GTE

K. S. R. M. COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech I Mid Term Examinations of June – 2024					Dept: CE (GTE) Academic Year 2023 – 2024
Subject code	:	2212201	Subject: Experimental Geomechanics		
Mid Term	:	I	Marks : 40	Regulations : R22 PG	Duration : 02 Hrs
Year	:	I	Semester : II	Section :	Date : 11.06.2024 FN

****Note: Answer the following questions**
All questions will carry equal Marks**

Q. No		Questions	Marks	BL	CO
1.	a.	Explain about the scope and objectives of exploration?	05	L2	CO1
	b.	Explain about the preliminary and detailed design of exploration?	05	L2	CO1
2.		Describe open excavation methods of exploration. What are their advantages and disadvantages?	10	L1	CO2
3.	a.	Explain in detail about wash boring method?	05	L2	CO2
	b.	Explain in detail about percussion drilling?	05	L2	CO2
4.		What are the factors that affect the sample disturbance? How are these effects minimized?	10	L1	CO3

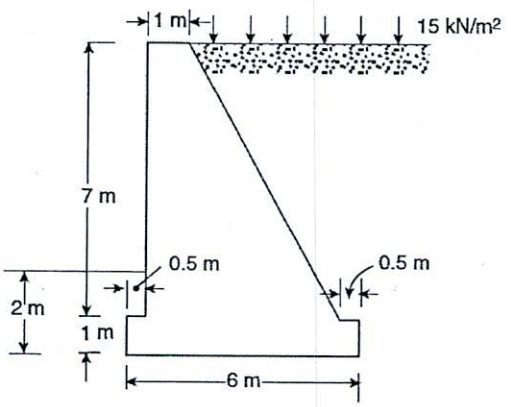
1-Remembering, 2-Understanding, 3-Applying,
4-Analyzing, 5-Evaluating, 6-Creating

Faculty In-Charge

K. S. R. M. COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech I Mid Term Examinations of June – 2024			Dept:	CE (GTE)
			Academic Year	
			2023 – 2024	
Subject code	:	2212202	Subject: Earth Retaining Structures	
Mid Term	:	I	Marks : 40	Regulations : R22 PG	Duration : 02 Hrs
Year	:	I	Semester : II	Section :	Date : 12.06.2024 FN

****Note: Answer the following questions**
All questions will carry equal Marks**

Q. No		Questions	Marks	BL	CO
1.	a.	Explain about the Coulomb's earth pressure theory?	05	L2	CO1
	b.	Explain about the Rankine's earth pressure theory?	05	L2	CO1
2.		Check the stability of the concrete retaining wall shown in Figure. The backfill material is a mixture of sand and gravel with the following properties: γ = 19.6 kN/m^3 and φ = 33°. The tangent of the coefficient of friction between the concrete and the soil is 0.48. The unit weight of concrete is 2.5 kN/m^3. The retaining wall is placed on a very dense gravelly bed with an allowable soil pressure of 380 kN/m^2.	10	L3	CO2
3.		Discuss about the design considerations for a mechanically stabilized earth wall.	10	L6	CO2
4.		Discuss about the sheet piling in cohesive soils with granular backfill with a neat diagram.	10	L6	CO3



1-Remembering, 2-Understanding, 3-Applying,
4-Analyzing, 5-Evaluating, 6-Creating

Faculty In-Charge

K. S. R. M. COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech I Mid-Term Examinations of June – 2024					Dept: CE (GTE) Academic Year 2023 – 24
Subject code	:	2212204	Subject: Foundations on Expansive Soils		
Mid Term	:	I	Marks: 40	Regulations: R22 PG	Duration: 02 Hrs
Year	:	I	Semester: II	Section: -	Date: 13.06.2024 FN

****Note: Answer the following questions**
All questions will carry equal Marks**

Q. No		Questions	Marks	BL	CO
1.	a.	Discuss the effect of mineralogy on the plasticity of the soil.	05	L1 & L2	CO1
	b.	Explain about the natural soil deposits.	05	L1 & L2	CO1
2.		Discuss the effect of soil structure, water content, and density on expansion potential	10	L1 & L2	CO2
3.		Discuss surface grading and drainage.	10	L1 & L2	CO2
4.		Explain the computation of footing heave with a neat diagram.	10	L1 & L2	CO3

1-Remembering, 2-Understanding, 3-Applying,
4-Analyzing, 5-Evaluating, 6-Creating

Faculty In-Charge

K. S. R. M. COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech I Mid Term Examinations of June – 2024					Dept:	CE (GTE)
					Academic Year	
					2023 – 2024	
Subject code	:	2212207	Subject: Design with Geosynthetics			
Mid Term	:	I	Marks : 40	Regulations : R22 PG		Duration : 02 Hrs
Year	:	I	Semester : II	Section :		Date : 14.06.2024 FN

****Note: Answer the following questions**
All questions will carry equal Marks**

Q.No	Questions	Marks	BL	CO
1.	In placing a geotextile beneath railroad ballast, the materials can serve in four different functions simultaneously. Describe and illustrate these functions.	10	L2	CO1
2.	Design a 6.00 m high wrap-around type of geotextile wall that is to carry a storage area of equivalent dead load of 10 kPa. The wall is to be backfilled with a granular soil (SP) having properties of γ = 18 kN/m^3, φ = 36°, and c = 0 kN/m^2. A woven slit-film geotextile with wrap (machine) direction ultimate wide-width tensile strength of 50 kN/m and friction angle with granular soil of δ = 24° is intended to be used in its construction. The orientation of the geotextile is perpendicular to the wall face and the edges are to be overlapped or sewn to handle the weft (cross machine) direction. A factor of safety of 1.4 is to be used along with site specific reduction factors.	10	L6	CO2
3.	In a geotextile testing, what is an index test, performance test and how can typical laboratory test values be made into allowable values for design by function procedure?	10	L1	CO2
4.	A 30 m long slope has uniform thickness cover soil of 300 mm at a unit weight of 18 kN/m^3. The soil has a friction angle of 30° and zero cohesion. The cover soil is on a geomembrane. Direct shear testing has resulted in an interface friction angle 22° with zero adhesion. The slope angle is 3H:1V, i.e., 18.4°. a design earthquake approximately transferred to the site's cover soil results in an average seismic coefficient of 0.10. Calculate the FS value and comment accordingly.	10	L5	CO3

1-Remembering, 2-Understanding, 3-Applying,
4-Analyzing, 5-Evaluating, 6-Creating

Faculty In-Charge

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (UGC-AUTONOMOUS) M. Tech I Semester (R22PG) I Mid Term Examinations Jun- 2024					Dept.: EEE & CE (PS & GT) Academic Year 2023 – 2024
Subject Code	:	2270A05	Subject: Constitution of India (Audit Course)		
Mid Term	:	I	Marks : 40	Regulation : R22	Duration : 120 Min
Year	:	I	Semester : II	Section : M. Tech	Date :15-06-2024

Answer ALL the questions. All Questions carry Equal Marks **4x10=40 Marks**

Q. No	Question (s)	Marks	Skills	CO
1	State the Meaning and Sources of Indian Constitution?	10	R	CO1
2	Explain the significance of the Constitution of India?	10	R	CO1
3	Discuss the Fundamental Rights of the Indian Citizens?	10	A	CO2
4	What are the fundamental duties of the Indian Citizens?	10	U	CO2

- R-Remembering
- U-Understanding
- A-Applying

PS

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (UGC-AUTONOMOUS) M.Tech Mid Term Examinations June 2024					Dept.: EEE (Power Systems) Academic Year 2023 – 2024
Subject Code	:	2252201	Subject: Power System Security and State Estimation		
Mid Term	:	I	Marks : 40	Regulation : R22 (PG)	Duration : 120 Min
Year	:	I	Semester : II	Section : M. Tech	Date : 11-06-2024

Answer all four questions

All questions carry equal marks

Q.NO	Questions	Marks	BL	CO
1	Explain formation of Bus admittance matrix by direct inspection method.	10M	L1	CO1
2	a) Algorithm for formation of Bus Impedance matrix with addition of a branch. b) Explain about sparsity programming.	10M	L1	CO1
3	Explain DC power flow methods.	10M	L2	CO2
4	Explain factors influencing power system security.	10M	L2	CO2

K.S.R.M. College of Engineering, Kadapa (Autonomous) M. Tech Mid Term Examinations, June – 2024							Dept.: EEE/PS Academic Year 2023 – 2024
Subject Code	:	2002405	Subject:	Power Systems Dynamics-II			
Mid Term	:	I	Marks:	40M	Regulation:	R22UG	Duration: 2:00 Hrs
Semester	:	I	Section:	-			Date: 12/06/2024

**Note: Answer the following Questions
All questions carries equal marks**

Q. No	Question (s)	Marks	BL	CO
1.	Explain the concept of state space representation.	10M	L2	CO1
2.	Explain the classical model of single machine connected to infinite bus system.	10M	L2	CO1
3.	Derive stator voltage equation for the effect of field flux linkage.	10M	L3	CO2
4.	Write the effect of AVR on damping and Synchronous component at the rotor oscillation frequency.	10M	L2	CO2

1-Remembering
2-Understanding
3-Applying
4-Analysing
5-Evaluating
6-Creating

Faculty In-charge
Saleha Tabassum,
Asst.Prof,EEE Dept

K.S.R.M. College of Engineering, Kadapa (Autonomous) M. Tech I Mid Term Examinations June - 2024							Dept.:	E EE PS
							Academic Year	
							2023-2024	
Subject Code	:	2252204	Subject:	Energy Auditing and Management				
Mid Term	:	I	Marks:	40M	Regulation:	R22PG	Duration: 120 Min	
Semester	:	II	Section:	-			Date: 13.06.2024	

Answer All Questions

Q. No	Question (s)	Marks	BL	CO
1.	Explain methodology used for effective energy auditing? Also mention goal of energy auditing?	10M	L2	CO1
2.	Describes about Snakey diagram, Pie charts and Load profiles used on energy flow representations	10M	L4	CO2
3.	Elucidate in details optimum location of capacitor bank in the industry and how it is improving the energy conservation?	10M	L3	CO3
4.	Briefly describe about energy efficient lighting and energy conservation in Lighting Schemes	10M	L5	CO2

Level 1 □ Remembering
Level 2 □ Understanding
Level 3 □ Applying
Level 4 □ Analysing
Level 5 □ Evaluating
Level 6 □ Creating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (UGC-AUTONOMOUS) Mid Term Examinations JUNE 2024					Dept.: EEE (PS) Academic Year 2023 – 2024
Subject Code	:	2252207	Subject: Electrical Power Quality		
Mid Term	:	I	Marks : 40	Regulation : R22	Duration : 120 Min
Year	:	I	Semester: II	Section: M. Tech	Date: 14-06-2024

Answer ALL the questions. All Questions carry Equal Marks **4x10=40 Marks**

Q. No	Question (s)	Marks	Skills	CO
1	Define Power Quality? Justify power quality is equal to voltage quality.	10	L1	CO1
2	Classify and explain the various power quality issues with a neat sketch.	10	L2	CO1
3	Explain various end effects due to poor power quality.	10	L1	CO2
4.a	Enumerate the differences between transients and harmonics.	5	L1	CO2
4.b	Write a short note on Individual Harmonic Distortion (IHD) and Total Harmonic Distortion (THD).	5	L2	CO2

ES & VLSI

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M. Tech Mid Term Examinations June,2024					Dept.: ES& VLSI Academic Year 2023-2024
Subject Code	:	**2284201**	**Subject: Analog and Digital CMOS VLSI Design**		
Mid Term	:	**I**	**Marks : 40M**	**Regulation : R22**	**Duration : 120 Min**
Year	:	_	**Semester : II**		**Date : 11.06.2024**

Note: Answer all the questions.

Q. No	Question (s)	Marks	BL	CO
1	Explain basic MOS structure and its static behavior.	10M	L2	CO1
2	Explain the characteristics of static CMOS inverter.	10M	L2	CO1
3	Analyze the physical design flow of CMOS design.	10M	L3	CO2
4(a)	Explain logic effort in combinational logic.	5M	L2	CO2
(b)	Explain speed and power dissipation in dynamic logic.	5M	L2	CO2

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M. Tech Embedded Systems and VLSI Mid Term Examinations June,2024					Dept.: ECE Academic Year 2023-2024
Subject Code	:	2284202	Subject: EMBEDDED REAL TIME OPERATING SYSTEMS		
Mid Term	:	I	Marks : 40M	Regulation: R22 PG	Duration: 120 Min
Year	:	I	Semester : II	Date: 12.06.2024	

Note: Answer all the questions.

Q. No	Question (s)	Marks	Levels	CO
1	List out and define the three main characteristics of embedded systems that distinguish such systems from other computing systems	10M	L1	CO115.1
2	List and define the three main processor technologies. What are the benefits of using each of the three different processor technologies?	10M	L1	CO115.1
3	Describe the basic architecture of a general-purpose processor with a neat diagram	10M	L2	CO115.2
4	Design a single purpose processor that computes GCD.	10M	L6	CO115.2

- R-Remembering Az- Analyzing C-Creating
- A-Applying U-Understanding E-Evaluating

K.S.R.M. COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) Mid Term Examinations JUNE 2024					Dept.: ECE (ES & VLSI) Academic Year 2023 – 2024
Subject Code	:	2284204	Subject: ADVANCED COMPUTER ARCHITECTURE		
Mid Term	:	I	Marks : 40	Regulation : R22PG	Duration : 120 Min
Year	:	I	Semester : II	Section : M. Tech	Date : 13-06-24

Answer ALL the questions. All Questions carry Equal Marks **4x10=40 Marks**

Q. No	Question (s)	Marks	Skills	CO
1	Compare the terms cost and price. Explain about Amdahl's law in detail.	10	Az	CO1
2	Classify the instruction set architectures and explain each with examples.	10	U	CO1
3	Write about Tomasulo's approach of dynamic scheduling used to overcome data hazards.	10	A	CO1
4.	Write a short note on cache performance.	10	U	CO1

- R-Remembering
- U-Understanding
- A-Applying
- Az- Analyzing
- E-Evaluating
- C-Creating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M. Tech Embedded Systems and VLSI Mid Term Examinations JUNE- 2024					Dept.: ECE Academic Year 2023 – 2024
Subject Code	:	2284208	Subject: NETWORK SECURITY AND CRYPTOGRAPHY		
Mid Term	:	I	Marks : 40M	Regulation : R22PG	Duration : 120 Min
Year	:	I	Semester : II	Date : 14/06/2024	

Note: Answer all the questions.

Q. No	Question (s)	Marks	B.L	CO
1(a)	Draw and Explain OSI Security Architecture.	5M	L2	CO.1
(b)	What are the different types of attacks? Explain with examples.	5M	L1	CO.1
2	Briefly Explain about Extended Euclidean Algorithm, and Modular Arithmetic.	10M	L2	CO.1
3	Explain in detail about the Characteristics of Advanced Symmetric block ciphers.	10M	L2	CO.2
4(a)	Discuss about Block Ciphers, Stream Ciphers, and RC4 Stream cipher.	5M	L4	CO.2
(b)	Explain in detail about the Data Encryption Standard (DES)	5M	L2	CO.2

- R-Remembering
- A-Applying

Az- Analyzing
U-Understanding

C-Creating
E-Evaluating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M. Tech Embedded Systems and VLSI Mid Term Examinations June, 2024					Dept.:	ECE
					Academic Year	
					2023 – 2024	
Subject Code	:	2270A01	Subject: English for Research Paper Writing			
Mid Term	:	I	Marks : 40M	Regulation : R22 PG	Duration : 2 Hrs.	
Year	:	I	Semester : I	Date : 15/06/24 SAT		

Note: Answer all the questions.

Q. No	Question (s)	Marks	Skills	CO
1	a) Explain steps that are involved in planning and preparation in writing a research paper?	5M	U	CO104.1
	b) List out the examples of word order.	5M	R	CO104.1
2	a) How to avoid ambiguity and vagueness in sentences?	5M	U	CO104.1
	b) What do you know about 'Being Concise and Removing Redundancy'	5M	E	CO104.1
3	How do you check your journal style?	10M	A	CO104.2
4	a) Elaborate your ideas on presenting your findings in a very short sentence.	5M	E	CO104.2
	b) Write short notes on Hedging and Criticizing	5M	R	CO104.2

- R-Remembering
- A-Applying

Az- Analyzing
U-Understanding

C-Creating
E-Evaluating

AS & DS

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech (AI&DS) Mid Term Examinations June 2024					Dept: CSE; Academic Year: 2023-2024
			Subject: Data Science		
Mid Term: I Mid	:	**Subject Code:**2298201	**Marks:** 40	**Regulations:** R22 PG	**Duration :** 1 20 Min
Year	:	I	**Semester :** II	**Section :** -	**Date :** 11-06-2024

Answer all question

Q. No	Question (s)	Marks	CO	Blooms Level
1	a. What is Data Science? Explain the history of the Data Scicence.	5	CO1	L1
	b. Discuss the Exploratory Data Analysis.	5	CO1	L3
2	What is EDA? Explain EDA in data Science with suitable examples.	10	CO1	L2
3	a. Explain Linear regression in detail.	5	CO2	L3
	b. Discuss the K-NN algorithm in detail.	5	CO2	L2
4	How Bayes law is useful to create a Spam Filter? Explain.	10	CO2	L4

- L1-Remembering
- L2-Understanding
- L3-Applying
- L4- Analyzing
- L5-Evaluating
- L6-Creating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M. Tech. Mid Term Examinations June- 2024.					Dept. AI&DS Academic Year 2023 – 2024
Subject Code	:	2298202	Subject: Deep Learning		
Mid Term	:	I	Marks : 40	Regulation: R22 PG	Duration : 120 Min
Year	:	I	Semester: II	Section: -	Date : 12-06-2024

Answer all questions

Q. No.	Question (s)	Marks	BL	CO
1	Define Topology? Explain about Deep Recurrent Neural Network?	10	L3	CO2
2	Discuss in detail about Types of Autoencoder in Deep Learning?	10	L4	CO3
3	Explain RBM Architecture with Example? Discuss different Types of RBM.?	10	L4	CO4
4	Illustrate Open Source Frameworks for Deep Learning?	10	L5	CO5

- R-Remembering
- U-Understanding
- A-Applying
- Az- Analyzing
- E-Evaluating
- C-Creating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech (AI&DS) Mid Term Examinations June 2024					Dept: CSE; Academic Year: 2023– 2024
			Subject: : Exploratory Data Analysis using R (PE-3)		
Mid Term: I Mid	:	**Subject Code:**2298204	**Marks:** 40	**Regulations:** R22 PG	**Duration :** 120 Min
Year	:	I	**Semester :** II	**Section :** -	**Date :** 13-06-2024

Answer all question

Q. No	Question (s)	Marks	CO	Blooms Level
1	Elaboratel Why do we analyze data,	5	CO1	L1
	Do the exploratory analysis of data view	5	CO1	L3
2	Provide a detailed explanation about on the following topics: computers, software and R.	10	CO1	L2
3	Explain the following concepts related to graphics: a. Base Graphics b. Grid graphics	10	CO2	L3
4	How the points, lines and text were added to a plot	5	CO2	L4
	Write about pie charts and why they should be avoided	5	CO2	L4

- L1-Remembering
- L2-Understanding
- L3-Applying
- L4- Analyzing
- L5-Evaluating
- L6-Creating

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech Mid Term Examinations, JUNE – 2024					Dept.: AI &DS Academic Year 2023 – 2024
Subject Code	:	2298209	Subject: TEXT MINING & TIME SERIES DATA ANALYSIS		
Mid Term	:	I	Marks: 40	Regulation: R-22 PG	Duration: 120 Min
Year	:	I	Semester : II		Date : 14-06-2024

Note: Answer **ALL** questions.

Q. No	Question (s)	Marks	BL	CO
1	A) Explain how to represent unstructured text documents with appropriate formats and structure. B) What is Tokenization in NLP? Explain with an example.	5 5	L1	CO 1
2	Explain Navie bayes algorithm in text analysis with examples.	10	L1	CO 1
3	Explain in detail about document summarization in text mining.	10	L2	CO 2
4	List and explain the types of Sentiment Analysis in detail.	10	L2	CO 2

K.S.R.M COLLEGE OF ENGINEERING, KADAPA (AUTONOMOUS) M.Tech (AI&DS) Mid Term Examinations June 2024					Dept: CSE; Academic Year: 2023–2024
			Subject: Stress Management by Yoga		
Mid Term: I Mid	:	**Subject Code:** 2270A07	**Marks:** 40	**Regulations:** R22 PG	**Duration :** 120 Min
Year	:	I	**Semester :** II	**Section :** -	**Date :** 15-06-2024 FN

Answer all question

Q. No	Question (s)	Marks	CO	BL
1	What is Yoga? Discuss the importance of Yoga in our life.	10	CO1	U
2	Explain in detail Ashtanga Yoga and its importance in human life.	10	CO1	A
3	What is the difference between Ashtanga and Vinyasa Yoga?	10	CO2	A
4	Explain in detail about Niyama	10	CO2	U

- R-Remembering
- U-Understanding
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- C-Creating