KAKATIYAINSTITUTEOFTECHNOLOGY&SCIENCE,WARANGAL-15

DEPARTMENTOFPSANDM&H

No. SEM-II /PS/M&H/KITS/2025 Date: 27/01/2025

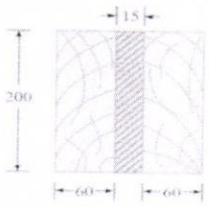
CIRCULAR

Sub:ILSemester-AllotmentofPracticumtopics–Reg.

Allotment of Practicum topics to students

Section : 2CE

S.No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B22CE014	Investigate Effectiveness of conductometric titration in determining the strength of Acids and Bases.	Engineering chemistry	Dr.D.Prabhakara Chary
2	B23CE027	Analysis of water for construction purpose	Engineering chemistry	Dr.D.Prabhakara Chary
3	B24CE001	Effect of Idol immersion on pond water in Warangal	Engineering chemistry	Dr.D.Prabhakara Chary
4	B24CE002	Investigate chemical characteristics of KITSW Well water	Engineering chemistry	Dr.D Prabhakara Chary
5	B24CE003	Purification of Borewell water by Reverse Osmosis(RO)	Engineering chemistry	Dr.D.Prabhakara Chary
6	B24CE004	Investigating of food dye concentration using colorimetric analysis	Engineering chemistry	Dr.D.Prabhakara Chary
7	B24CE005	Analysis of sewage water and its treatment at Warangal	Engineering chemistry	Dr.D.Prabhakara Chary
8	B24CE006	Investigation of corrosion on copper metal and its inhibition	Engineering chemistry	Dr.D.Prabhakara Chary
9	B24CE007	Physico-Chemical analysis of Soil for agricultre purpose	Engineering chemistry	Dr.D.Prabhakara Chary
10	B24CE008	Physico-Chemical analysis of Soil for construction purpose	Engineering chemistry	Dr.D.Prabhakara Chary
11	B24CE009	Chemical characterisation of Precious metals from e-waste	Engineering chemistry	Dr.D.Prabhakara Chary
12	B24CE010	A construction material loaded with 50 KN having a diameter of 25mm and length 600mm. The change in length of the specimen is 0.3mm.Develop an algorithm to calculate Young's modulus of the material.Write a C program to Young's modulus of the material.Determine the Young's modulus of the material	STRENGTH OF MATERIALS	Prof.M.Srikanth

13	B24CE011	A hollow square section with outer and inner dimensions of 50 mm and 40 mm respectively is used as a cantilever of span 1 m. How much concentrated load can be applied at the free end of the cantilever, if the maximum bending stress is not to exceed 35 MPa? Develop an algorithm to calculate concentrated load.	STRENGTH OF MATERIALS	Prof.M.Srikanth
14	B24CE012	I-sections, with rectangular ends, has the following dimensions: Flanges =150 mm × 20 mm, Web = 300 mm 10 mm. Find the maximum shearing stress An developed in the beam for a shear force of 50 kN. Write a C program to find maximum shearing stress developed in the beam section.	STRENGTH OF MATERIALS	Prof.M.Srikanth
15	B24CE013	A flitched timber beam made up of steel and timber has a section as shown in Figure. Write a C program to determine the moment of resistance of the beam. Take $\sigma S = 100$ MPa and $\sigma T = 5$ MPa. 	STRENGTH OF MATERIALS	Prof.M.Srikanth
16	B24CE014	Two beams are simply supported over the same span and have the same flexural strength. Compare the weights of these two beams, if one of them is solid and the other is hollow circular with internal diameter half of the external diameter. Develop a C Program to Compare the weights of the two beams.	STRENGTH OF MATERIALS	Prof.M.Srikanth
17	B24CE015	A rectangular beam is to be cut from a circular log of wood of diameter D. Find the ratio of dimensions for the strongest section in bending. Also write an algorithm to find the ratio of dimensions for the strongest section in bending.	STRENGTH OF MATERIALS	Prof.M.Srikanth
18	B24CE016	A cylindrical thin drum 800 mm in diameter and 4 m long is made of 10 mm thick plates. If the drum is subjected to an internal pressure of 2.5 MPa, develop an algorithm to determine its changes in diameter and length. Take E as 200 GPa and Poisson's ratio as 0.25.	STRENGTH OF MATERIALS	Prof.M.Srikanth
19	B24CE017	Two-close coiled helical springs wound from the same wire, butwithdifferent core radii having equal no. of coils are compressed between rigid plates at their ends. Develop a C Program to calculate the maximum shear stress induced in each	STRENGTH OF MATERIALS	Prof.M.Srikanth

		spring, if the wire diameter is 10 mm and the load applied between the rigid plates is 500 N. The core radii of the springs 100 mm and 75 mm respectively.		
20	B24CE018	Write a C program to find the angle of twist per metre length of a hollow shaft of 100 mm external and 60 mm internal diameter, if the shear stress is not to exceed 35 MPa. Take G = 85 GPa.	STRENGTH OF MATERIALS	Prof.M.Srikanth
21	B24CE019	A cylindrical vessel 2 m long and 500 mm in diameter with 10 mm thick plates is subjected to an internal pressure of 3 MPa. Develop an algorithm to calculate the change in volume of the vessel. Take E = 200 GPa and Poisson's ratio = 0.3 for the vessel material.	STRENGTH OF MATERIALS	Prof.M.Srikanth
22	B24CE020	State an expression for power transmitted by a circular shaft, A solid steel shaft has to transmit 100 kW at 160 r.p.m. Taking allowable shear stress as 70 MPa. Write a C program to find the suitable diameter of the shaft. The maximum torque transmitted in each revolution exceeds the mean by 20%.	STRENGTH OF MATERIALS	Prof.M.Srikanth
23	B24CE021	Implement sorting algorithms like merge sort, quicksort using arrays	Data Structures through C	Ms.K.S.Bhargavi
24	B24CE022	Library Management System: Store book information (title, author, ISBN) using a linked list. Use a queue to manage book borrowing requests. Implement functionality to return books and update availability status.		Ms.K.S.Bhargavi
25	B24CE023	Real-Time Stock Price Analysis	Data Structures through C	Ms.K.S.Bhargavi
26	B24CE024	Object of the game is to move all the disks over to Tower 1 to Tower 3. But you cannot place a larger disk onto a smaller disk. Collect the no. of disk with size. Create 3 stacks and move the disk. when moving disk, compare the values which is already in stack. If it is lesser, don't push the value. Otherwise push it. If it is greater, pop the value and push it into another stack. Apply the recursion till shift all disks from stack 1 to stack	Data Structures through C	Ms.K.S.Bhargavi
27	B24CE025	Implement sorting algorithms like bubble sort, insertion sort using arrays.	Data Structures through C	Ms.K.S.Bhargavi
28	B24CE026	Basic Calculator: Use a stack to store operators and operands while evaluating expressions. Implement functions for basic arithmetic	Data Structures through C	Ms.K.S.Bhargavi

		operations (addition, subtraction, multiplication, division).		
29	B24CE027	Student Management System: Store student information (name, roll no, class, cgpa, mobile number) using a linked list. Use a queue to manage book borrowing requests. Implement functionality to return books and update availability status.	Data Structures through C	Ms.K.S.Bhargavi
30	B24CE028	Multiple sorting in single program To develop a C Program to perform multiple sorting algorithms as per selection of the user. Student may apply functions for different algorithms. Program will collect user option. According to the option, switch case is used to call the corresponding function	Data Structures through C	Ms.K.S.Bhargavi
31	B24CE029	Tic-Tac-Toe Game: Represent the game board using a 2D array. Implement game logic with player turns and checking for winning conditions.	Data Structures through C	Ms.K.S.Bhargavi
32	B24CE030	Contact List: Store contact information (name, phone number, email) in a linked list. Implement search functionality using linear search or binary search depending on the list size.	Data Structures through C	Ms.K.S.Bhargavi
33	B24CE031	Text Editor with Undo/Redo: Utilize a stack to store editing actions (character insertions, deletions) for undo/redo operations.	Data Structures through C	Ms.K.S.Bhargavi
34	B24CE032	THE REAL PURPOSE OF EDUCATION : A DEPICTION OF RAHU'S REACTION TO HIS FATHER'S PREFERENCE TO RANK BASED EDUCATION IN RAJ KINGER'S LESSON 'FATHER DEAR FATHER'	English Communication and Report Writing	Ms. M.Lakma Kumari
35	B24CE033	ROLE OF CULTURAL ACTIVITIES IN STRENGTHENING RESUME	English Communication and Report Writing	Ms. M.Lakma Kumari
36	B24CE034	THEME AND ESSENCE IN BLAKE'S POEMS- A SPECIAL FOCUS ON 'A CRADLE SONG' AND 'THE ANGEL'	English Communication and Report Writing	Ms. M.Lakma Kumari
37	B24CE035	ROLE OF ENGLISH LANGUAGE LAB IN PREPARING STUDENTS CORPORATE FIT	English Communication and Report Writing	Ms. M.Lakma Kumari

38	B24CE036	IMPACT OF POLITE COMMUNICATION ON PEOPLE. DEVELOP CONVERSATION BETWEEN WHICH WOULD LEAVE POSITIVE EFFECT 1) A BUS CONDUCTOR AND A PASSANGER 2) A RECEPTIONIST AT A RESTAURANT AND A CUSTOMER 3) TWO VIEWERS AT A THEATRE	English Communication and Report Writing	Ms. M.Lakma Kumari
39	B24CE037	PREPARE A CHOREOGRAPHY SCRIPT ON THE POEM BY WILLIAM WORDSWORTH 'DAFFODILS'	English Communication and Report Writing	Ms. M.Lakma Kumari
40	B24CE038	DRUG ADDICTION- A SPECIAL FOCUS ON STUDENTS OF ENGINEERING COLLEGES	English Communication and Report Writing	Ms. M.Lakma Kumari
41	B24CE039	IMPACT OF MEDIA ON YOUTH	English Communication and Report Writing	Ms. M.Lakma Kumari
42	B24CE040	NETIONAL EDUCATION POLICY 2020- POSIBILITIES OF IMPLEMENTATION IN HIGHER EDUCATION	English Communication and Report Writing	Ms. M.Lakma Kumari
43	B24CE041	Application of Matrix theory: Single value decomposition method.	Matrix Theory and Vector Calculus	Dr.V.ANAND
44	B24CE042	Matrix application to a quadratic population model.	Matrix Theory and Vector Calculus	Dr.V.ANAND
45	B24CE043	Application of Newton's law of cooling.	Matrix Theory and Vector Calculus	Dr.V.ANAND
46	B24CE044	Eigen value problems arising from population models (Leslie model).	Matrix Theory and Vector Calculus	Dr.V.ANAND
47	B24CE045	Simultaneous differential equations with application to real world problems.	Matrix Theory and Vector Calculus	Dr.V.ANAND
48	B24CE046	Numerical solution of Initial value problem in ODE: Runge-Kutta 2^{nd} order method.	Matrix Theory and Vector Calculus	Dr.V.ANAND
49	B24CE047	Approximation solution with Taylor's method and Picard's method.	Matrix Theory and Vector Calculus	Dr.V.ANAND
50	B24CE048	Applications of vector calculus: Green's Theorem	Matrix Theory and Vector Calculus	Dr.V.ANAND
51	B24CE049	Applications of differential calculus: Finding Maxima and Minima.	Matrix Theory and Vector Calculus	Dr.V.ANAND
52	B24CE050	Approximation solution: Gauss elimination method and Gauss inversion method.	Matrix Theory and Vector Calculus	Dr.V.ANAND
53	B24CE051	Fitting an exponential curve and power curve	Matrix Theory and Vector Calculus	Dr.V.ANAND

Note:

1. The students should meet immediately the allotted course faculty for practicum and start working on the practicum with the guidance of course faculty.

2. To complete the Practicum, the student shall work in laboratories under supervision of allotted course faculty, in the allotted hours in the classwork timetable and also outside the class work hours during weekdays.
3. The course faculty are advised to guide the allotted students for practicum during the semester course work.

28/11/22

(Signature of class teacher)

(M. Lakma Kumari)

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