No.KU/Aca(S&T)/RPH-394A/2021-22/1155   Date: 29 OCT 2021

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2021–22ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳಿಗೆ 1 ಮತ್ತು 2ನೇ ಸೆಮೆಸ್ಟರ್
NEP-2020 ಮಾದರಿಯ ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1. ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿಗಳು(ವಿಶ್ವವಿದ್ಯಾಲಯ 1) ಉನ್ನತ ಶಿಕ್ಷಣ ಇಲಾಖೆ ಇವರ ಆದೇಶ
ಸಂಖ್ಯೆ: ಇಡಿ 260 ಯುಎನ್ಇ 2019(ಭಾಗ–1), ದಿ:7.8.2021.

2. ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ದಿನಾಂಕ: 19.08.2021

3. ಈ ಕಛೇರಿ ಸುತ್ತೋಲೆ ಸಂ.No. KU/Aca(S&T)/RPH-394A/2021-22/18 ದಿ:21.08.2021.

4. ಸರ್ಕಾರಿ ಆದೇಶ ಸಂ ಇಡಿ 260 ಯುಎನ್ಇ 2019(ಭಾಗ–1),ಬೆಂಗಳೂರು ದಿ. 15.9.2021.

5. ಎಲ್ಲ ಅಭ್ಯಾಸಸೂಚಿ ಮಂಡಲಿ ಸಭೆಗಳ ನಡವಳಿಗಳು

6. ಎಲ್ಲ ನಿಖಾಯಗಳ ಸಭೆಗಳು ಜರುಗಿದ ದಿನಾಂಕ: 24,25–09–2021.

7. ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂಖ್ಯೆ: 01 ದಿನಾಂಕ: 28.9.2021.

8. ಈ ಕಛೇರಿ ಸುತ್ತೋಲೆ ಸಂ.No. KU/Aca(S&T)/RPH-394A/2021-22/954 ದಿ:30.09.2021.

9. ಎಲ್ಲ ನಿಖಾಯದ ಡೀನರು / ಸಂಪನ್ಮೂಲ ತಜ್ಞರ ಸಭೆ ದಿನಾಂಕ 21.10.2021.

10. ಎಲ್ಲ ಸ್ನಾತಕ ಅಭ್ಯಾಸಸೂಚಿ ಮಂಡಲಿ ಅಧ್ಯಕ್ಷರುಗಳ ಸಭೆ ದಿನಾಂಕ 22.10.2021.

11. ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂಖ್ಯೆ: 01 ದಿನಾಂಕ: 27.10.2021.

12. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶ ದಿನಾಂಕ: 29-10-2021
————————

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಗಳನ್ವಯ ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶದ ಮೇರೆಗೆ, 2021–22ನೇ
ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಅನ್ವಯವಾಗುವಂತೆ, ಎಲ್ಲ B.A./ BPA (Music)/BVA/ BTTM/ BSW/ B.Sc./B.Sc. Pulp & Paper
Science/ B.Sc. (H.M)/ BCA/ B.A.S.L.P./ B.Com/ B.Com (CS)/ & BBA   ಸ್ನಾತಕ ಕೋರ್ಸಗಳ 1 ಮತ್ತು 2ನೇ
ಸೆಮೆಸ್ಟರ್ಗಳಿಗೆ NEP-2020 ರಂತೆ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದಿತ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಈಗಾಗಲೇ
ಪ್ರಕಟಪಡಿಸಿದ್ದು, ಮುಂದೆ ದಿನಾಂಕ 04.10.2021 ವರೆಗೆ ಸರ್ಕಾರವು ಕಾಲಕಾಲಕ್ಕೆ ನೀಡಿದ ನಿರ್ದೇಶನಗಳನ್ನು ಅಳವಡಿಸಿಕೊಂಡು
ದಿನಾಂಕ 27.10.2021 ರಂದು ಜರುಗಿದ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯಲ್ಲಿ ಅನುಮೋದನೆ ಪಡೆದು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ
www.kud.ac.in ದಲ್ಲಿ ಭಿತ್ತರಿಸಲಾಗಿದೆ. ಸದರ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲದಿಂದ ಡೌನಲೋಡ ಮಾಡಿಕೊಳ್ಳಲು
ಸೂಚಿಸುತ್ತ ವಿದ್ಯಾರ್ಥಿಗಳ ಹಾಗೂ ಸಂಬಂಧಿಸಿದ ಎಲ್ಲ ಬೋಧಕರ ಗಮನಕ್ಕೆ ತಂದು ಅದರಂತೆ ಕಾರ್ಯಪ್ರವೃತ್ತರಾಗಲು ಕವಿವಿ
ಅಧೀನದ/ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಂಚಾರ್ಯರುಗಳಿಗೆ ಸೂಚಿಸಲಾಗಿದೆ.

ಕುಲಸಚಿವರು.

ಅಡಕ: ಮೇಲಿನಂತೆ
ಗೆ,
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಎಲ್ಲ ಅಧೀನ ಹಾಗೂ ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ
ಪ್ರಾಂಚಾರ್ಯರುಗಳಿಗೆ. (ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ ಹಾಗೂ ಮಿಂಚಂಚೆ ಮೂಲಕ ಬಿತ್ತರಿಸಲಾಗುವುದು)

ಪ್ರತಿ:
1. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
2. ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
3. ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ) ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
4. ಅಧೀಕ್ಷಕರು, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ / ಗೌಪ್ಯ / ಜಿ.ಎ.ಡಿ. / ವಿದ್ಯಾಮಂಡಲ (ಪಿ.ಜಿ.ಪಿಎಚ್.ಡಿ) ವಿಭಾಗ, ಸಂಬಂಧಿಸಿದ
ಕೋರ್ಸಗಳ ವಿಭಾಗಗಳು ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
5. ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ / ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

KARNATAK UNIVERSITY, DHARWAD

B.A. Program

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SYLLABUS

Subject: Computer Application

[Effective from 2021-22]

DISCIPLINE SPECIFIC CORE COURSE (DSCC) FOR SEM I & II,

OPEN ELECTIVE COURSE (OEC) FOR SEM I & IIand

SKILL ENHANCEMENT COURSE (SEC) FOR SEM I

AS PER N E P - 2020

Karnatak University, Dharwad
Four YearsUnder Graduate Programin **Computer Application**for B.A.
Effective from 2021-22

Sem	Type of Course	Theory/ Practical	Course Code	Subject Title	Instruction hour per week	Total hours of Syllabus / Sem	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks	Credits
I	DSCC 1	Theory	CA–T -1.1	Computer Fundamental	04hrs	56	02 hrs	40	60	100	04
		Practical	CA –P- 1.2	Computer Fundamental Lab	04 hrs	52	03 hrs	25	25	50	02
	OEC-1	Theory	CAOEC -1.3	IT Fundamentals	03 hrs	42	02 hrs	40	60	100	03
	*SEC-1	Practical	CASEC-1.4	System Administration and Maintenance	03 hrs	30	02 hrs	25	25	50	02
II	DSCC2	Theory	CA-2.1	Programming Using C	04 hrs	56	02 hrs	40	60	100	04
		Practical	CA.-2.2	C – Programming Lab	04 hrs	52	03 hrs	25	25	50	02
	OEC-2	Theory	CAOEC-2.4	Multimedia Systems and Applications	03 hrs	42	02 hrs	40	60	100	03
			Details of the other Semesters will be given later								

* Student can opt digital fluency as SEC or the SEC of his/ her any one DSCC selected

Name of Course (Subject):Computer Application

Programme Specific Outcome (PSO):

On completion of the 03/ 04 years Degree in Computer Sciencestudents will be able to:

PSO 1   : Efficiently use Office Automation Tools like word processors, spreadsheets and presentation tools.

PSO 2   : Develop simple programming constructs in a Programming Language.

PSO 3   : Use multimedia authoring tools to design small applications using sound, audio, and video/animation.

PSO 4   : Develop simple websites using HTML/DHTML, CSS and JavaScript programming codes.

PSO 5   : Handle Computer Networks, modems and routers, and efficiently use Internet.

PSO 6   : Develop and implement a simple project based on case studies.

B.A. Semester –I

Subject: Computer Application
Discipline Specific Course (DSC)

The course Computer Application **in I semester has two papers (Theory Paper –I for 04 credits&Practical Paper -II for 2 credits) for 06 credits: Both the papers are compulsory. Details of the courses are as under.**

Course No.1 (Theory): Title of the Course (Theory): Computer Fundamentals

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-01	DSCC	Theory	04	04	56hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course (Theory), students will be able to:
CO 1 : Handle a computer system for day to day use.
CO 2 : Enumerate different types of input/ output devices and types of memory.
CO 3 : Perform basic arithmetic operations using different number systems including binary arithmetic.
CO 4 :Differentiate between system and application software.
CO 5 : Prepare documents / spreadsheets.

Syllabus- Course 1(Theory): Computer Fundamentals	Total Hrs: 56
Unit-I	**14 hrs**
Introduction: Introduction to computer system, uses, types. **Data Representation:** Number systems and character representation, binary arithmetic	
Unit-II	**14 hrs**
Human Computer Interface: Types of software, Operating system as user interface, utility programs. **Devices:** Input and output devices (with connections and practical demo), keyboard, mouse, joystick, scanner, OCR, OMR, bar code reader, web camera, monitor, printer, plotter.	
Unit-III	**14 hrs**
Memory: Primary, secondary, auxiliary memory, RAM, ROM, cache memory, hard disks, optical disks **Computer Organisation and Architecture:** C.P.U., registers, system bus, main memory unit, cache memory, Inside a computer, SMPS, Motherboard, Ports and Interfaces, expansion cards, ribbon cables, memory chips, processors.	
Unit-IV	**14 hrs**
Overview of Emerging Technologies: Bluetooth, cloud computing, big data, data mining, mobile computing and embedded systems. **Use of Computers in Education and Research:** Data analysis, Heterogeneous storage, e-Library, Google Scholar, Domain specific packages such as SPSS, Mathematica etc.	

Books recommended.

1. A, Goel, Computer Fundamentals, Pearson Education, 2010.
2. P Aksoy, L. DeNardis, Introduction to Information Technology, Cengage Learning, 2006
3. P K.Sinha, P. Sinha, Fundamentals of Computers, BPB Publishers, 2007

B.A. Semester –I

Subject: Computer Application
Discipline Specific Course (DSC)

Course No.1 (Practical): Title of the Course (Practical): Computer Fundamental Lab

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-01	DSCC	Practical	02	04	52 hrs	3hrs	25	25	50

Course Outcome (CO):

After completion of course (Practical), students will be able to:

CO 1 : **Using the text editor be able to prepare grocery list, telephone directory, time table form** etc.,

CO 2 : **Be able to create the spread sheet by using the various data.**

CO 3 : **Be able to create various page documents.**

List of the Experiments for 52 hrs / Semesters

Text Editor

1. Prepare a **grocery list** having four columns (Serial number, The name of the product, quantity and price) for the month of April, 06
   - Font specifications for Title (Grocery List): 14-point Arial font in bold and italics.
   - The headings of the columns should be in 12-point and bold.
   - The rest of the document should be in 10-point Times New Roman
   - Leave a gap of 12-points alter the title.

2. Create a **telephone directory**.
   - The heading should be 16-point Arinl Font in bold
   - The rest of the document should use 10»point font size
   - Other headings should use 10-point Courier New Font.
   - The footer should show the page number as well as the date last updated.

3. Design a **time-table form** for your college.
   - The first line should mention the name of the college in 16-point Arial Font and should be bold.
   - The second line should give the course name/teacher's name and the department in 14-point Arial.
   - Leave a gap of 12-points.
   - The rest of the document should use 10-point Times New Roman font.
   - The footer should contain your specifications as the designer and date of creation.

4. BPB Publications plans to release a new book designed as per your syllabus. Design the **first page of the book** as per the given specifications.
   - The title of the book should appear in bold using 20-point Arial font
   - The name of the author and his qualifications should bo in the center of the page in 16-point Arial font.
   - At the bottom of the document should be the name of the publisher and address in 16-point Times New Roman.
   - The details of the offices of the publisher (only location) should appear in the footer.

5. Create the following one page documents.
   a. Compose a note inviting friends to a get-together at your house, Including a list of things to bring with them.
   b. Design a certificate in landscape orientation with a border around the document.
   c. Design a Garage Sale sign.
   d. Make a sign outlining your rules for your bedroom at home, using a numbered list.

6. Create the following documents:
   (a) A newsletter with a headline and 2 columns in portrait orientation, including at least one image surrounded by text
   (b) Use a newsletter format to promote upcoming projects or events in your classvroom or college.

7. Convert following text to a table, using comma as delimiter

   Type the following as shown (do not bold),
   Color, Style, Item
   Blue, A980, Van
   Red,X023,Car
   Green. YL724, Truck
   Name. Age, Sex
   Bob, 23, M
   Linda, 46, F
   Tom, 29, M

9. Enter the following data into a table given on the next page.

Salesperson	Dolls	Trucks	Puzzles
Kennedy, Sally	1327	1423	1193
White, Pete	1421	3863	2934
Pillar, James	5214	3247	5467
York, George	2190	1278	1928
Banks, Jennifer	1201	2528	1203
Atwater, Kelly	4098	3079	2067

Add a column Region (values: S, N, N,S,S,S) between the Salesperson and Dolls columns to the given table Sort your table data by Region and within Region by Salesperson in ascending order.

In this exercise, you will add a new row to your table, place the word "Total" at the bottom of the Salesperson column, and sum the Dolls, Trucks, and Puzzles columns,

10.	Wrapping of text around the image.

11.	Create your resume by incorporating most of the options learned till now

12.	Following features of menu option must be covered
FILE		Complete menu
EDIT		Complete menu
VIEW		Complete menu
INSERT		Complete menu
FORMAT		Complete menu
TABLE		Complete menu
WINDOW		Complete menu
HELP		Complete menu
TOOLS		All options except Online collaboration, Tools on Macro, Templates

Spreadsheet

1.	Enter the Following data in Excel Sheet

REGIONAL SALES PROJECTION

State	Qtr1	Qtr2	Qtr3	QTR4	Qtr Total	Rate	Amount
Delhi	2020	2400	2100	3000		15	
Punjab	1100	1300	1500	1400		20	
U. P.	3000	3200	2600	2800		17	
Haryana	1800	2000	2200	2700		15	
Rajasthan	2100	2000	1800	2200		20	

TOTAL
AVERAGE

(a) Apply Formatting as follow:
i.	Tide in TIMES NEW ROMAN
ii.	Font Size -14
iii.	Remaining text - AR1AL, Font Size -10
iv.	State names and Qtr. Heading Bold, Italic with Gray Fill Color.
v.	Numbers in two decimal places.
vi	Qtr, Heading in center Alignment
vii.	Apply Border to whole data.
 (b) Calculate State and Qtr. Total
(c) Calculate Average for each quarter
(d) Calculate Amount = Rate * Total.

2. Given the following worksheet

	A	B	C	D
1	Roll No.	Name	Marks	Grade
2	1001	Sachin	99	
3	1002	Sehwag	65	
4	1003	Rahul	41	
5	1004	Sourav	89	
6	1005	HarBhajan	56	

Calculate the grade of these students on the basis of following guidelines:

If Marks	Then Grade
>=80	A+
>=60<80	A
>= 50 < 60	B
<50	F

3. Given the following worksheet

	A	B	C	D	E	F	G
			Sales in (Rs.)				
	Salesman No	Qtr1	Qtr2	Qtr3	Qtr4	Total	Commission
1	S001	5000	8500	12000	9000		
2	S002	7000	4000	7500	11000		
3	S003	4000	9000	6500	8200		
4	S004	5500	6900	4500	10500		
5	S005	7400	8500	9200	8300		
6	S006	5300	7600	9800	6100		

Calculate the commission earned by the salesmen on the basis of folio win Candidates:

If Total Sales	Commission
< 20000	0% of sales
>20000 and < 25000	4% of sales
>25000 and < 30000	5.5% of sales
>30000 and < 35000	8% of sales
>= 35000	11% of sales

The total sales is sum of sales of all the four quarters.

4. A company XYZ Ltd. pays a monthly salary to its employees which consists of basic salary, allowances & deductions. The details of allowances and deductions are as follows:

Allowances
- HRA Dependent on Basic
  30% of Basic if Basic <=1000
  25% of Basic if Basic>1000 & Basic<=3000
  20% of Basic if Basic >3000
- DA Fixed for all employees, 30% of Basic
- Conveyance Allowance
  Rs. 50/- if Basic is <=1000
  Rs. 75/- if Basic >1000 & Basic<«2000
  Rs. 100 if Basic >2000

- Entertainment Allowance
  NIL if Basic is <=1000
  Rs. 100/- if Basic > 1000

Deductions
- Provident Fund6% of Basic
- Group Insurance Premium
  Rs. 40/- if Basic is <= 1500
  Rs. 60/- if Basic > 1500 & Basic <= 3000
  Rs. 80/- if Basic > 3000

Calculate the following:

Gross Salary   = Basic + HRA + DA + Conveyance + Entertainment
Total deduction   = Provident Fund + Group Insurance Premium
Net Salary   =Gross Salary - Total Deduction

5. Create Payment Table for a fixed Principal amount, variable rate of interest and time in the format below:

No. of Installments	5%	6%	7%	8%	9%
3	XX	XX	XX	XX	XX
4	XX	XX	XX	XX	XX
5	XX	XX	XX	XX	XX
6	XX	XX	XX	XX	XX

6. Use an array formula to calculate Simple Interest for given principal amounts given the rate of Interest and time

Rate of Interest	8%
Time	5 Years
Principal	Simple Interest
1000	?
18000	?
5200	?

7. The following table gives year wise sale figure of five salesmen in Rs.

Salesman	2000	2001	2002	2003
S1	10000	12000	20000	50000
S2	15000	18000	50000	60000
S3	20000	22000	70000	70000
S4	30000	30000	100000	80000
S5	40000	45000	125000	90000

(a)Calculate total sale year wise.
(b)Calculate the net sale made by each salesman
(c)Calculate the maximum sale made by the salesman
(d) Calculate the commission for each salesman under the condition.
    (i). If total sales >4,00,000 give 5% commission on total sale made by salesman
    (ii).Otherwise give 2% commission.
(e) Draw a bar graph representing the sale made by each salesman.
(f) Draw a pie graph representing the sale made by salesman in 2000

8. Enter the following data in Excel Sheet

PERSONAL BUDGET FOR FIRST QUARTER

Monthly Income (Net): 1,475

EXPENSES	JAN	FEB	MARCH	QUARTER TOTAL	QUARTER AVERAGE
Rent	600.00	600.00	600.00		
Telephone	4825	4150	60.00		
Utilities	6727	110.00	70.00		
Credit Card	200.00	110.00	70.00		
Oil	100.00	150.00	90.00		
AV to Insurance	150.00				
Cable TV	40.75	40.75	40.75		
Monthly Total					

(a) Calculate Quarter total and Quarter average.

(b) Calculate Monthly total.

(c) Surplus = Monthly income - Monthly total.

(d) What would be total surplus if monthly income is 1500.

(c) How much does telephone expense for March differ from quarter average

(f) Create a 3D column graph for telephone and utilities

(g) Create a pie chart for monthly expenses.

9. Enter the following data in Excel Sheet

TOTAL REVENUE EARNED FOR SAM'S BOOKSTALL

Publisher name	1997	1998	1999	2000	Total
A	Rs. 1,000.00	Rs. 1100.00	Rs. 1,300.00	Rs. 800.00	
B	Rs. 1.500.00	Rs. 700.00	Rs. 1,000.00	Rs. 2,000.00	
C	Rs. 700.00	Rs. 900.00	Rs. 1.500.00	Rs. 600.00	
D	Rs. 1.200.00	Rs. 500.00	Rs. 200.00	Rs. 1.100.00	
E	Rs 800.00	Rs. 1,000.00	Rs 3,000.00	Rs 560.00	

(a) Compute the total revenue earned

(b) Plot the line chart to compare the revenue of all publisher for 4 years.

(b) Chart Title should be 'Total Revenue of sam's Bookstall (1997-2000)'

(c) Give appropriate categories and value axis title.

10. Generate 25 random numbers between 0 & 100 and find their sum, Average and count. How many no. are in range 50-60

General instructions:

The practical assignment must include connecting parts of a computer and assembling it to an extent, media formatting and installation of some software.Practical exercises based on Open Office tools using document preparation and spreadsheet handling packages.

Scheme ofPractical Examination(distribution of marks): 25 marks for Semester end examination

1. 7 Marks (Program 1 + Execution without error)

2. 7 Marks (Program 2 + Execution without error)

3. Viva 6 Marks

4. Journal 5 Marks

    Total 25 marks

Note: Same Scheme may be used for IA(Formative Assessment) examination

B.A. Semester –I

Subject: Computer Application
Open Elective Course (OEC-1)
(OEC for other students)

OEC-1: Title of the Course :IT Fundamentals

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-1	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course, students will be able to:

CO 1 :Familiarize with various devices of computer.
CO 2 : Learn fundamental concepts of databases.
CO 3 : Focuses on network and internet application.
CO 4 : Know the use of computers in education and research.

Syllabus- OEC: IT Fundamentals	Total Hrs: 42
Unit-I	**14 hrs**
Introduction: Introduction to logical organization of computer, input and output devices (with connections and practical demo), keyboard, mouse, joystick, scanner, OCR, OMR, monitor, printer, plotter, primary memory, secondary memory, auxiliary memory. **User Interface**: Operating system as user interface, system tools, utility programs. **Database**: Introduction to database, relational data model, Entity types, entity set, attribute and key, relationships, relation types, SQL queries: select, from, where, order.	
Unit-II	**14 hrs**
Networks: Definition of network, classification of network, LAN MAN, WAN, distinction among the networks, Guided Media: Twisted pair, Coaxial cable, and Optical fiber. Unguided media: Microwave, Radio frequency propagation, Satellite, **LAN** Topologies: Ring, bus, star, mesh and tree topologies.	
Unit-III	**14 hrs**
Internet Applications: Internet as a global network, Search Engine Online education Internet utilities - email online banking, reservations etc. **Use of Computers in Education and Research**: Data analysis, Heterogeneous storage. e-Library, Google Scholar, Domain specific packages such as SPSS, Mathematica etc.	

Books recommended.

1. A Goel, Computer Fundamentals. Pearson Education, 2010,
2. P. Aksoy, L. DeNardis, Introduction to Information Technology, Cengage Learning, 2006
3. P K Sinha, P Sinha, Fundamentals of Computers, BPB Publishers, 2007

B.A. Semester - I

Subject: Computer Application
SKILL ENHANCEMENT COURSE (SEC)-I
Title of Paper: System Administration and Maintenance

Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Mode of Examination	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
SEC-I	Theory + Practical	02	03hrs	30	Practical	2hr	25	25	50

Course Outcome (CO):

After completion of Skill Enhancement course, students will be able to:

CO 1 : Distinguish between features of Linux/Unix and windows operating system.
CO 2 : Install/uninstall hardware and software.
CO 3 : Configure system environment.
CO 4 : Troubleshoot network connectivity issues.
CO 5 : Examine system performance issues.
CO 6 : Examine file structure and properties.

B.A. -1.5 (SEC – 1): System Administration and Maintenance	30 Hrs
Unit –1	10
Introduction to Operating system: Basics of operating system, services, features and functions of different operating systems, Kernel, API, CLI, GUI, devices and device drivers, IPv4, IPv6. **Exploring different Operating Systems**: Introduction to Linux/Unix based operating systems, introduction to Windows based operating systems, difference between Linux/Unix and other 68 operating systems, introduction to server based operating systems, difference between desktop based (Windows 10) and server based operating systems like Windows server 2003/2008.	
Unit –2	10
Linux/Ubuntu System Environment: Configuring desktop environment and desktop settings, installing and configuring software and hardware, exploring file structure, terminal, shell, basic Unix Commands like cat, ls, cd, date, cal, man, echo, pwd, mkdir, rm, rmdirps, kill etc.	
Unit –3	10
Windows System Environment: Configuring desktop environment and desktop settings, installing and configuring software and hardware, explore system configuration using control panel, creating users, add/ delete users, difference between workgroup and domain, concept of user profiles – creating and roaming, concept of Active Directory, process and disk management, Windows task manager, exploring file structure and file properties, backup and recovery. **Network Administration**: Examine network settings using commands like ipconfig/ifconfig, hostname, net, netstat, whoami etc., troubleshoot network connectivity issues using commands like: ipconfig, ping, tracert, route etc., sharing resources (files, printers etc.) on the network, accessing a system remotely using remote desktop.	

List of the Experiments for 52 hrs / Semesters

1. Installation of LINUX operating system.
2. Installation of WINDOWS operating system
3. Installation of office productivity software (MS Office/ Open Office).
4. User Management a. Graphical tools b. Command line tools include commands like useradd, userdel, passwd, etc. c. Edit the local configuration files directly using vi editor.
5. Directory management commands
   a. Write a syntax and usage the directory management commands with all options.
       i. ls command
       ii. cd command
       iii. pwd command
       iv. mkdir command
       v. rmkdir command
6. Process management commands and their execution.
   a. Ps
   b. Kill
   c. nice
7. Study the Firewall Configuration in Windows in detail.
8. Study the Firewall Configuration in Linux.
9. Study the Networks tools like ipconfig/ifconfig, netstat, whoami , trace route , Ping etc.
10. Start-up and shutdown scripts on Linux.

General instructions:

Practical's based on System Administration and Maintenance
Scheme of Practical Examination(distribution of marks): 25 marks for Semester end examination

1. **7 Marks (Program 1 + Execution without error)**

2. **7 Marks (Program 2 + Execution without error)**

3. **Viva 6 Marks**

4. **Journal 5 Marks**

       Total 25 marks

Note: Same Scheme may be used for IA(Formative Assessment) examination

Books recommended.

Text Books:
1. Panek, W., & Wentworth, T. (2010). Mastering Windows 7 administration. Wiley Publishing Inc.
2. Snyder, G., Hein, T. R., &EviNemeth, B. W. (2018). UNIX and Linux System Administration Handbook (Fifth edition). Pearson.
3. Sobell, M.S. (2014). A Practical Guide to Ubuntu Linux (Fourth edition). Prentice Hall.

References:
4. Burges, M. (2003). Principles of Network and System Administration. John Wiley & sons Ltd.
5. Limoncelli, T.A., Hogan, C., &Chalup, S. R. (2007). The Practice of System and Network Administration. Addison-Wesley.

Details of Formative assessment (IA)for DSCC theory/OEC: 40% weight age for total marks

Type of Assessment	Weight age	Duration	Commencement
Written test-1	10%	1 hr	8th Week
Written test-2	10%	1 hr	12th Week
Seminar	10%	10 minutes	--
Case study / Assignment / Field work / Project work/ Activity	10%	------	--
Total	40% of the maximum marks allotted for the paper		

Faculty of Social Science
04 - Year UG Honors programme:2021-22

GENERAL PATTERN OF THEORYQUESTION PAPER FOR DSCC/ OEC
(60 marks for semester end Examination with 2 hrs duration)

Part-A

1. Question number 1-06carries 2 marks each. Answer any05 questions   :10marks

Part-B

2. Question number 07- 11 carries 05Marks each. Answer any 04questions: 20 marks
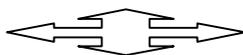
Part-C

3. Question number 12-15 carries 10 Marks each. Answer any 03 questions   : 30 marks

   (Minimum 1 question from each unit and 10 marks question may have sub
     questions for 7+3 or 6+4 or 5+5 if necessary)

Total: 60 Marks

Note: Proportionate weightage shall be given to each unit based on number of hours prescribed.

B.A. Semester –II

Subject: Computer Application
Discipline Specific Course (DSC)

The course Computer Application**in II semester has two papers (Theory Paper –I for 04 credits & Practical paper-II for 2 credits) for 06 credits: Both the papers are compulsory. Details of the courses are as under.**

Course No.2 (Theory): Title of the Course (Theory):Programming Using C

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-02	DSCC	Theory	04	04	56 hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course (Theory), students will be able to:

CO 1 : Familiarize with fundamentals concepts and computer programming.

CO 2 : Various constraints and syntax.

CO 3 : Learn fundamental concepts of programming by developing and executing programs in C

Syllabus- Course 2(Theory): **Programming Using C**	**Total Hrs: 56**
Unit-I	**14 hrs**
Introduction to Programming Paradigms: Evolution of programming languages, Structured programming, Procedural programming, object oriented programming, Functional programming and Logic programming, compilation process, object code, source code, executable code, fundamentals of algorithms, flow charts.	
Unit-II	**14 hrs**
Fundamentals: C character set Identifiers & Keywords, data types, constants, variables and arrays, declarations, expressions, statements, symbolic constants **Data types**: Properties of type and objects, data objects, variables and constants, data types, specification and implementations of elementary data types, declaration, type checking and type conversion, assignment and initialization, structured data types-vectors and arrays, records, lists, character strings, files and input-output.	
Unit-III	**14 hrs**
Operators and Expressions: Arithmetic operators, unary operators, relational and logical operators, assignment operators, conditional operators, Library functions. **Control Statements**: Branching, Looping, Nested control structures, switch break, continue statements, comma operator, go to statement.	

Unit-IV	14 hrs
Functions: Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion. **Arrays**: Defining and processing, one-dimensional Array, Multidimensional Array declaration and their applications, Passing arrays to a function.	

Books recommended.

Text Books:

1. Programming in ANSI C, E. Balaguruswamy, TMH Publications.
2. Computer Programming C.V. Rajmaman, PHI
3. Let us C - YashwantKanetkar, BPB Publications

References:

1. Kernighan& Ritchie, C Programming Language". The (Ansi C version), PHI, 2/0,1992
2. K.R Venugopal, "Mastering C", TMH, 2006

B.A. Semester –II

Subject: Computer Application
Discipline Specific Course (DSC)

Course No.2 (Practical): Title of the Course (Practical) :C – Programming Lab

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-02	DSCC	Practical	02	04	52 hrs	3hrs	25	25	50

Course Outcome (CO):

After completion of course (Practical), students will be able to:

CO 1 **:**Understand the basics of programming by executing the simple programming

CO 2 **:** Be able to design & execution of code.

CO 3 : Have practical knowledge of arrays, & functions

List of the Experiments for 52 hrs / Semesters

1. Write a program to find greatest of three numbers.
2. Write a program to find gross salary of a person
3. Write a program to find grade of a student given his marks.
4. Write a program to find divisor or factorial of a given number
5. Write a program to print first ten natural numbers.
6. Write a program to print first ten even and odd numbers
7 Write a program to find grade of a list of students given their marks.
8. Write a menu driven program for matrices to do the following operation depending on whether the operation requires one or two matrices
    a. Addition of two matrices
    b. Subtraction of two matrices
    c. Finding upper and lower triangular matrices

Scheme of Practical Examination (distribution of marks): 25 marks for Semester end examination

1. 7 Marks (Program 1 + Execution without error)

2. 7 Marks (Program 2 + Execution without error)

3. Viva 6 Marks

4. Journal 5 Marks

   Total 25 marks

Note: Same Scheme may be used for IA(Formative Assessment) examination

B.A. Semester –II

Subject: Computer Application
Open Elective Course (OEC-2)
(OEC for other students)

OEC-2: Title of the Course :Multimedia Systems and Applications

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-2	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course, students will be able to:

CO 1 :Enumerate and describe the multimedia components.

CO 2 :Generate, manipulate and use images in multimedia projects using bitmap, vector and 3-D images.

CO 3 :Create basic animations.

Syllabus- OEC: Multimedia Systems and Applications	Total Hrs: 42
Unit-I	**14 hrs**
Multimedia: Introduction to multimedia, components, uses of multimedia, multimedia applications, virtual reality. **Text**: Fonts & Faces, Using Text in Multimedia, Font Editing & Design Tools, Hypermedia & Hypertext. **Images**: Still Images-bitmaps, vector drawing, 3D drawing & rendering, natural light & colors, computerized colors, color palettes, image file format.	
Unit-II	**14 hrs**
Sound: Digital Audio, MIDI Audio, MIDI vs Digital Audio, Audio File Formats. **Video**: How video works, analog video, digital video, video file formats, video shooting and editing. **Animation**: Principle of animations, animation techniques, animation file formats.	
Unit-III	**14 hrs**
Internet and Multimedia: www and HTML, multimedia on the web-web servers, web browsers, web page makers and site builders. **Making Multimedia**: Stages of a multimedia project, Requirements to make good multimedia, Multimedia Hardware – Macintosh and Windows production Platforms, Hardware peripherals- Connections, Memory and storage devices, Multimedia software and Authoring tools.	

Books recommended.

Text Books:

1. Tay Vaughan, "Multimedia: Making It Work", TMH, Eight edition, 2011
2. Ralf Steinmetz and KlaraNaharstedt, "Multimedia: Computing, Communications & Applications", Pearson,1996.
3. Keyes, "Multimedia Handbook", TMH. 2000
4. K. Andleigh and K. Thakkar, "Multimedia System Design", PHI.2000
5. Vaughan, T.(2017). Multimedia: Making It Work (9th edition). McGraw Hill Education.

References:

1. Andleigh, K.., & Thakkar, K. (2015). Multimedia System Design (1st edition). Pearson Education India.
2. Keyes, J. (2000). The Ultimate Multimedia Handbook. TMH.
3. Steinmetz, R., &Naharstedt, K. (2012). Multimedia Computing, Communications Applications. Pearson.

Details of Formative assessment (IA) for DSCC theory/OEC: 40% weight age for total marks

Type of Assessment	Weight age	Duration	Commencement
Written test-1	10%	1 hr	8th Week
Written test-2	10%	1 hr	12th Week
Seminar	10%	10 minutes	--
Case study / Assignment / Field work / Project work/ Activity	10%	------	--
Total	40% of the maximum marks allotted for the paper		

Faculty of Social Science
04 - Year UG Honors programme:2021-22

GENERAL PATTERN OF THEORYQUESTION PAPER FOR DSCC/ OEC
(60 marks for semester end Examination with 2 hrs duration)

Part-A
1. Question number 1-06 carries 2 marks each. Answer any 05 questions   : 10marks

Part-B

2. Question number 07- 11 carries 05Marks each. Answer any 04 questions   : 20 marks

Part-C

3. Question number 12-15 carries 10 Marks each. Answer any 03 questions   : 30 marks

   (Minimum 1 question from each unit and 10 marks question may have sub
    questions for 7+3 or 6+4 or 5+5 if necessary)

Total: 60 Marks

Note: Proportionate weight age shall be given to each unit based on number of hours prescribed.