

J.J. COLLEGE OF ARTS AND SCIENCE, (AUTONOMOUS)

PG and Research Department of Biotechnology

BRIDGE COURSE SYLLABUS (2022-2023)

UNIT 1

Introduction about the college and the department of Biotechnology, Bridging the gap between School and College education, Difference between Semester and non- semester patterns.

UNIT 2

University –Bharathidasan University- relevant to courses and exams, Syllabus of the course (B.Sc. Biotechnology), Major subject - Allied subjects - Part I, Part II, Part III and part IV.

UNIT 3

CBCS system-Introduction and Benefits, Credit - Importance/ Advantages - How credits can be earned, Elective and other courses - SBE, MBE, NME, EVS, Gender studies and Value education, Semester Exam-Internal, External - Exam pattern, Model QP, Class attendance - Percentage – Condonation.

UNIT 4

NAAC,UGC, Autonomous, Deemed university, Research and Job Opportunities.

UNIT 5

General discipline-Manners-Morals, Behaviours, Respect to the Elders and Teachers, Role of students in college and society, Extracurricular activities- Cum-Skill development.


HEAD OF THE DEPARTMENT

Dr.G.MANIGANDAN Ph.D.,SET,NET
Assistant Professor and Head
PG & Research Department of Biotechnology
J.J. College of Arts and Science (Autonomous)
Pudukkottai - 622 422




PRINCIPAL
Dr.J.PARASURAMAN, M.A.,M.B.A.,M.C.A.,
M.Phil.,B.Ed.,Ph.D.
PRINCIPAL
J.J. College of Arts and Science (Autonomous)
J.J. Nagar, Sivapuram Post,
PUDUKKOTTAI - 622 422.

JJ COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)
PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

BRIDGE COURSE
Academic Year 2022-2023
Attendance Sheet

S.NO	NAME OF THE STUDENTS	11.08.22	12.08.22	16.08.22	17.08.22	18.08.22	22.08.22	23.08.22
1.	S. Aarthi	P	P	P	P	P	P	P
2.	C. Abinayashree	P	P	P	P	P	P	P
3.	K. Abisri	P	P	P	P	P	P	P
4.	V. Alamelumangai	P	P	P	P	P	P	P
5.	R. Anjali	P	P	P	A	P	P	P
6.	P. Bhavani	P	P	P	P	P	P	P
7.	R. Bhuvaneswari	P	P	P	P	P	P	P
8.	V. Bhuvaneswari	P	P	P	P	P	P	P
9.	P. Deepika	P	P	P	P	P	P	P
10.	D. Devatharshini	P	P	A	P	P	P	P
11.	C. Dhanalakshmi	P	P	P	P	P	P	P
12.	C. Hemapriya	P	P	P	P	P	A	P
13.	R. Jenifer	P	P	P	P	P	P	P
14.	A. Jesima	P	P	P	P	P	P	P
15.	K. Kaleeswari	P	P	P	P	P	P	P
16.	V. Karthika	P	P	P	P	P	P	P
17.	S. Krishnaveni	P	P	P	P	P	P	P
18.	S. Krishnaveni	P	P	P	P	P	P	P
19.	Lathiba Begam	P	P	P	P	P	P	P
20.	R. Lisha	A	P	P	P	P	P	P
21.	M. Muthumaga lakshmi	P	P	P	P	P	P	P
22.	A. Nagadhivya	A	P	P	P	P	P	P
23.	S. Pratheepa	A	P	P	P	P	P	P
24.	L. Priyadharshini	P	P	P	P	P	P	P
25.	P. Priyanka Palanivel	P	P	P	P	P	P	P
26.	P. Priyanka	P	P	P	P	P	P	P
27.	R. Regana	P	P	P	P	P	P	P
28.	E. Santha Priya	P	P	P	P	P	A	P
29.	R. Sathiya jothi	P	P	P	P	P	P	P
30.	S. Semeera	P	P	P	P	P	P	P
31.	B. Shanmathi	P	P	P	P	P	P	P
32.	K. Shopna Sri	P	P	P	P	P	P	P
33.	S. Sneka	P	P	P	P	P	P	P

S.NO	NAME OF THE STUDENTS	11.08.22	12.08.22	16.08.22	17.08.22	18.08.22	22.08.22	23.08.22
34.	M. Sowmiya	P	P	P	P	P	P	P
35.	S. Suganya	P	P	P	P	P	P	P
36.	H. Surega	P	P	P	P	P	P	P
37.	C. M. Swetha	P	P	P	P	P	P	P
38.	M. Thaslima parveen	P	P	P	P	P	P	P
39.	M. Vaishnavi	P	P	P	P	P	P	P
40.	R. Valarmathi	P	P	P	P	P	P	P
41.	N. Vanjani	P	P	P	P	P	P	P
42.	B. Vigneshwari	P	P	P	P	P	P	P
43.	S. Yuvana	P	P	P	P	P	P	P
44.	R. Swetha	P	P	P	P	P	P	P
45.	M. Jeevitha	P	P	A	P	P	P	P
46.	M. Pavithra	P	P	P	P	P	P	P
47.	R. Mahalakshmi	P	P	P	P	P	P	P
48.	P. Abirami	P	P	P	P	P	P	P
49.	V. Deepika	P	P	P	P	P	P	P
50.	R. Ishwarya	P	P	P	P	A	P	P
51.	N. Gugapriya	P	P	P	P	P	A	P
52.	S. Swathi Dhesiya	P	A	P	P	P	P	P
53.	M. Nithiya	P	P	P	P	P	P	P
54.	P. Gayathri	P	P	P	P	P	P	P
55.	S. Selvapriya	P	P	P	P	P	P	P
56.	R. Shalini	P	P	P	P	P	P	P
57.	V. Swathi	A	P	P	P	P	P	P
58.	S. Vaishnavi	A	P	P	P	P	P	P
59.	A.K.Sakthipriyadharshini	A	P	P	P	P	P	P
60.	S. Suvathika	A	P	P	P	P	P	P
61.	T. Aathikesavan	P	P	P	P	P	P	P
62.	Abhishek Subbiah	P	P	P	P	P	P	P
63.	M. Arun	P	P	A	P	P	P	P
64.	G. Balaji.	P	P	P	P	P	P	P
65.	M. Balamurugan.	P	P	A	P	P	P	P
66.	Dhinakaran	P	P	P	P	P	P	P
67.	K. Hariharan	P	P	P	P	P	P	A
68.	S. Hariharan	P	P	P	P	P	P	P
69.	K. Karthikeyan	P	P	P	P	P	P	P

S.NO	NAME OF THE STUDENTS	11.08.22	12.08.22	16.08.22	17.08.22	18.08.22	22.08.22	23.08.22
70.	A. Karthimani.	P	P	P	P	P	P	P
71.	R. Manikandan	P	P	P	P	P	P	P
72.	A. Mohamed Akmal	P	P	P	P	P	P	P
73.	J. Mohamed Kasim	P	P	P	P	P	P	P
74.	A. Nanthakumar	P	P	P	P	P	P	P
75.	S. Natarajan	P	P	P	P	P	P	P
76.	A. Periyasamy	P	P	P	P	P	P	P
77.	G. Sakthivel	P	P	P	A	P	P	P
78.	G. Saravana Muthu	P	P	P	P	P	P	P
79.	S. Saravanan	P	P	P	P	A	P	P
80.	G Sathiyamoorthi	P	P	P	P	P	P	P
81.	RM. Subbaiya	P	P	P	P	P	P	P
82.	R. M. Sudharshan	P	P	P	P	P	P	P
83.	M. Tamil Mani	P	P	P	P	P	P	P
84.	M. Thiyagarajan	P	A	P	P	P	P	P
85.	J. Vishwa.	P	P	P	P	P	P	P
86.	G Yogeshwaran	P	P	P	P	P	P	P
87.	D. Yokesh	P	P	P	P	P	P	P
88.	S. Sivakavi	P	P	P	P	P	P	P
89.	J. Larance samuvel	P	P	P	A	P	P	P
90.	R. Arun Pal.	P	P	P	P	P	P	P
91.	R. Vikkash	P	P	A	P	P	P	P
92.	A.Mohamed Abdul Rahim	P	P	P	P	P	P	P
93.	S Aathithan	P	P	P	P	A	P	P
94.	R. Sanjaikumar	P	P	P	P	P	A	P
Total No. of Present / Absent		P-87 / A-07	P-92 / A-02	P-89 / A-05	P-91 / A-03	P-91 / A-03	P-90 / A-04	P-93 / A-01
Signature of the STAFF		#	#	#	#	#	#	#

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J.J COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)
PUDUKKOTTAI
DEPARTMENT OF BIOTECHNOLOGY

BRIDGE COURSE – PRE TEST (BATCH 2022- 2023)

Date: 11.08.2022

Time: 2 hrs. Marks: 50

PART – A (ANSWER ALL THE QUESTIONS) (20×1=20)

1. Glucose is a
(a) Amino acid (b) Protein (c) Carbohydrate (d) lipid
2. Tuberculosis caused by
(a) Bacteria (b) Virus (c) Algae (d) Fungi
3. *Aspergillus niger* is a
(a) Algae (b) Virus (c) Fungi (d) Bacteria
4. syllabus is being framed by?
(a) J.J College (b) Bharathiyar University (c) Anna University
(d) Bharathidasan University
5. Study of immunity
(a) Pathology (b) Immunology (c) Medicine (d) Microbiology
6. Causative agent of Amoebiasis is
(a) *Vibrio Cholerae* (b) *E.coli* (c) HIV (d) *Entamoeba histolytica*
7. Restriction enzymes were discovered by
(a) Smith and Nathans (b) Alexander Fleming (c) Berg (d) None
8. Which of the following is known as the power house of the cell?
(a) Mitochondria (b) ATP (c) Chloroplast (d) Lysosome
9. First class with distinction means scoring?
(a) Above 60% (b) 75% and above (c) Below 75% (d) 50-60%
10. Krebs cycle is also known as?
(a) Calvin Cycle (b) Hill's reaction (c) TCA Cycle (d) Glycolysis
11. The pH range of an acid
(a) 0 (b) 7 (c) 1 - 6.9 (d) 7.1 - 14


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12. Who first developed vaccine for Rabies?
(a) Robert Koch (b) Edward Jenner (c) Alexander Flemming (d) Louis Pasteur
 13. Double helical structure of DNA was discovered by
(a) Watson & Crick (b) Griffith (c) Mendel (d) Morgan
 14. Sterilization is nothing but of Microbes
(a) Killing (b) Complete removal (c) Inactivation (d) Culturing
 15. Blood cancer is referred as
(a) Sarcoma (b) leukemia (c) Carcinoma (d) None of the above
 16. Increase in earth's temperature is referred as
(a) Acid rain (b) Green house effect (c) Hearing (d) Global warming
 17. Numbers of chromosome in humans
(a) 48 (b) 46 (c) 44 (d) 42
 18. Color blindness caused due to the deficiency of
(a) Vitamin A (b) Vitamin B (c) Vitamin K (d) Vitamin D
 19. Name the pigment involved in photosynthesis
(a) Chlorophyll (b) Xanthophylls (c) chloroplast (d) chromosome
 20. Which pattern does our college follows?
(a) Open University (b) Non – semester (c) Semester
(d) Correspondent Our college
- PART – B (ANSWER ALL THE QUESTIONS) (10×3=30)**
1. What is bridge course?
 2. AIDS
 3. Define Biotechnology and explain about the scope of Biotechnology
 4. What is Cloning?
 5. List out the global environmental problems
 6. What is the incubation period for COVID-19?
 7. Draw the structure of plant and animal cell and label the parts
 8. what is mitosis?
 9. Define plasmid
 10. Define oncology


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J.J. COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

DEPARTMENT OF BIOTECHNOLOGY

BRIDGE COURSE: POST- TEST (UG BATCH 2022-2023)

DATE : 24.08.2022

MARKS: 50

TIME: 2 HRS.

PART – A (ANSWER ALL THE QUESTIONS)

(20×1=20)

1. Chloroplast present in
(a) Plant cell (b) Animal cell (c) Bacteria (d) Fungi
2. Study of insects
(a) Microbiology (b) Zoology (c) Biochemistry (d) Entomology
3. Immunology deals with
(a) Metabolism (b) Diseases (c) Immunity (d) None of the above
4. Who is father of Immunology?
(a) Robert Koch (b) Edward Jenner (c) Alexander Flemming
(d) Louis Pasteur
5. Causative agent of typhoid
(a) *Vibrio cholera* (b) *E. Coli* (c) *Salmonella typhi* (d) *entamoeba histolytica*
6. Study of Microorganisms
(a) Pathology (b) Immunology (c) Microbiology (d) Zoology
7. DNA Double helix discovered by
(a) Watson and Crick (b) Alexander Flemming (c) Charles Darwin (d) Gregor Mendel
8. Type of RNA
(a) mRNA (b) tRNA (c) rRNA (d) All the above
9. Protein are made up of
(a) Amino Acid (b) Acetic Acid (c) HCL (d) Sugar
10. DNA is
(a) Deoxyribonucleic acid (b) ribonucleic acid (c) Phosphoric acid (d) all the above
11. Lab coat is otherwise called
(a) Operon (b) Apron (c) Gloves (d) Mask
12. Name the material used for cultivation of microbes
(a) Growth factors (b) Medium (c) Nutrients (d) All the Above

13. The first transgenic plant to be produced is

(a) Brinjal (b) Tobacco (c) Rice (d) Cotton

14. The term cell was given by

(a) Robert Hooke (b) Tatum (c) Schwann (d) De Bary

15. Which Council regulates Arts & Science College in India

(a) AICTE (b) AIMS (c) IIM (d) UGC

16. Glucose is a

(a) Vitamin (b) Protein (c) Lipid (d) Carbohydrate

17. pH of stomach is

(a) 1 (b) 2 (c) 3 (d) 4

18. r-DNA technology also known as

(a) Genetics (b) Genetic engineering (c) Tissue engineering (d)

None of the above

19. *E.coli* is a

(a) Virus (b) Bacteria (c) Algae (d) Fungi

20. CBCS Mean

(a) Choice based credit system (b) credit based choice system

(c) Credit based Credit system (d) Choice based criteria system

PART –B (ANSWER ALL THE QUESTIONS)

(10×3=30)

21. What is plasma membrane?
22. Write down the various branches of biotechnology
23. Write the scope of biotechnology
24. What is GPA?
25. What are the components of a cell?
26. Define Cell biology
27. What did you learn from the bridge course?
28. What are microbes?
29. Write short notes on sterilization
30. Differentiate the learning experience of the school and college.


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BRIDGE COURSE
Academic Year 2022-2023
Mark Statement

S.NO	NAME OF THE STUDENTS	Pre Test (50)	Post Test (50)
1.	S. Aarthi	19	29
2.	C. Abinayashree	15	35
3.	K. Abisri	20	34
4.	V. Alamelumangai	30	40
5.	R. Anjali	22	32
6.	P. Bhavani	27	39
7.	R. Bhuvaneswari	25	29
8.	V. Bhuvaneswari	24	32
9.	P. Deepika	33	45
10.	D. Devatharshini	30	39
11.	C. Dhanalakshmi	29	37
12.	C. Hemapriya	28	29
13.	R. Jenifer	32	47
14.	A. Jesima	35	49
15.	K. Kaleeswari	30	35
16.	V. Karthika	33	39
17.	S. Krishnaveni	30	41
18.	S. Krishnaveni	29	40
19.	Lathiba Begam	27	37
20.	R. Lisha	30	40
21.	M. Muthumaga lakshmi	25	41
22.	A. Nagadhivya	26	37
23.	S. Pratheepa	29	40
24.	L. Priyadharshini	23	37
25.	P. Priyanka Palanivel	32	40
26.	P. Priyanka	30	42
27.	R. Regana	35	45
28.	E. Santha Priya	33	45
29.	R. Sathiya jothi	29	32
30.	S. Semeera	33	45
31.	B. Shanmathi	35	45
32.	K. Shopna Sri	30	37
33.	S. Sneka	35	43

S.NO	NAME OF THE STUDENTS	Pre Test (50)	Post Test (50)
34.	M. Sowmiya	39	42
35.	S. Suganya	37	43
36.	H. Surega	33	40
37.	C. M. Swetha	29	35
38.	M. Thaslima parveen	37	47
39.	M. Vaishnavi	30	40
40.	R. Valarmathi	25	33
41.	N. Vanjani	27	35
42.	B. Vigneshwari	29	32
43.	S. Yuvana	30	35
44.	R. Swetha	27	30
45.	M. Jeevitha	29	33
46.	M. Pavithra	24	39
47.	R. Mahalakshmi	25	34
48.	P. Abirami	30	39
49.	V. Deepika	26	27
50.	R. Ishwarya	27	34
51.	N. Gugapriya	29	35
52.	S. Swathi Dhesiya	17	20
53.	M. Nithiya	23	23
54.	P. Gayathri	30	27
55.	S. Selvapriya	19	32
56.	R. Shalini	16	21
57.	V. Swathi	20	25
58.	S. Vaishnavi	30	40
59.	A.K. Sakthipriyadharshini	33	42
60.	S. Suvathika	40	45
61.	T. Aathikesavan	33	39
62.	Abhishek Subbiah	45	47
63.	M. Arun	43	45
64.	G. Balaji.	32	37
65.	M. Balamurugan.	20	25
66.	Dhinakaran	16	19
67.	K. Hariharan	19	22
68.	S. Hariharan	22	22
69.	K. Karthikeyan	25	32

S.NO	NAME OF THE STUDENTS	Pre Test (50)	Post Test (50)
70.	A. Karthimani.	33	40
71.	R. Manikandan	29	33
72.	A. Mohamed Akmal	25	32
73.	J. Mohamed Kasim	40	45
74.	A. Nanthakumar	27	27
75.	S. Natarajan	32	32
76.	A. Periyasamy	40	42
77.	G. Sakthivel	37	39
78.	G. Saravana Muthu	35	35
79.	S. Saravanan	37	39
80.	G Sathiyamoorthi	29	35
81.	RM. Subbaiya	40	45
82.	R. M. Sudharshan	37	37
83.	M. Tamil Mani	40	42
84.	M. Thiagarajan	19	19
85.	J. Vishwa.	20	20
86.	G Yogeshwaran	25	33
87.	D. Yokesh	25	25
88.	S. Sivakavi	32	30
89.	J. Larance samuvel	20	29
90.	R. Arun Pal.	20	22
91.	R. Vikkash	22	23
92.	A.Mohamed Abdul Rahim	29	33
93.	S Aathithan	35	37
94.	R. Sanjaikumar	30	30

STAFF INCHARGE :- H. S. [H. SAKTHIPRIYA]

Head of the Department

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