GENERIC ELECTIVE COURSE II: 5 D 03 MCB MICROBES AND ENVIRONMENT

SEMESTER COURSE CODE: 5 D 03   (20 hours)

HOURS PER WEEK: 2 CREDIT: 2 EXAM HRS: 2

COURSE OUTCOME

CO 1. Understand the basic concept of Ecology and factors influencing the growth of microorganisms in the environment

CO 2. Understand biogeochemical cycling in the environment and microbial interactions in the soil CO 3. Explain the role of microorganisms causing diseases transmitted through water and the importance of indicator organisms in determining the microbiological quality of drinking water

 CO 4. Understand steps involved in waste water treatment

CO5. Explain the methods to resolve important global environmental problems

Unit I: Basic concepts of Ecology and Environment. Ecosystem- concept and components food chains, food webs and trophic levels. Environmental factors influencing the growth and survival of microbes-physical-temperature, light, osmotic pressure and hydrostatic pressure. Chemical- pH, oxygen and carbon dioxide. Biological factors. (6 Hrs)

 Unit II: Biogeochemical cycles- C cycle, water cycle, N cycle- Nitrogen fixation, nitrification, denitrification. Rhizosphere and microbial interactions in soil: positive and negative. (brief account). (8 Hrs)

Unit III :Faecal pollution of water, water borne diseases, indicator organisms, sanitary examination of water. Drinking water purification methods. (8 Hrs)

 Unit IV: Dispersal of airborne microorganisms. Micro organisms and sewage treatment. BOD and DO. Trickling filters, activated sludge process, oxidation ponds. (8 Hrs)

Unit V :Global environmental problems-ozone depletion, Greenhouse effect and acid rain. Xenobiotics and Biomagnification. Release of GMO to the environment and their impact-Ethical issues. (6 Hrs)

 Books for Study

1) Microbial Ecology : Fundamentals & Applications- Richard Bartha, Ronald M Atlas 2) Microbiology- Michael J Pelczar, E C S Chan, Noel R Krieg

Books for Reference

   1) Environmental Microbiology-Ian Pepper, Raina M Maier, Charles P Gerba 2) Prescott, Harley,and Klein's Microbiology- Prescott

GENERIC ELECTIVE COURSE II: 5 D 02 MCB MICROBES AND ENVIRONMENT

(20 hours) SEMESTER COURSE CODE: 5 D 03

HOURS PER WEEK: 2 CREDIT: 2 EXAM HRS: 2

COURSE OUTCOME

CO 1. Understand the basic concept of Ecology and factors influencing the growth of microorganisms in the environment

CO 2. Understand biogeochemical cycling in the environment and microbial interactions in the soil CO 3. Explain the role of microorganisms causing diseases transmitted through water and the importance of indicator organisms in determining the microbiological quality of drinking water

 CO 4. Understand steps involved in waste water treatment

CO5. Explain the methods to resolve important global environmental problems

Unit I: Basic concepts of Ecology and Environment. Ecosystem- concept and components food chains, food webs and trophic levels. Environmental factors influencing the growth and survival of microbes-physical-temperature, light, osmotic pressure and hydrostatic pressure. Chemical- pH, oxygen and carbon dioxide. Biological factors. (6 Hrs)

 Unit II: Biogeochemical cycles- C cycle, water cycle, N cycle- Nitrogen fixation, nitrification, denitrification. Rhizosphere and microbial interactions in soil: positive and negative. (brief account). (8 Hrs)

Unit III :Faecal pollution of water, water borne diseases, indicator organisms, sanitary examination of water. Drinking water purification methods. (8 Hrs)

 Unit IV: Dispersal of airborne microorganisms. Micro organisms and sewage treatment. BOD and DO. Trickling filters, activated sludge process, oxidation ponds. (8 Hrs)

Unit V :Global environmental problems-ozone depletion, Greenhouse effect and acid rain. Xenobiotics and Biomagnification. Release of GMO to the environment and their impact-Ethical issues. (6 Hrs)

 Books for Study

1) Microbial Ecology : Fundamentals & Applications- Richard Bartha, Ronald M Atlas 2) Microbiology- Michael J Pelczar, E C S Chan, Noel R Krieg

Books for Reference

1) Environmental Microbiology-Ian Pepper, Raina M Maier, Charles P Gerba 2) Prescott, Harley,and Klein's Microbiology- Prescott

5D 03 MAT: Quantitative Arithmetic and Reasoning

Module – I (18 Hours)
Average, Problems on ages, Profit and loss, Ratio and proportion, Chain rule, Time and work. (Chapters 6, 8, 11, 12, 14, 15)

Module–II (18 Hours)
Time and distance, Problems on Trains, Boats and streams, Calendar, Clocks, Permutations and combinations, Heights and distances. (Chapters 17, 18, 19, 27, 28, 30, 34)

Text: R.S. Aggarwal, Quantitative Aptitude for Competitive Examinations, S. Chand Company Ltd, 7th Edition.

Module	Teaching Hours	External Examination		Internal Mark	Total Mark	Credit
		Aggregate Mark	Maximum Mark			
I	18	15	10	5	25	2
II	18	15	10			
Total	36	30	20	5	25	

5D02 MAT: Quantitative Arithmetic and Reasoning

Unit I   **(18 hours)**

Average, Problems on ages, Profit and loss, Ratio and proportion, Chain rule (Chapters 6, 8, 11, 12, 14 of the Text).

Unit II   **(18 hours)**

Time and work, Time and distance, Problems on trains, Boats and streams, Calendar, Clocks (Chapters 15, 17, 18, 19, 27, 28 of the Text).

Text

R.S. Aggarwal, Quantitative Aptitude for Competitive Examinations, S. Chand.

Marks including choice

Unit	Marks in End Semester Examination	
	Aggregate Marks	**Maximum Marks**
I	17	
II	16	20
Total	33	

Pattern of Question Paper

Part A -   **Short answer**   (5 questions x Mark 1each = 5)

- *Answer any 4 questions* (4 *questions x Mark 1each = 4*)

Part B -   **Short Essay**   (10 questions x Marks 2 each = 20)

- *Answer any 6 questions* (6 *questions x Marks 2 each=12*)

Part C -   **Essay**   (2 questions x Marks 4 each = 8)

- *Answer any 1 question*   (*1question x Marks 4 each=4*)

- **Use of Calculators shall _not_ be permitted for this course.**

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HRS
V	5D02BCA	2	2	2

COURSE OUTCOME

CO1: *Enable students to program for the World Wide Web using HTML, JavaScript.* *CO2*: *Create static and dynamic web pages.*
CO3: *Impart basic knowledge in Client-server model.*

UNIT I

Introduction to Internet and WWW, Introduction to HTML, structure of HTML, HTML elements, attributes, syntax of tags , starting and ending tags, physical style tags, listing, labeling, grouping, images and linking

(6 Hrs)

UNIT II

HTML Tables-tags-<tr>,<td>,<th> attributes. HTML Form-tag, attributes-type passwd, submit, radio, check, method, action.

(8Hrs)

UNIT III

Frames-<frame>, <frameset>, <iframe>,<noframe> and other important tags and attributes.Simple programs using frames.

(6 Hrs)

UNIT IV

Javascript- Introduction, data types, variables, operators, functions, objects, arrays. Client-side object hierarchy and document object Model, <script>, event handlers, javascript in urls.

(8Hrs)

UNIT V

Windows and frames-dialog boxes, status line, navigator object, opening Windows, closing windows, Location object, history object.- Date object- math object Accessing form object

(8Hrs)

94

Books for Study:

1. Bill Kennedy, Chuck Musciano, HTML: The Definitive Guide, 3rd Ed,
   O'Reilly Media
2. Flanagan David, JavaScript: The Definitive Guide, 6th Ed, O'Reilly Media

Books for Reference:

1. Thomas A. Powel, HTML & CSS: The Complete Reference, 5th Ed, TMH

Marks including choice:

	Marks
1	6
2	6
3	6
4	6
5	6

DEPARTMENT OF COMPUTER SCIENCE

OPEN COURSE (WEB TECHNOLOGY)

STUDENTS ENROLLED LIST DURING THE YEAR 2020-21

S.NO.	REG. NO.	NAME	DEPT.
1	GD18AEGR027	DEVIKA V M	BA ENGLISH
2	GD18BBAR10	ARJUN KM	BBA
3	GD18BR0015	ASWATHI A	BCom CO-OP
4	GD18BR0018	KAVYA T V	BCom CO-OP
5	GD18BR0021	SREERAG SASIDHARAN	BCom CO-OP
6	GD18BR0025	THEERTHA. K	BCom CO-OP
7	GD18BR0027	AJAY JANARDHANAN	BCom CO-OP
8	GD18BR0030	AKSHAY N V	BCom CO-OP
9	GD18BR0035	ATHULRAJ MP	BCom CO-OP
10	GD18BR0036	MANEETH RAVI P P	BCom CO-OP
11	GD18BR0043	VAISAKH MM	BCom CO-OP
12	GD18BR0044	VISHNU EDAYATH	BCom CO-OP
13	GD18BR0048	ANJALI S MUKUNDH	BCom CA
14	GD18BR0052	SANIKA K V	BCom CA
15	GD18BR0053	THASEELA I	BCom CA
16	GD18BR0054	AJITH NV	BCom CA
17	GD18BR0059	AFREEDA.VM	BCom CA
18	GD18BR0064	SHARIKA K	BCom CA
19	GD18BR0065	THARA VP	BCom CA
20	GD18BR0067	ABHINAND KV	BCom CA
21	GD18BR0070	AKSHAY KV	BCom CA
22	GD18BR0071	IYASS HUSSAIN	BCom CA

23	GD18BR0073	KARTHIK GANESH	BCom CA
24	GD18BR0074	M T P ABDU RAHMAN	BCom CA
25	GD18BR0075	MUHAMMAD ZAKIR V P P	BCom CA
26	GD18BR0076	MUHAMMED SAHAL	BCom CA
27	GD18BR0078	SHABEER ALI MC	BCom CA
28	GD18BR0079	SIDHARTH A	BCom CA
29	GD18BR0081	SINAN. A	BCom CA
30	GD18BR0082	SOURAV P P	BCom CA
31	GD18BR0084	SREERAG RAJEEV	BCom CA
32	GD18BSWR007	KIRAN P.	BSW

33	GD18BSWR023	NIKHIL KRISHNAN	BSW
34	GD18CMSR03	ATHIRA.C.V	BSc MATHS
35	GD18CMSR21	REMYA MOHANAN P	BSc MATHS
36	GD18TTMR05	ADARSH.P.M	BBA TTM
37	GD18TTMR07	BINIL TV	BBA TTM
38	GD18TTMR12	ASWINI K V	BBA TTM
39	GD18TTMR14	CHANDANA K P	BBA TTM
40	GD18TTMR18	HRIDYA.K	BBA TTM
41	GD18TTMR24	AMRITHJITH V	BBA TTM
42	GD18TTMR33	SHANIBA PC	BBA TTM

DEPARTMENT OF COMPUTER SCIENCE

OPEN COURSE (WEB TECHNOLOGY)

STUDENTS ENROLLED LIST DURING THE YEAR 2021-22

S.NO.	REG. NO.	NAME	DEPT.
1	GD19CCHR17	YADU KRISHNAN	BSc Chemistrty
2	GD19BR0010	ADITHYA B NAMBIAR	BCom Cooperation
3	GD19BR0002	ARYA KRISHNA	BCom Cooperation
4	GD19BR0001	ANJANA KV	BCom Cooperation
5	GD19BR0005	POOJA PRAJITH	BCom Cooperation
6	GD19BR0004	GEETHU.M	BCom Cooperation
7	GD19BR0014	ANAGHA THAZHATHU VALAPPIL	BCom Cooperation
8	GD19BR0029	ADISH.K	BCom Cooperation
9	GD19BR0042	RAHULKRISHNAN C R	BCom Cooperation
10	GD19BR0019	ATHIRA P	BCom Cooperation
11	GD19BR0018	ARYA T V	BCom Cooperation
12	GD19BR0035	DEVADATH MK	BCom Cooperation
13	GD19BR0048	FIRDOUS JAHAAN	BCom C.A.

14	GD19BR0066	SUNITHA M S	BCom C.A.
15	GD19BR0069	ABHISHEK MOHAN K	BCom C.A.
16	GD19BR0060	MIDHUNA.K.P	BCom C.A.
17	GD19BR0053	ARUNIMA. P. K	BCom C.A.
18	GD19BR0058	MEGHA.A.K	BCom C.A.
19	GD19BR0032	ANUPRASANTH. P	BCom Cooperation
20	GD19BR0021	MALAVIKA.A.V	BCom Cooperation
21	GD19BR0041	PRANAV CHANDRAN KV	BCom Cooperation
22	GD19BR0055	BHAGYASREE A P	BCom C.A.
23	GD19AEGR030	NANDAGOPALAN. M	BA English
24	GD19BROO46	CHAITHANYA.T.V	BCom C.A.
25	GD19AEGR010	HARSHITH MV	BA English
26	GD19BR0067	VARSHA.M	BCom C.A.
27	GD19BR0061	PARVATHI.T	BCom C.A.
28	GD19BR0045	VISHNU B.P	BCom Cooperation
29	GD19BR0077	MUHAMMAD SALLUHI NAV	BCom C.A.
30	GD19BR0059	MEGHNA. K	BCom C.A.

31	GD19BR0054	ASWATHI K	BCom C.A.
32	GD19BR0073	ASHWIN VIJAY K	BCom C.A.
33	GD19BR0052	APARNA. P	BCom C.A.
34	GD19BR0049	VANIKRISHNA	BCom C.A.
35	GD19BR0062	RYHANA.A.G	BCom C.A.
36	GD19BR0071	AL AMEEN M	BCom C.A.
37	GD19BR0064	SNEHA MK	BCom C.A.
38	GD19BR0056	KAVYA CHANDRAN KV	BCom C.A.
39	GD19BR0076	MUHAMMAD ASEEB OT	BCom C.A.
40	GD19BR0022	SAFYATH BEEVI AP	BCom Cooperation
41	GD19BR0080	NISHAD AMEER ALI	BCom C.A.
42	GD19BR0074	FAHAD MAHMOOD	BCom C.A.
43	GD19BR0057	MEERA SASIKUMAR A.V	BCom C.A.
44	GD19CCHR29	SNEHA PV	BSc Chemistry
45	GD19TTMR018	HRITHIK CHANDRAN K	BBA TTM