### M. S. Bidve Engineering College, Latur DBATU CA-1

Class: SY (IT) Subject: EL-I Date 02-03-2024 Time :3:30pm - 04.00pm Note: - 1) Solve any two questions

2) Each question carries five marks.

- 1. What does HTTP stand for? Explain http with its characteristics.
- 2. Explain web server and how it works.
- 3. What is a scripting language, and how does it differ from a compiled language?

### M. S. Bidve Engineering College, Latur DBATU CA-1

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(Dr. Babasaheb Ambedkar Technological University, Lonere) Mid Semester Examination – 2023-24(Part-II)

Sub: Computer Networks Class : TY CSE Dt.22/4/2024 max marks 20 time :60 min.

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Note : ---Solve any four Each question carry 5 marks.

Q.1 Explain Network software design issues in brief.

- Q.2 Discuss implementation of connection less service in computer networks.
- Q.3 Explain service primitives for connection oriented service in CN.
- Q. 4 A receiver receives a bit stream of 10111101100 where generator polynomial is  $G(x) = x^3 + 1$ . Apply a check to decide whether revd bit stream is affected by an error or not.
- Q.5 Explain framing in detail.
- Q.6 Explain classful addressing scheme in detail.
- Q.7 Draw header format of ipv4 and explain each field.

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### Mahatma Basweshwar Education society's M.S.Bidve Engineering College , Latur. UNIT TEST II

**Class-MCAFY** 

Date: -27/10/2023

15

10

Marks: -25 Subject: - PLC

### Q.1 Attempt any three of the following

- a. Explain structured programming and need for structured programming ?
- b. Explain programming with Invariants?
- c. Explain arrays with example?
- d. Explan record with synatx and example?
- e. Describe looping Constructs ?
- f. Explain programming with Invariants?



### 2. Write a short note on (Any 2)

- g. The role of basic types
- h. Sets with example
- i. Pointer

### Mahatma Basweshwar Education society's M.S.Bidve Engineering College, Latur.

### UNIT TEST II

### Class-MCAFY

Marks: -25	Subject: - PLC	Date: -27/10/2023	
			15

### Q.1 Attempt any three of the following

- a. Explain structured programming and need for structured programming ?
- b. Explain programming with Invariants ?
- c. Explain arrays with example?
- d. Explan record with synatx and example?
- e. Describe looping Constructs?
- f. Explain programming with Invariants?

### 2. Write a short note on (Any 2)

- g. The role of basic types
- h. Sets with example
- i. Pointer

part 2

#### UNIT TEST: -II

Date: -25/10/2023	Time: -1 hour	Sub: - D.S. Using C	Class: -MCAFY	Mark:-25
O.1) Solve the followi	ng questions (Any	3)		15 M.
a) Explain search	ing techniques with	i example		
b) Explain differe	ence between DFS	and BFS algorithm		
c) Explain algori	thm for kruskal wit	h suitable example		
d) Explain Single	e Source Shortest p	ath algorithm		
e) Search the Iter	n 56 from the giver	h list using binary search	technique.	
0 1 2	3 4 5 6	7 8		
10 12 24	29 39 40 51 5	6 69		
O.2) Write a short no	ote on (Any 2)			10 M.
a) Merge Sort A	lgorithm			
b) Bellman-ford	algorithm			
c) Prims Algorit	hm			
1) Colortion Sor	talgorithm			

d) Selection Sort algorithm

#### M.B. EDUCATION SOCIETY'S M.S.BIDVE ENGINEERING COLLEGE, LATUR. UNIT TEST: -II

	1 1	Cuby D.C. Hainer C	Class: MCAEV	Mark:-25
Date: -25/10/2023	Time: -1 hour	Sub: - D.S. Using C	ClassIVICAL' I	15 M
Q.1) Solve the following	ng questions (Any	3)		15 141.
<ul> <li>a) Explain searchi</li> </ul>	ing techniques with	n example		
<ul> <li>b) Explain differe</li> </ul>	ence between DFS a	and BFS algorithm		
c) Explain algorit	hm for kruskal wit	h suitable example		
d) Explain Single	Source Shortest pa	ath algorithm		
e) Search the Item	n 56 from the giver	h list using binary search	technique.	
0 1 2	3 4 5 6 7	6 69		
10 12 24	29 39 40 51 5	0 03		10 M.
Q.2) Write a short no	te on (Any 2)			10 1/4.
a) Merge Sort A	Igorithm			
b) Bellman-ford a	algorithm			
c) Prims Algorith	m			
d) Selection Sort	algorithm			
	ND	EDUCATION SOCIETY	21	
	M.B.	EDUCATION SOCIET	CELATUR	
	VI.S.DID VE EI	UNIT TEST - II	OD DIA COM	
	WI.S.BIDVE EI	UNIT TEST: -II	Class: -MCAFY	Mark:-25
Date: -25/10/2023	Time: -1 hour	UNIT TEST: -II Sub: - D.S. Using C	Class: -MCAFY	Mark:-25
Date: -25/10/2023 Q.1) Solve the follow	Time: -1 hour ing questions (An	UNIT TEST: -II Sub: - D.S. Using C y 3)	Class: -MCAFY	Mark:-25 15 M.
Date: -25/10/2023 Q.1) Solve the follow a) Explain search	Time: -1 hour ing questions (Am	UNIT TEST: -II Sub: - D.S. Using C y 3) th example	Class: -MCAFY	Mark:-25 15 M.
Date: -25/10/2023 Q.1) Solve the followi a) Explain search b) Explain differ	Time: -1 hour ing questions (An ning techniques with rence between DFS	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th cuickle axample	Class: -MCAFY	Mark:-25 15 M.
Date: -25/10/2023 Q.1) Solve the followi a) Explain search b) Explain differ c) Explain algori	Time: -1 hour ing questions (Any ning techniques wit rence between DFS ithm for kruskal wi	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example with algorithm	Class: -MCAFY	Mark:-25 15 M.
Date: -25/10/2023 Q.1) Solve the follow a) Explain search b) Explain differ c) Explain algori d) Explain Singl	Time: -1 hour ing questions (Any ning techniques with ence between DFS ithm for kruskal wi e Source Shortest p	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm using binary search	Class: -MCAFY	Mark:-25 15 M.
Date: -25/10/2023 Q.1) Solve the followi a) Explain search b) Explain differ c) Explain algori d) Explain Singl e) Search the Ite	Time: -1 hour ing questions (Any ning techniques with rence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm en list using binary search 7 8	Class: -MCAFY	Mark:-25 15 M.
Date: $-25/10/2023$ Q.1) Solve the following a) Explain search b) Explain differ c) Explain differ c) Explain algorithm of the search the Ite $0$ 1 2	Time: -1 hour ing questions (Any ning techniques with rence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give 3 4 5 6	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example path algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M.
Date: $-25/10/2023$ Q.1) Solve the following a) Explain search b) Explain differ c) Explain algorid d) Explain Single e) Search the Itee 0 = 1 = 2 10 12 24	Time: -1 hour ing questions (Am ning techniques with rence between DFS ithm for kruskal with e Source Shortest pr m 56 from the give 3 4 5 6 29 39 40 51	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example path algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M. 10 M.
Date: $-25/10/2023$ Q.1) Solve the follow a) Explain search b) Explain differ c) Explain algori d) Explain Singl e) Search the Ite 0 1 2 10 12 24 Q.2) Write a short no	Time: -1 hour ing questions (Any ning techniques with rence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give 3 4 5 6 29 39 40 51 1 ote on (Any 2)	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M. 10 M.
Date: $-25/10/2023$ Q.1) Solve the follow a) Explain search b) Explain differ c) Explain algorid d) Explain Singl e) Search the Ite 0 1 2 10 12 24 Q.2) Write a short not a) Merge Sort A	Time: -1 hour ing questions (Any ning techniques with rence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give 3 4 5 6 29 39 40 51 ote on (Any 2) Algorithm	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M. 10 M.
Date: $-25/10/2023$ Q.1) Solve the follow a) Explain search b) Explain differ c) Explain algorid d) Explain Singl e) Search the Ite 0 1 2 10 12 24 Q.2) Write a short not a) Merge Sort A b) Bellman-ford	Time: -1 hour ing questions (Any ning techniques with rence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give 3 + 5 = 6 29 39 40 51 ote on (Any 2) Algorithm algorithm	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M. 10 M.
Date: $-25/10/2023$ Q.1) Solve the follow a) Explain search b) Explain differ c) Explain differ d) Explain Singl e) Search the Ite 0 1 2 10 12 24 Q.2) Write a short not a) Merge Sort A b) Bellman-ford c) Prims Algorit	Time: -1 hour ing questions (Any hing techniques with ence between DFS ithm for kruskal wi e Source Shortest p m 56 from the give 3 + 5 - 6 29 39 40 51 ote on (Any 2) Algorithm hm	UNIT TEST: -II Sub: - D.S. Using C y 3) th example and BFS algorithm th suitable example bath algorithm en list using binary search 7 8 56 69	Class: -MCAFY	Mark:-25 15 M. 10 M.



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### Unit Test-I Time Table M.C.A.F.Y I Semester)

The Examination will be held on days & dates mentioned below

			Unit Test-I	
First Session: 11.15 am to 12.15 pm Second Session: 12.45 pm to 01:45 pm				
Subject Code	Date	Day	Paper Title & Paper No.	Timing
MCA-R101		Monday	Programming Logic Concept	11:15 to 12:15
MCA-R102	25/09/2023	Monday	Data Structure using C	12:45 to1:45
			Concerning tion & Architecture	11:15 to 12:15
MCA-R103	_	Tuesday	Comp organization & Architecture	12:45 to 1:45
MCA-R104	26/09/2023	Tuesday	Introduction to Mgnt Functions	12.45 101.15
MCA-R105	27/09/2023	Wednesday	Mathematical Foundation for Comp Sci	11:15 to 12:15

### Important Instructions for Exam:-

- This exam is compulsory for all students.
- The Exam will be conducted in the college campus.
- Unit Test is for 25 marks.
- Uniform and ID Card is Compulsory.

Exam Incharge

Principal

PRINCIPAL M.S. Bidve Engineering Colle Latur.



### **MSE-Examination**

Q4. Explain Major Entrepreneurial Competencies.

Q5. Explain Classification of Small Scale Industry.



### CA-II Liamination

Date: 02/12/2023

Max Marks 10

Subject Patre Development

Distriction - 50 min. Class: B Leich Final year (Mech) 707 X 107 Markes)

Solve any Two Questions

Q | Explain Concept of Project Approximi

Q.2 Explain Project Appresivel Method

Q.3 Explain Cash flow as costs and homefits.



**MSE-Examination** 

Date:- 12/10/2023 Max.Marks:-20 Subject:- TOM-II

Duration:- 60 min. Class:- T.Y. (Mech)

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#### Solve Any Four. (4 X5 Marks)

Q1. Explain Terminology of Spur Gears.

Q2. Explain in details classification of gears.

Q3. Explain in detail condition for the transmission of maximum power.

Q4. Find the power transmitted by a belt running over a pulley of 600 mm diameter at 200 rpm. The coefficient of friction between the belt and the pulley is 0.25, angle of lap  $160^{\circ}$  and maximum tension in the belt is 2500N.

Q5.A shaft rotating at 200 rpm drives another shaft at 300 rpm and transmits 6KW through a belt. The belt is 100mm wide and 10mm thick. The distance between the shafts is 4m. The smaller pulley is 0.5m in diameter. Calculate the stress in the belt, if it is A) an open belt drive B) A cross belt drive. Take  $\mu$ =0.3

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M.S.BIDVE ENGINEERING COLLEGE, LATUR

Class: S.F. (Mech)	CA-II	Date:-08/12/2023
Class: S.E. (Ween)	Marks: 10	Time:- 30 min
Subject. mernodynamics		(0572)

#### Q.1. Solve any two

(05X2)

a) An inventor claims to have developed an engine that operates between a source at 450 K and a sink at 280K, and is capable of delivering 540 KJ of work for every 1200Kj of heat received. As a patent officer would you issue a patent for such an engine?

b) Three Carnot heat engines are arranged in series. The first engine takes 4000kj of heat from a source at 2000K and delivers 1800 KJ of work; the second and third engine delivers 1200 KJ and 500 KJ of work respectively. Make calculations for the exhaust temperature of

the second and third Carnot engine.

c) Explain the equivalence of Clausius statement to kelvin planks statement.

d) Explain Carnot cycle with P-V diagram.

e) Write a note on PPM-I

f) State and prove Carnot theorem.

## DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

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### M.S.BIDVE ENGINEERING COLLEGE, LATUR

Class: F.E. (B)	Mid Semester Test	Date:-28/10/2023		
Subject: Energy & Env. Engg.	Marks: 20	(08)		
Q.1. Solve any one a)With the help of schematic di	agram, explain the operation of	Nuclear power plant.		
b) Write note energy conservation?		(682)		
Q.2. Solve any two		( 0.2)		
a) Explain briefly about the Tid	al power plant with neat sketch	?		
b) Explain the working of Magn	eto hydro Dynamic (MHD) gene	erator.		
c) Explain Bio-gas power plant	with neat sketch.			

d) Explain Ocean thermal power plant with neat sketch.

Q,

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### M.S.BIDVE ENGINEERING COLLEGE, LATUR

Class: F.E. (B)	Mid Semester Test	Date:-28/10/2023
Subject: Energy & Env. Engg.	Marks: 20	Time:- 1 hr
0.1. Solve any one		(08)
a)With the help of schematic dia	agram, explain the operation of	Nuclear power plant.
b) Write note energy conservation?		
Q.2. Solve any two		(6X2)
a) Explain briefly about the Tida	al power plant with neat sketch	?
b) Explain the working of Magn	eto hydro Dynamic (MHD) gen	erator.
c) Explain Bio-gas power plant	with neat sketch.	
	1	

d) Explain Ocean thermal power plant with neat sketch.

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### M.S.BIDVE ENGINEERING COLLEGE, LATUR

Class: F.E. (B)	Mid Semester Test	Date:-28/10/2023
Subject: Energy & Env. Engg.	Marks: 20	Time:- 1 hr
Q.1. Solve any one		(08)
a)With the help of schematic diag	ram, explain the operation	n of Nuclear power plant.
b) Write note energy conservation?		
Q.2. Solve any two		(6X2)
a) Explain briefly about the Tidal	power plant with neat ske	etch?
b) Explain the working of Magnet	to hydro Dynamic (MHD) g	generator.
c) Explain Bio-gas power plant w	ith neat sketch.	
	1	

d) Explain Ocean thermal power plant with neat sketch.

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## M.S.BIDVE ENGINEERING COLLEGE, LATUR

Class: S.E. (Mech)	Mid Semester Test	Date:-27/10/2023 Time:- 1 hr
Subject: Thermodynamics		( 7X2)
Q.1. Solve any two a) With the help of a sche b) Write a note Thermod c) Write a note on the Qu d) Define steady flow. Wi	ematic diagram, explain the operation ynamics point of view. assi-static process. rite the SFEE on a time and mass basis	of the optical pyrometer.
e) Explain the different ty	ypes of systems.	(06)
Q.2. Solve any one a) A composite glass tube and 80cm of oil. Determininterface and mercury wa	e whose upper end is open contains 50 ne the gauge pressure (a) at the base a ater interface. Take the specific gravit	Ocm of Hg, 50 cm of water, and (b) at the water oil y of Hg = 13.6, and the
specific gravity of oil = 0.	.8.	
b) Convert the following	pressure into a bar.	
i) 750 mm of Hg;	iv) 440 KPa	
ii) 200 cm of H2O;	v) 2 MPa	
iii) $33 \text{ N/mm2}$	vi) 5 N/cm2	

c) Define the first law of thermodynamics and write its limitations.

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### M.S.BIDVE ENGINEERING COLLEGE, LATUR

	Mid Semester Test	Date:-27/10/2023
Class: S.E. (Mech)		Time:- 1 hr
Subject: Thermodynamics	Marks: 20	(782)
		(///2)

### Q.1. Solve any two

a) With the help of a schematic diagram, explain the operation of the optical pyrometer.

b) Write a note Thermodynamics point of view.

c) Write a note on the Quasi-static process.

d) Define steady flow. Write the SFEE on a time and mass basis.

e) Explain the different types of systems.

### Q.2. Solve any one

a) A composite glass tube whose upper end is open contains 50cm of Hg, 50 cm of water, and 80cm of oil. Determine the gauge pressure (a) at the base and (b) at the water oil interface and mercury water interface. Take the specific gravity of Hg = 13.6, and the specific gravity of oil = 0.8.

b) Convert the following pressure into a bar.

iv) 440 KPa i) 750 mm of Hg;

- v) 2 MPa ii) 200 cm of H2O;
- vi) 5 N/cm2 iii) 33 N/mm2

c) Define the first law of thermodynamics and write its limitations.

(06)



MID SEM EXAM (2023-24 Part-I)



Sem: III

Course: B. Tech in Computer Science Engineering Subject Name: Computer Architecture and Organization Subject Code: BTCOC304 Time:- 11.30 to 12.30 PM Date:- 26/10/2023 Max Marks: 20

### Q. 1 Solve Any FOUR of the following.

- 1) Explain CISC and RISC architecture with neat diagram.
- 2) Explain different addressing modes with neat diagram and example in detail.
- 3) Convert (200.225) in IEEE 754 with single and double precision format floating point representation.
- 4) Explain instruction cycle state diagram with interrupts.
- 5) Explain flowchart for booth's algorithm for twos complement multiplication and perform multiplication with example (5\*3).
- 6) Explain flowchart for unsigned binary division and perform division with example (6/3).
- Y=0.3\*10^3 7) Perform floating point numbers arithmetic operations.  $X = 0.4*10^{2}$

Marks 4\*5



Computer Science Engineering Department

### Mid-Sem Examination

Second Year CSE	Part -I 2023-24	Data Structure
Date : 30/10/2023	Marks : 20	Time: 60 Mins.

### Q1. Attempt the following and write the correct option. (8x1=8)

1.Which data structure is used in breadth first search of a graph to hold nodes? B. Tree C. Stack D. Oueue A. Array 2. Identify the data structure which allows insertions at both ends of the list but deletion at only one end. C. Output restricted dequeue D. Input restricted A. Stack B. Priority queues dequeue 3. Circular Queue is also known as C. Rectangle Buffer D. Curved Buffer A. Ring Buffer B. Square Buffer 4. If the elements "A", "B", "C" and "D" are placed in a queue and are deleted one at a time, in what order will they be removed? D. ABDC A, ABCD C. DCAB B. DCBA 5.Consider an implementation of unsorted singly linked list. Suppose it has its representation with a head pointer only. Given the representation, which of the following operation can be implemented in O(1) time? i) Insertion at the front of the linked list ii) Insertion at end of the linked list iv) Deletion of last node of linked list iii) Deletion of front node of the linked list D. I, II and IV C. I, II and III B. I and III A. I and II 6. In linked list each node contain minimum of two fields. One field is data field to store the data second field is? C. Pointer to node D. Node A. Pointer to character B. Pointer to integer 7.What is the postfix expression for the corresponding infix expression? a+b\*c+(d\*e) D.  $abc^{*}+(de)^{*}+$ C. a+bc\*de+\* A. abc\*+de\*+ B. abc+\*de\*+ 8. What does 'stack overflow' refer to? A. accessing item from an undefined stack B. adding items to a full stack C. removing items from an empty stack D. index out of bounds exception (3x4=12)Q. Attempt the following (any three). i) Write an algorithm to delete the head node of singly linked list. ii) Explain circular queue with neat diagram. iii) Give an algorithm for POP in stack. iv) Give any one application of queue. v) Show how following operations will be performed on a stack with neat diagram. Show the

output of each operation.

PUSH(4), PUSH(7), PUSH(3), POP, PEEP, POP, PUSH(11), PEEP

vi) Explain doubly linked list with neat diagram. Also give the C declaration for Node in doubly linked list.

 $\Rightarrow \Rightarrow \forall Wish you all the Best \Leftrightarrow \Leftrightarrow \Leftrightarrow$ 

Page 1





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Marks-25

### UNIT TEST-I Time-1hour Class:- MCAFY

### Date:27/02/2024 Sub:-UOS Tim

NOTE: Attempt any 5 from the following

### Answer the following questions:-- (5M each)

1 Explain OS as Resource Manager.

- 2.Explain system call for directory management.
- 3.Explain shell, protection..
- 4.Explain Monolithic system.
- 5.Explain Microkernels.
- 6.Explain virtual machines.



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### **UNIT TEST-I**

Date:27/02/2024 Sub:-UOS Time-1hour Class:- MCAFY Marks-25

### NOTE: Attempt any 5 from the following

Answer the following questions:-- (5M each)

#### 1.Explain OS as Resource Manager.

- 2.Explain system call for directory management.
- 3.Explain shell, protection..
- 4.Explain Monolithic system.
- 5 Explain Microkernels.
- 6. Explain virtual machines.



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### UNIT TEST-I

### Date:27/02/2024 Sub:-UOS Time-1hour Class:- MCAFY Marks-25

### NOTE: Attempt any 5 from the following

### Answer the following questions:-- (5M each)

- 1 Explain OS as Resource Manager.
- 2.Explain system call for directory management.
- 3.Explain shell, protection ...
- 4.Explain Monolithic system.
- 5.Explain Microkernels.
- 6. Explain virtual machines.



**Mid Sem-Examination** 

Date-24/04/2024 Max.Marks:-20 Subject: - TOM-I

Duration: - 60 Min. Class:- T.Y. (Mech)

Q.1.Explain Classification of Followers.

#### OR

Q.2. Explain Terms used in Cams

### Solve Any Two.

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Q.3.Draw the profile of the cam when the roller follower moves with cycloidal motion during out stroke and return stroke, as given below

1.Out stroke with maximum displacement of 32mm during 180° of cam rotation.

2. Return stroke for the next  $150^{\circ}$  of cam rotation.

3.Dwell for the remaining  $30^{\circ}$  of cam rotation.

The minimum radius of the cam 15mm and the roller diameter of the follower is 10mm. The axis of the follower is offset by 10mm towards right from the axis of cam shaft.

Q.4. A cam is to be designed for a knife edge follower with the following data

1.cam lift=40mm during 90° of cam rotation with SHM

2.Dwell for the next  $30^{\circ}$ 

3. During the next  $60^{\circ}$  Of cam rotation the follower return to its original position with SHM

4.Dwell during the remaining  $180^{\circ}$ 

Draw the profile of the cam when

- A) The line of stroke of the follower passes through the axis of the cam shaft.
- B) The line of stroke is offset 20mm from the axis of the cam shaft.

The radius of the base circle of the cam is 40mm.

**Q.5.**Design a cam for operating the exhaust valve of an oil engine. It is required to give equal uniform acceleration and retardation during opening and closing of the valve each of which corresponding to  $60^{\circ}$  of cam rotation.the valve must remain in the fully open position for  $20^{\circ}$  of cam rotation.

The lift of the valve is 38mm and the least radius of the cam is 40mm.the follower is provided with a roller of radius 20mm and its line of stroke passes through the axis of the cam.

### 04 Marks

2 X 8 Marks



Date-02/03/2024 Max.Marks:-10

> **CA1-Examination** Subject: - Robotics

Duration: - 30 min. Class:- T.Y. (Mech)

-----Solve

Any Two. (2 X5 Marks)

Q1. Explain in brief Robot Anatomy.

Q2. Explain with neat sketch Touch Sensors.

Q3. Explain in details types of Sensor.



**CA1-Examination** 

Date-02/03/2024 Max.Marks:-10 Subject: - TOM-I

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Duration: - 30 min. Class:- S.Y. (Mech)

### Solve Any Two. (2 X5 Marks)

Q1. Define & explain Kinematic Link, Kinematics Pair, Kinematics Chain

Q2. Explain in details types of joint in a chain.

Q3. Explain with neat sketch Inversion of four bar chain



**CA1-Examination** 

Date-02/03/2024 Max.Marks:-10 Subject: - EEE

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Duration: - 30 min. Class:- F.Y. (D)

Solve Any Two. (2 X5 Marks)

Q1. Explain Thermal Power Plant With Their Advantages & Disadvantages

Q2. Explain Hydro Power Plant With Their Advantages & Disadvantages

Q3. Explain with neat sketch Various Component of Nuclear Power Plant.



M.S.Bidve Engineering College,Latur MID Sem Examination Subject:- Robotics

Date:- 23/04/2024 Max.Marks:-20

Duration:- 60 min. Class:- T.Y. (Mech)

Solve Any Four.

(4 X 5 Marks)

Q1.Explain Mechanical Gripper.

Q2.Explain Tool as End Effectors.

Q3.Explain Proximity Sensors.

Q4.Explain any two types of joint in a robot.

Q5.Explain any one structural configuration for body and arm motion.

A) Cartesian (Rectangular) Configuration

B) Spherical(Polar) Configuration



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Date:- 23/04/2024 min. Max.Marks:-20 	MID Sem Examination Subject:- EEE	Duration:- 60 Class:- F.Y. (D)
Solve Any Four.		(04 × 5M-1 )
Q1.Explain TPG& TEG W	ith neat sketch.	(04 x Smarks)
Q2.Explain Solar Energy V	/ith neat sketch.	
Q3.Explain Biogas & Biom	ass With neat sketch.	
Q4.Explain Wind Energy &	Tidal Energy With neat sketch	
Q5.Explain MHD With neat	sketch.	

(Dr. Babasaheb Ambedkar Technological University, Lonere)

#### Mid Semester Examination – 2023-24(Part-II)

Sub: Compiler Design Max. Marks: 20 (Dt: 22/04/2024) Duration: 1Hr (Attempt any 4)

(All questions carry equal marks)

- 1. Explain diagrammatically the language processing model using compiler.
- 2. Find tokens with reasonable attribute values for the following C-program:

{

}

int main()

int a=10, b=20; printf("Sum is : %d",a+b);

return(0);

- 3. What are the parser error recovery strategies? Explain in detail.
- 4. What is left factoring? Do left factoring in the following grammar:  $S \rightarrow a \mid ab \mid abc \mid abcd$
- 5. Define the rule for elimination of left recursion. Eliminate the left recursion from the following grammar:

$$E \rightarrow E + T | T$$
  
 $T \rightarrow T + F | F$   
 $F \rightarrow (E) | id$ 

6. Compute First and Follow for the following grammar:



7. Construct a Predictive parsing table for the above grammar from Q.6.