AMC ENGINEERING COLLEGE, BENGALURU – 560083

Department of Computer Science and Engineering-AI & ML

I Internal Test, V SEM BE (2024-2025)

Course: RM & IPR
Course Code: BRMK557

Max Marks: 40
Time: 75 Min

Answer any *TWO* Full questions (Either 1 or 2 and 3 or 4)

Q. No		Question	Marks	Cos	Po/ Pos	Levels
1	a.	Define engineering research and list its aims and objectives.	7	CO1	PO1,PO 2,PSO1, PSO2	L1
	b.	What is the meaning of ethics and why is it important in the practice of engineering research?	7	CO1	PO1,PO 2,PSO1, PSO2	L1
	c.	Compare descriptive research versus analytical research with examples	6	CO1	PO1,PO 2,PSO1, PSO2	L2
		OR				
2	a.	Define the term research and explain the research flow cycle (flowchart)with a relevant diagram.	7	CO1	PO1,PO 2,PSO1, PSO2	L1
	b.	What are the factors that motivate you to do engineering research?Briefly explain?	7	CO1	PO1,PO 2,PSO1, PSO2	L1
	c.	Compare i) applied and fundamental research ii)Quantitative and Qualitative research	6	CO1	PO1,PO 2,PSO1, PSO2	L2
3	a.	What are the primary goals of conducting a literature review in academic research?	7	CO2	PO1,PO 2,PSO1, PSO2	L1
	b.	Explain how does the new and existing knowledge can contribute to the research process? Explain with relevant points.	8	CO2	PO1,PO 2,PSO1, PSO2	L2
	c.	What are datasheets and write their contents?	5	CO2	PO1,PO 2,PSO1, PSO2	L1
		OR				
4	a.	Explain the various steps involved in the critical and creative reading process.	7	CO2	PO1,PO 2,PSO1, PSO2	L1
	b.	Explain how knowledge flows through a citation network using a flow diagram.	8	CO2	PO1,PO 2,PSO1, PSO2	L2
	c.	Define the term Citation. Describe the three functions of Citation.	5	CO2	PO1,PO 2,PSO1, PSO2	L1

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Department of CSE-AIML

I Internal Test, 5th SEM BE (2023-2024)

Sub Name: Computer Networks **Max Marks: 40**

Sub code: BCI502 **Time: 75 Min**

Answer any of the Two Full questions (Either 1 or 2 and 3 or 4)

Q.No	Question	Marks	Cos	Pos/PSO	Blooms cognitive level
1. a	Explain OSI reference model with diagram.	10	CO1	PO2	L2
b	Define computer network and illustrate the types of computer networks.	10	CO1	PO1	L1
	OR				
2.a	Explain the concept of error detection and correction	10	CO2	PO2	L2
b	Describe block coding with example	10	CO2	PO2	L2
3. a	Explain the types of guided transmission media with example	10	CO1	PO2	L2
b	Describe packet switching and its types.	10	CO1	PO2	L2
	OR				
4. a	Explain cyclic codes with example.	10	CO2	PO2	L2
b	Discuss data link layer with framing.	10	CO2	PO2	L2

AMC ENGINEERING COLLEGE, BENGALURU – 560083
Department of CSE-AIML

I Internal Test –V SEM BE (2024-25)

Course Name: Software Engineering & Project Management **Course code: 22CS51**
Max Marks: 40 **Time: 75 Min**

Answer any of the Two Full questions (Either 1 or 2 and 3 or 4):

Q.No	Question	Marks	Cos	Pos/ PSO	Blooms cognitive level
1. a	Explain about the changing nature of Software?	10	CO1	PO1	L1
b	Explain Waterfall Model, also the problems encountered when waterfall model is applied?	10	CO2	PO2	L2
	OR				
2.a	Explain the software process framework?	10	CO1	PO1	L1
b	Explain the development of use-case with a diagram and mention its advantages?	10	CO2	PO2	L2
3. a	Explain Requirement Elicitation with example.	10	CO1	PO1	L1
b	Explain the various analysis rules of thumb?	10	CO2	PO2	L2
	OR				
4. a	Describe Spiral model of Software development life cycle in with neat diagram	10	CO2	PO2	L2
b	Explain the input and output analysis with a relevant diagram?	10	CO1	PO1	L1

CO 1. Understand the activities involved in software engineering and analyze the role of various process models
CO 2. Explain the basics of object-oriented concepts and build a suitable class model using modeling techniques

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I Internal Test, V SEM BE (2024-2025)

Max Marks: 40
Time: 75 Min

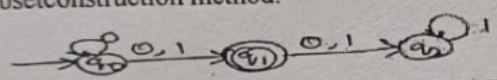
Course: TOC
Course Code: BCS502

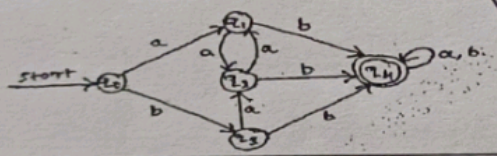
Answer any of the Two Full questions (either 1 or 2 and 3 or 4)

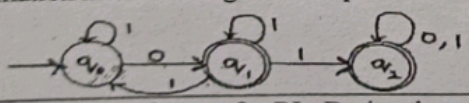
Q.No	Question	Marks	COs	POs/ PSO	Blooms cognitivel evel
1.a	Explain the following terms with example: Alphabets, Power of an alphabet & Concatenation of strings Languages and Kleen Star.	10	CO1	PO1,PO2	L2
b	Design DFA for the given languages on $\sum = \{0, 1\}$ a. All strings which begins with 01 b. Obtain DFSM to accept the strings of 0's and 1's ending with 101 c. Obtain a DFA to accept the language having substring 1011 d. Obtain a DFA to accept the language L={W:W has even number of 1's and number of 0's is a multiple of 3}	10	CO1	PO1,PO2	L3
	OR				
2.a	Convert the following NFA to its equivalent DFA using Lazy construction:	10	CO1	PO1,PO2	L2
b	Build a DFA from the given Є-NFA:	10	CO1	PO1,PO2	L3
3.a	Design the equivalent DFA for the given NFA by using Subsetconstruction method:	10	CO2	PO1,PO2	L3
b	Build the minimized DFA for the following: with Є → without	10	CO2	PO1,PO2	L3
	OR				
4.a	Compute Regular Expression for the following automaton using state elimination method along with the procedure:	10	CO2	PO1,PO2	L3
b	Define Pumping lemma for RL. Derive the pumping lemma theorem and Show that L={an!|n>=0}is not regular.	10	CO2	PO1,PO2	L3

Δ	0	1
->q0	{q0, q1 }	{ q1}
*q1	{ q2}	{ q2}
q2	ϕ	{ q2}

	Є	0	1
->p	r	q	p,r
q	ϕ	p	ϕ
*r	p,q	r	p







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Department of Computer Science and Engineering & AIML

I Internal Test V SEM B.E (2023-2024)

Course Name: Computer Vision **Max Marks: 40**
Course code: BCI515A **Time: 75 Min**

Answer any of the Two Full questions:

Q. No	Question	Marks	Cos	POs / PSO	Level
1. a	What is computer vision? provide 5 examples of computer vision	10+10	CO1	PO2, PO1	L2
b	Explain Fourier transform and its properties		CO2		L2
	OR				
2.a	Explain digital camera in image processing.	10+10	CO1	PO1, PO1	L2
b	Write and explain Gaussian and Laplacian transformation algorithm		CO2		L2
3. a	Explain BRDF with example.	10+10	CO1	PO1, PO2	L2
b	What is image processing? Explain with example.		CO2		L3
	OR				
4. a	Explain filtering with example	10+10	CO1	PO1, PO2, PO3	L2
b	What is geometric transformation? Explain its application with examples(types)?		CO2		L3