GOVERNMENT ENGINEERING COLLEGE BILASPUR(CG)

Offline [redacted] Class Test-1(2023)

Branch: Computer Science Engineering (BTECH) **Semester-6th**
Subject: Internet of Things **Subject Code: C022632(022)**
Date: 01/04/2023 **TIME: -3:00 PM-4:30 PM**
MAX. MARKS: 20

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NOTE:-Q. No. (a) is compulsory and attempts any two from (b), (c) & (d).

UNIT	Qu. No.	Questions	Marks allotted	CO	KL
1.	(a)	Define Big Data and how Big Data helps in IOT.	2	CO-1	2
	(b)	Describe the Smart Grid network based on IOT in details also explain its importance in our life.	4	CO-1	3
	(c)	Write Short notes: (any 1) i. Challenges in IOT ii. CPS	4	CO-1	2
	(d)	Describe the applications of IOT and how IOT is used in different application areas .	4	CO-1	3
2.	(a)	What is Cloud? How many types of Cloud are available in Cloud Computing?	2	CO-5	2
	(b)	How we can use Cloud services for improve our business. Also explain SaaS, PaaS and IaaS Service Models of Cloud Computing.	4	CO-5	3
	(c)	Give a brief description on Evolution of Cloud Computing	4	CO-5	3
	(d)	Describe the Cloud Computing Architecture with is Components.	4	CO-5	3

GOVERNMENT ENGINEERING COLLEGE,
BILASPUR (CG)

Class Test -I (2022-2023)

Branch- Computer Science and Engineering Sem : 6th

Subject: Compiler Design **Subject Code:022611(022)**

Date : 03/04/2023 **Time** –11: 30 AM- 1:00 PM

Maximum Marks: 20

Note- From each question attempt any two parts from (b) (c) and (d); part (a) is compulsory.

UNIT	Qu.No.	Questions	Marks allotted	CO	KL
1.	a.	**Define Single pass and Multi-pass compiler.**	2	CO-1	2
	b.	**Explain Various phases of Compiler with suitable example.**	4	CO-1	3
	c.	**Describe the Compiler Construction tools .**	4	CO-1	3
	d	**What is LEX? Explain with suitable code.**	4	CO-1	3
2.	a	**Define Context Free Grammar with Example.**	2	CO-2	2
	b.	**Left factoring the given Grammar** **E→ E+T /T** **T → T x F/ F** **F → (E) / id** **Also Find First () fallow() .**	4	CO-2	3
	c.	**Write Rules to find First () and also find First () of Given Grammar.** **S→aAd/aB** **A→ a / ab** **B→ ccd /ddc**	4	CO-2	3
	d.	**S →AaAb / BbBa** **A→ε** **B→ε** **Test whether the given grammar is LL(1) or not .**	4	CO-2	3

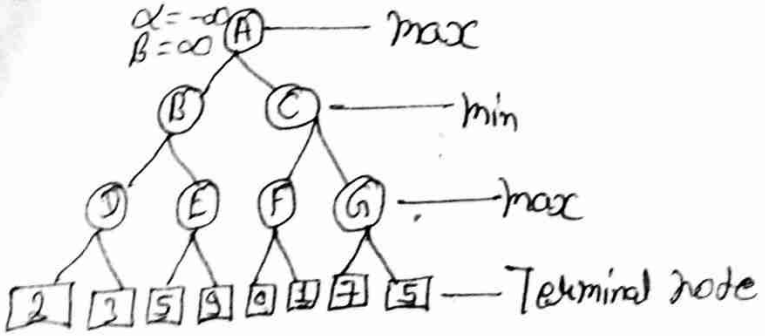
----------**Best of Luck**----------

GOVERNMENT ENGINEERING COLLEGE, BILASPUR (CG)

Class Test – I (April-2023)

Branch:- Computer Science & Engg. **Semester: VI (B Tech)**
Subject: Artificial Intelligence and Expert Systems **Subject Code: C022613(022)**
Date: 01/04/2023 **Time: – 11:30AM - 01:00PM**

Maximum Marks 20
Note-From each unit attempt any two parts from (b) (c) and (d); part (a) is compulsory.

Q.		UNIT-1	Marks allotted	CO	KL
1	(a)	What is Heuristic search? Explain with suitable example.	2	CO1	2
	(b)	Explain Hill climbing. In what situation it fails? What techniques can be applied to overcome these difficulties?	4	CO1	3
	(c)	Trace the constraint satisfaction procedure solving the following crypto arithmetic problem. SEND + MORE MONEY	4	CO1	4
	(d)	Give the state space representation of missionaries and cannibals problem which state that, there are 3 missionaries and 3 cannibals one side of river, they all want to cross the river but missionaries are not sure of cannibals intentions, so missionaries want to make a trip such that count of missionaries on either side is never less than cannibals. the only boat available holds two people at a time. How can each cross the river without missionaries being eaten by cannibals?	4	CO1	4
		UNIT-1 & 2			
2	(a)	Define propositional logic with suitable example.	2	CO2	2
	(b)	Prove given expression is tautology. (a) $(b \wedge (b \rightarrow c)) \rightarrow c$ (b) $(\neg (b \rightarrow c) \wedge \neg (\neg b \rightarrow (c \vee d))) \rightarrow (\neg c \rightarrow d)$	4	CO2	3
	(c)	Explain depth-first search technique along with its algorithm. What are advantage and drawback of depth-first search?	4	CO1	4
	(d)	How alpha-beta cutoff better improve the min-max method explain with given example also find the value of each node. 	4	CO1	4

ALL THE BEST

GOVERNMENT ENGINEERING COLLEGE, BILASPUR (CG)

Class Test –I (2022-2023)

Branch- Computer Science and Engineering Semester: 6th

Subject: DATA STRUCTURE AND ALGORITHM, Subject Code:C000623(022)

Maximum Marks 20 **Date- 29/3/2023 Time-3:00pm to 4:30pm**

NOTE:-Q.No.1 is compulsory(2 marks) and attempt any two from the remaining (4 marks).

		PART-1	Marks allotted	CO	kl
1	(a)	Explain time and space complexity?.	2	C000623-1	2
	(b)	Explain asymptotic notations and its type?	4	CB000315-1	3
	(c)	Given an array arr[1.....10][1.....15] with a base value of 100 and the size of each element is 1 byte i memory find the address of arr[8][6] with the help of column major order?	4	CB000315-1	3
	(d)	Write an algorithim to insert new node at the beginning , at the middle postion ad at the end of a single lined list?	4	CB000315-1	3
2	(a)	What is abstract data type?	2	CB000315-2	2
	(b)	Convert the following infix expression into postfix expression using stack **2*3/(2-1)+5*3**?	4	CB000315-2	3
	(c)	What is stack? And also Explain push ad pop operation of stack with algorithm and diagram?	4	CB000315-2	3
	(d)	Explain implemention of stack?	4	CB000315-2	3

3/4 II

GOVERNMENT ENGINEERING COLLEGE, BILASPUR (CG)

Class Test -I (2022-2023)

Branch- Computer Science and Engineering , Semester: 6th

Subject: Software Engineering and Project Management, Subject Code: C022611(022)

Date 3rd April 2023 **Time** – 3:00 pm- 4:30 pm

Maximum Marks 20

Note- From each question attempt any two parts from (b) (c) and (d); part (a) is compulsory

UNIT 1	**Marks**	**CO**	**KL allotted**
1 (a) Explain the evolution of waterfall model in details.	2	C022611-1	2
1 (b) Discuss three R – Reuse, Reengineering and Retooling briefly.	4	C022611-1	3
1 c. Briefly describe extreme programming and serum of Agile Development.	4	C022611-1	3
1 (d) Discuss the first two phases of the life cycle process and also discuss the evolution of the life cycle artifact sets.	4	C022611-1	3
UNIT 2			
3.(a) Explain the types of requirement engineering	2	C022611-2	3
(b) Demonstrate the case study of SRS approach.	4	C022611-2	3
c. Briefly differentiate between requirement analysis and requirement verification.	4	C022611-2	3
(d) Describe briefly about the Requirement Elicitation	4	C022611-2	3

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ALL THE BEST