes	ZO44A	4	25	9	75	26	100	35
	Elective 4/2	Cell Biology	ZO44B							
5	Practical - 7	Based on Theory Paper IVX & XV	PRZO41	3			75		75	26
6	Practical - 8	Based on Theory Paper XVI & XVII	PRZO42	3			75		75	26
7	Internship			4						
				26	125		525		650	

Government Autonomous Girls PG College of Excellence, Sagar

Department of Zoology

Programme Name: **B.Sc. (Zoology Major)**

Structure for Undergraduate Programme (Ordinance 14(A) NEP 2020): UGC CBCS System for Govt. Holkar (Model Autonomous) Science College, Indore

Level	Semester	Main Faculty		(As per	Any Faculty	Skill	Ability	Field Project / Internship /	Credits	Qualification Title (Credit Requirement)
		Subject I		Subject II	Subject III	Enhancement	Enhancement	Apprenticeship /		
		Major		Minor	Generic	Vocational	Course (AEC)	# Inter / Intra Faculty		
		Core	DSE	Elective	Course					
Level 5	1	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	(40) Undergraduate Certificate in Main Faculty
	2	1 (6 Credits)		1 (6Credits)	1 (4 Credits)		1 (4 Credits)		6+6+4+4=20	
Level 6	3	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	(80) Undergraduate Diploma in Main Faculty
	4	1 (6 Credits)		1 (6Credits)	1 (4 Credits)	1 (4 Credits)			6+6+4+4=20	
Level 7	5	1 (6 Credits)	1 (4 Credits)			1 (4 Credits)		1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(120) Bachelor Degree in Main Faculty
	6	1 (6 Credits)	2 (4 Credits) + (4 Credits)					1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	
Level 8	7	1 (6 Credits)	1 (4 Credits)	1 Research Methodology (4 Credits)				1 Field Project / Internship / Apprenticeship (6 Credits)	6+4+4+6=20	(160) Bachelor Degree (Honours) in Main Faculty Bachelor Degree (Research) in Main Faculty
	8	1 (6 Credits)		1 (4 Credits)				1 Field Project / Internship / Apprenticeship (10 Credits)	6+4+10=20	
Total		48 Credits	16 Credits	32 Credits	16 Credits	12 Credits	08 Credits	28 Credits	160 Credits	