R24

Code No: R24A0001

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

English for Skill Enhancement

(CSE & CSE-DS)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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			BCLL	CO(s)	Marks
		PART-A (10 Marks)			
1	A	Write any two words with prefix 'mis'	**L1**	**CO-I**	**[1M]**
	B	The gold is a precious metal(correct the sentence with reference to article)	**L3**	**CO-I**	**[1M]**
	C	Write the difference between homonyms and homographs with one example	**L2**	**CO-II**	**[1M]**
	D	Use the words upgrade and upload in sentences of your own	**L2**	**CO-II**	**[1M]**
	E	Expand ASAP	**L3**	**CO-III**	**[1M]**
	F	What is the purpose of career objective in a resume	**L2**	**CO-III**	**[1M]**
	G	Explain any two important aspects to remember in précis writing.	**L1**	**CO-IV**	**[1M]**
	H	Frame your own sentences with effect and affect	**L3**	**CO-IV**	**[1M]**
	I	Examine the purpose of references in a report.	**L1**	**CO-V**	**[1M]**
	J	Write any two computer related terms that you use the most.	**L2**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Do we need Bharat brand of English? Why or Why not	**L4**	**CO-I**	**[5M]**
	B	R.K. Narayan is known for his simple, yet subtle message conveyed. Justify with reference to the lesson 'Toasted English'.	**L4**	**CO-I**	**[5M]**
		OR			
3	A	'Toasted English by R.K. Narayan is half humorous and half serious. Justify	**L4**	**CO-I**	**[5M]**
	B	Explain direct and indirect speech with at least three examples.	**L4**	**CO-I**	**[5M]**
		SECTION-II			
4	A	'The brave are always rewarded.' Explain the statement with reference to the lesson ApproJRD by Sudha Murthy	**L4**	**CO-II**	**[5M]**

	B	Words misspelt cause miscommunication. Justify the statement. Write any 10 words that are commonly misspelt in English	**L4**	**CO-II**	**[5M]**
		OR			
5	A	Describe your favorite tourist place in 100 words.	**L3**	**CO-II**	**[5M]**
	B	Describe Sudha Murthy's first experience of gender discrimination?	**L3**	**CO-II**	**[5M]**
		SECTION-III			
6	A	Explain Homonyms, Homophones and Homographs with one example each	**L3**	**CO-III**	**[5M]**
	B	Imagine that you are in the final stages of completing a project and you need to utilize the Computer Lab beyond college hours. Write a letter of requisition to the Head of the Department concerned.	**L4**	**CO-III**	**[5M]**
		OR			
7	A	What is the role of a teacher in shaping a student according to Abraham Lincoln?	**L4**	**CO-III**	**[5M]**
	B	Draft a resume to apply for an internship at T-HuB	**L4**	**CO-III**	**[5M]**
		SECTION-IV			
8	A	Explain the importance of art and literature in unifying a nation	**L3**	**CO-IV**	**[5M]**
	B	Write the structures of present tenses with examples.	**L3**	**CO-IV**	**[5M]**
		OR			
9	A	Write about passive and active voices with at least five examples with conversion.	**L3**	**CO-IV**	**[5M]**
	B	Write an essay in 250 words on Role of Engineers in Sustainable Development	**L4**	**CO-IV**	**[5M]**
		SECTION-V			
10	A	Summarize the lesson 'Go Kiss the World'	**L3**	**CO-V**	**[5M]**
	B	Draft a report on a student symposia organized by Literary Club	**L3**	**CO-V**	**[5M]**
		OR			
11	A	'Success is defined by what you leave behind, not by what you build for yourself.' Explain the statement with reference to the lesson 'Go Kiss the World' by Subroto Bagchi	**L3**	**CO-V**	**[5M]**
	B	Explain transitive and intransitive verbs with appropriate five examples.	**L3**	**CO-V**	**[5M]**

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R24

Code No: R24A0023

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Linear Algebra and Ordinary Differential Equations

(Common to all branches)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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		PART-A (10 Marks) **(Write all answers of this part at one place)**	**BCLL**	**CO(s)**	**Marks**
1	A	Define Hermitian matrix.	**L1**	**CO-I**	**[1M]**
	B	Define Orthogonal matrix.	**L1**	**CO-I**	**[1M]**
	C	Define modal and spectral matrix.	**L1**	**CO-II**	**[1M]**
	D	Find the characteristic roots of the matrix $\begin{bmatrix} a & h & g \\ 0 & b & 0 \\ 0 & 0 & c \end{bmatrix}$	**L1**	**CO-II**	**[1M]**
	E	Find the first order partial derivatives of $x^3 + y^3 - 3axy$	**L1**	**CO-III**	**[1M]**
	F	Define Jacobian.	**L1**	**CO-III**	**[1M]**
	G	Define exact differential equation.	**L1**	**CO-IV**	**[1M]**
	H	State Newton's Law of Cooling.	**L1**	**CO-IV**	**[1M]**
	I	Solve $(D^2 - a^2)y = 0, a \neq 0$	**L3**	**CO-V**	**[1M]**
	J	Write the Particular Integral of $f(D)y = e^{ax}$	**L1**	**CO-V**	**[1M]**
		PART-B (50 Marks) **SECTION-I**			
2		Define Rank of a Matrix. By reducing the matrix A = $\begin{bmatrix} 2 & 3 & -1 & -1 \\ 1 & -1 & -2 & -4 \\ 3 & 1 & 3 & -2 \\ 6 & 3 & 0 & -7 \end{bmatrix}$ into normal form, find its rank.	**L1**	**CO-I**	**[10M]**
		OR			
3		Discuss for what values of λ , μ the simultaneous Equations x + y + z = 6, x + 2y + 3z = 10, x + 2y + $\lambda z = \mu$ have (i) no solution	**L6**	**CO-I**	**[10M]**

(ii) a unique solution
(iii)an infinite number of solutions.

SECTION-II

4		Find the Eigen values and corresponding Eigen vectors of the matrix $A=\begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$	**L1**	**CO-II**	**[10M]**
		OR			
5		Determine the model matrix P for $A=\begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ and hence Diagonalize A	**L5**	**CO-II**	**[10M]**

SECTION-III

6		A rectangular box open at the top is to have volume of 32 cubic ft. Find the dimensions of the box requiring least material for its construction.	**L1**	**CO-III**	**[10M]**
		OR			
7	A	If u= x+y+z, y+z =uv,z=uvw then show that $\frac{\partial(x,y,z)}{\partial(u,v,w)}$ =u^2v	**L2**	**CO-III**	**[5M]**
	B	Find the minimum value of $x^2+y^2+z^2$, given x + y + z =3a.	**L1**	**CO-III**	**[5M]**

SECTION-IV

8	A	solve: $y(1+xy)\,dx + x(1-xy)\,dy = 0$	**L3**	**CO-IV**	**[5M]**
	B	A body kept in air with temperature $25^o c$ cools from $140^o c$ to $80^o c$ in 20 minutes. Find when the body cools down to $35^o c$	**L1**	**CO-IV**	**[5M]**
		OR			
9		The number N of bacteria in a culture grew at a rate proportional to N. The value of N was initially 100 and increased to 332 in one hour. What was the value of N after $1\frac{1}{2}$hours.	**L1**	**CO-IV**	**[10M]**

SECTION-V

10		Solve:$(D^2+4)y = e^x + \sin 2x + \cos 2x$	**L3**	**CO-V**	**[10M]**
		OR			
11		Apply the method of variation of parameters to solve $\frac{d^2y}{dx^2} + y = cosecx$	**L3**	**CO-V**	**[10M]**

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R24

Code No: R24A0021

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Applied Physics

(CSE & CSE-DS)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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		PART-A (10 Marks) (Write all answers of this part at one place)	**BCLL**	**CO(s)**	**Marks**
1	A	Define stimulated emission?	**L1**	**CO-I**	**[1M]**
	B	Name the parts of an optical fiber.	**L1**	**CO-I**	**[1M]**
	C	Write any two assumptions of Classical free electron theory	**L2**	**CO-II**	**[1M]**
	D	Calculate the lowest energy of an electron moving in a 1D potential well of length $4A^0$	**L3**	**CO-II**	**[1M]**
	E	State the principle of solar cell.	**L2**	**CO-III**	**[1M]**
	F	Give an example for intrinsic and extrinsic semiconductors.	**L1**	**CO-III**	**[1M]**
	G	Mention different types of polarizations observed in dielectric solids.	**L1**	**CO-IV**	**[1M]**
	H	Define Magnetic Susceptibility.	**L2**	**CO-IV**	**[1M]**
	I	Write any two applications of nano materials.	**L3**	**CO-V**	**[1M]**
	J	List out the different types of nano materials.	**L4**	**CO-V**	**[1M]**
		PART-B (50 Marks) **SECTION-I**			
2	A	List out four applications of lasers.	**L3**	**CO-I**	**[2M]**
	B	Explain the Construction and working of He-Ne laser.	**L2**	**CO-I**	**[8M]**
		OR			
3	A	Explain step index and graded index optical fiber	**L2**	**CO-I**	**[7M]**
	B	The cladding of a step-index fiber has a refractive index of 1.40. If Numerical Aperture of fiber is 0.25, Calculate the refractive index of the core.	**L3**	**CO-I**	**[3M]**
		SECTION-II			
4	A	Give the physical significance of wave function	**L1**	**CO-II**	**[3M]**
	B	Deduce an expression for one dimensional schrodinger time-independent wave equation.	**L5**	**CO-II**	**[7M]**
		OR			
5	A	State and explain de Broglie's hypothesis.	**L1**	**CO-II**	**[3M]**

	B	Discuss in detail about the Davisson and Germer's experiment	**L2**	**CO-II**	**[7M]**
		SECTION-III			
6	A	Distinguish between N-type and P-Type semiconductor	**L2**	**CO-III**	**[3M]**
	B	Derive an expression for carrier concentration of electrons in an intrinsic semiconductor.	**L4**	**CO-III**	**[7M]**
		OR			
7	A	State Hall effect?	**L2**	**CO-III**	**[2M]**
	B	Determine expressions for Hall coefficient and Hall voltage for semiconducting sample.	**L4**	**CO-III**	**[8M]**
		SECTION-IV			
8	A	Define Ionic polarization and electronic polarization	**L2**	**CO-IV**	**[2M]**
	B	Develop an expression for electronic polarizability.	**L5**	**CO-IV**	**[8M]**
		OR			
9	A	Compare the properties of dia, para and ferro magnetic materials based on their magnetic moment.	**L5**	**CO-IV**	**[7M]**
	B	Explain in detail about Meissener effect	**L2**	**CO-IV**	**[3M]**
		SECTION-V			
10	A	Why the properties of nano particles are different from bulk materials explain.	**L4**	**CO-V**	**[7M]**
	B	Explain how XRD technique is used to characterize the samples.	**L4**	**CO-V**	**[3M]**
		OR			
11	A	Explain sol-gel method to prepare nano materials.	**L2**	**CO-V**	**[7M]**
	B	Write any four applications of nano materials.	**L3**	**CO-V**	**[3M]**

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Code No: R24A0022 **R24**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Engineering Chemistry

(EEE, ME, ECE, AE, CSE-CS & CSE-AIML)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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		PART-A (10 Marks) **(Write all answers of this part at one place)**	**BCLL**	**CO(s)**	**Marks**
1	A	Express the reasons why $CaCO_3$ is selected for expression of the hardness?	**L3**	**CO-I**	**[1M]**
	B	Describe the conversion of 10 ppm of hardness of water in to degree clark.	**L3**	**CO-I**	**[1M]**
	C	Write differences between primary and secondary batteries.	**L2**	**CO-II**	**[1M]**
	D	What is meant by rusting of Iron?	**L2**	**CO-II**	**[1M]**
	E	Classify the polymers with examples.	**L2**	**CO-III**	**[1M]**
	F	List the applications of PVC?	**L3**	**CO-III**	**[1M]**
	G	Define fuel and classify the fuels.	**L2**	**CO-IV**	**[1M]**
	H	Define cracking of petroleum.	**L2**	**CO-IV**	**[1M]**
	I	Classify lubricants with examples	**L2**	**CO-V**	**[1M]**
	J	What are glass Fibre reinforced plastics?	**L2**	**CO-V**	**[1M]**
		PART-B (50 Marks) **SECTION-I**			
2	A	A sample of water is found to contain following analytical data in milligrams per litre $Mg(HCO_3)_2$=14.6, $MgCl_2$=9.5, $MgSO_4$=6.0 and $Ca(HCO_3)_2$=16.2. Calculate temporary and permanent hardness of water in parts per million, Degree Clark and Degree French.	**L4**	**CO-I**	**[5M]**
	B	Discuss the Ion exchange process of softening of hard water.	**L3**	**CO-I**	**[5M]**
		OR			
3	A	What are the specifications of Potable water? Describe the disinfection of potable water by chlorination.	**L3**	**CO-I**	**[6M]**
	B	Define Desalination? Explain Reverse osmosis process.	**L3**	**CO-I**	**[4M]**

SECTION-II

4	A	Write the construction and working of methanol-oxygen fuel cell.	**L3**	**CO-II**	**[5M]**
	B	What is cathodic protection? How do you protect the buried pipelines and ship hulls by sacrificial anodic method?	**L4**	**CO-II**	**[5M]**
		OR			
5	A	What are the basic requirements of commercial batteries. Discuss various batteries with their applications.	**L3**	**CO-II**	**[5M]**
	B	Explain the factors affecting the rate of corrosion with respect to nature of environment. What is impressed current method of corrosion control?	**L4**	**CO-II**	**[5M]**

SECTION-III

6	A	Explain preparation, properties and engineering applications of Bakelite and Teflon.	**L3**	**CO-III**	**[5M]**
	B	Describe the disadvantages of natural rubber and Explain the vulcanisation of natural rubber.	**L3**	**CO-III**	**[5M]**
		OR			
7	A	Differentiate between thermoplastic and thermosetting plastics.	**L3**	**CO-III**	**[5M]**
	B	Explain preparation and engineering applications of Poly lactic acid.	**L3**	**CO-III**	**[5M]**

SECTION-IV

8	A	Discuss the Proximate analysis of coal with significance.	**L4**	**CO-IV**	**[6M]**
	B	Write the composition and uses of natural gas and CNG.	**L3**	**CO-IV**	**[4M]**
		OR			
9	A	Describe the synthesis of synthetic petrol by Fischer-Tropsch's process.	**L3**	**CO-IV**	**[5M]**
	B	Define knocking and write about octane rating.	**L2**	**CO-IV**	**[5M]**

SECTION-V

10	A	What are lubricants? Discuss the following properties: a) Viscosity and viscosity index. b) Fire and Flash point.	**L3**	**CO-V**	**[5M]**
	B	Describe polyacryl amides along with their significance and applications.	**L3**	**CO-V**	**[5M]**
		OR			
11	A	Describe carbon fiber-reinforced plastics and their applications.	**L3**	**CO-V**	**[3M]**
	B	I. What are the characteristics of a good lubricant? II. What are cloud and pour points and describe their significance.	**L3**	**CO-V**	**[7M]**

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R24

Code No: R24A0201

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Principles of Electrical and Electronics Engineering

(EEE, ME, ECE, AE, CSE-CS & CSE-AIML)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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			BCLL	CO(s)	Marks
		PART-A (10 Marks)			
		(Write all answers of this part at one place)			
1	A	Define Ohm's Law and its limitations.	**L1**	**CO-I**	**[1M]**
	B	State Kirchhoff's Voltage Law (KVL).	**L1**	**CO-I**	**[1M]**
	C	Define RMS value in AC circuits.	**L3**	**CO-II**	**[1M]**
	D	What is the phase difference in sinusoidal waveform?	**L2**	**CO-II**	**[1M]**
	E	State the principle of a DC generator.	**L1**	**CO-III**	**[1M]**
	F	Define back EMF in DC motors.	**L2**	**CO-III**	**[1M]**
	G	Draw the V-I characteristics of a p-n junction diode.	**L2**	**CO-IV**	**[1M]**
	H	What is the function of a bridge rectifier?	**L2**	**CO-IV**	**[1M]**
	I	Differentiate between NPN and PNP transistors.	**L4**	**CO-V**	**[1M]**
	J	Draw the symbol of depletion mode of MOSFET.	**L1**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Derive the expression for current division in parallel networks.	**L3**	**CO-I**	**[5M]**
	B	Explain mesh analysis with an example.	**L3**	**CO-I**	**[5M]**
		OR			
3	A	Explain the series and parallel combinations of resistors.	**L2**	**CO-I**	**[5M]**
	B	Explain nodal analysis with an example.	**L3**	**CO-I**	**[5M]**
		SECTION-II			
4	A	State and explain Thevenin's Theorem with an example.	**L2**	**CO-II**	**[5M]**
	B	Define and explain the peak factor of sinusoidal waveforms..	**L2**	**CO-II**	**[5M]**
		OR			
5	A	State and explain Norton's Theorem with an example .	**L3**	**CO-II**	**[5M]**
	B	Explain sinusoidal response in pure R circuits.	**L4**	**CO-II**	**[5M]**
		SECTION-III			
6		Explain the constructional features of a DC generator	**L2**	**CO-III**	**[10M]**
		OR			
7	A	Derive the torque equation for DC motor.	**L4**	**CO-III**	**[5M]**

	B	Discuss the working principle of a single-phase transformer.	**L2**	**CO-III**	**[5M]**
		SECTION-IV			
8	A	Describe the working of a half-wave rectifier.	**L2**	**CO-IV**	**[5M]**
	B	Explain the construction and operation of a PN junction diode.	**L2**	**CO-IV**	**[5M]**
		OR			
9	A	Discuss the differences between full-wave center-tap and bridge rectifiers.	**L3**	**CO-IV**	**[5M]**
	B	Illustrate the V-I characteristics of a Zener diode.	**L2**	**CO-IV**	**[5M]**
		SECTION-V			
10	A	Explain the operation of a common emitter configuration in BJTs.	**L2**	**CO-V**	**[5M]**
	B	Describe the characteristics of JFET.	**L4**	**CO-V**	**[5M]**
		OR			
11		Explain the principle of operation of MOSFET in enhancement mode.	**L2**	**CO-V**	**[10M]**

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R24

Code No: R24A0501

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Programming for Problem solving

(Common to all branches)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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		PART-A (10 Marks) **(Write all answers of this part at one place)**	**BCLL**	**CO(s)**	**Marks**
1	A	Compare System Software and Application Software.	**L2**	**CO-I**	**[1M]**
	B	List the rules for naming an identifier in Python.	**L1**	**CO-I**	**[1M]**
	C	Distinguish between List and Tuple.	**L4**	**CO-I**	**[1M]**
	D	What is pass statement in Python?	**L3**	**CO-II**	**[1M]**
	E	How is an array different from a list In Python?	**L4**	**CO-III**	**[1M]**
	F	List various advantages of arrays in Python.	**L1**	**CO-III**	**[1M]**
	G	How do you define a function in Python?	**L2**	**CO-IV**	**[1M]**
	H	Write the syntax for a function with default arguments.	**L2**	**CO-IV**	**[1M]**
	I	Distinguish read () and readlines ().	**L4**	**CO-V**	**[1M]**
	J	Write the syntax for a try-except block.	**L2**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Define algorithm? Explain characteristics of an algorithm with suitable example.	**L1**	**CO-I**	**[5M]**
	B	Explain basic features of Python	**L2**	**CO-I**	**[5M]**
		OR			
3	A	Elucidate the string and its methods with example.	**L3**	**CO-I**	**[5M]**
	B	Differentiate between the tuple and sets in python.	**L2**	**CO-I**	**[5M]**
		SECTION-II			
4	A	List various types of operators. Explain any five operators.	**L3**	**CO-II**	**[5M]**
	B	Explain conditional statements in python with syntax, flowchart and example.	**L2**	**CO-II**	**[5M]**
		OR			
5	A	Write a Python program to swap values of two variables.	**L2**	**CO-II**	**[5M]**
	B	List and explain various types of iteration statements in Python with syntax.	**L2**	**CO-II**	**[5M]**
		SECTION-III			
6	A	Implement a Python program to find the minimum and	**L3**	**CO-III**	**[5M]**

		maximum in an array of integers.			
	B	Discuss in detail about various types of NumPy arrays.	**L3**	**CO-III**	**[5M]**
		OR			
7		Explain about NumPy array methods and attributes in detail using suitable examples.	**L5**	**CO-III**	**[10M]**
		SECTION-IV			
8	A	Describe about different types of Python Function arguments with suitable examples.	**L1**	**CO-IV**	**[5M]**
	B	Illustrate Anonymous/Lambda Functions with suitable example.	**L2**	**CO-IV**	**[5M]**
		OR			
9		Write a program to determine the factorial of a given number n with and without the use of recursion.	**L2**	**CO-IV**	**[10M]**
		SECTION-V			
10	A	Write a python program to demonstrate multiple except blocks with a try block.	**L4**	**CO-V**	**[5M]**
	B	Explain i) Zero Division Error ii) Overflow Error iii)Import Error iv)Index Error v) Type Error	**L2**	**CO-V**	**[5M]**
		OR			
11		Discuss the different modes for opening a file and closing a file with suitable example.	**L4**	**CO-V**	**[10M]**

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R24

Code No: R24A0301

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Computer Aided Engineering Graphics

(CSE)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 12 marks.

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			BCLL	CO(s)	Marks
		SECTION-I			
1	A	Draw a circle of 100 mm diameter and divide eight equal parts	**L1**	**CO-I**	**[6M]**
	B	Divide a 100 mm long straight line into nine equal parts.	**L4**	**CO-I**	**[6M]**
		OR			
2	A	Inscribe a polygon of 5 and 7 sides in a circle of 65 diameter.	**L2**	**CO-I**	**[6M]**
	B	Draw an ellipse with major axis of an ellipse is 110 mm and minor axis is 70 mm long.	**L1**	**CO-I**	**[6M]**
		SECTION-II			
3		Draw the projections of the following points on a common reference line keeping the distance between their projectors 35 mm apart. A. Point A is 30 mm above the H.P. and 35 mm in front of the V.P. B. Point B is 40 mm above the H.P and on the V.P. C. Point C is 35 mm in front of V.P and on the H.P D. Point D is 35 mm above the H.P and 30 mm behind the V.P. E. Point E is on the H.P and 20 mm behind the V.P F. Point F is 30 mm below the H.P and 40 mm behind the V.P. G. Point G is 35 mm below the H.P and 40 mm in front of V.P H. Point H is on the V.P and 20 mm below the H.P	**L1**	**CO-II**	**[12M]**
		OR			
4		A Straight line PQ has its end P at 20 mm above the H.P and 30 mm in front of V.P and other end Q is 80mm above the H.P and 70 mm in front of V.P if the end projectors are 60 mm apart. Draw the projections of the line. Determine true length and true inclination with reference planes.	**L2**	**CO-II**	**[12M]**
		SECTION-III			
5		A Pentagonal plane with a 30 mm side has an edge on the V.P The surface of the plane is inclined at 45^0 to the V.P. and Perpendicular to the H.P. Draw its projections.	**L3**	**CO-III**	**[12M]**
		OR			

6	A square prism of base side 40 mm and axis 60 mm is resting on its base on the ground. Draw its projections when the axis is inclined at 30 ^{0} to the H.P	**L3**	**CO-III**	**[12M]**

SECTION-IV

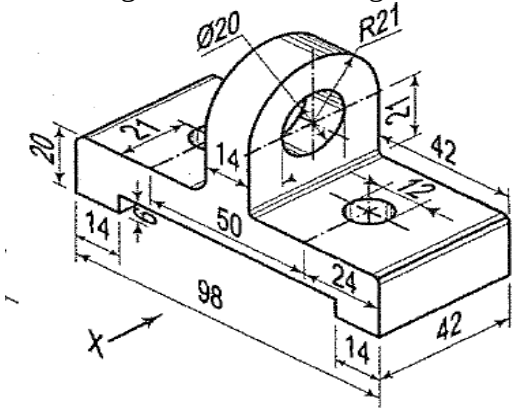
7	Draw the isometric view of a cone of base diameter 50 mm and axis 60 mm. The axis of the cone is perpendicular to the HP	**L2**	**CO-IV**	**[12M]**

OR

8	Draw the isometric view of a cylinder of base diameter 50 mm and axis 60 mm. The axis of the cylinder is perpendicular to the H.P.	**L4**	**CO-IV**	**[12M]**

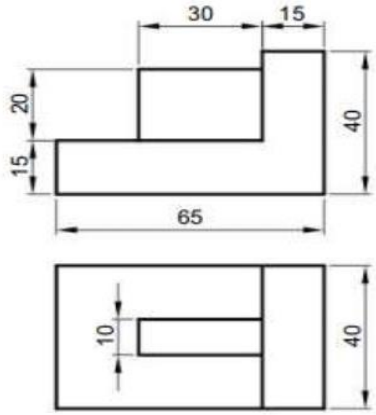
SECTION-V

9	Draw the (i) Front view (ii) Top View (iii) Side view of the Following Isometric Drawings	**L4**	**CO-V**	**[12M]**



OR

10	Draw the isometric drawing for the following diagram	**L4**	**CO-V**	**[12M]**



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R24

Code No: R24A0301

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech I Semester Regular Examinations, January 2025

Computer Aided Engineering Graphics

(CSE-DS)

Roll No										

Time: 3 hours **Max. Marks: 60**

Note: This question paper contains two parts A and B
Part A is compulsory which carries 10 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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			BCLL	CO(s)	Marks
		SECTION-I			
1	A	Divide a circle of 50 mm diameter into twelve equal parts.	**L1**	**CO-I**	**[6M]**
	B	Construct a polygon of 6 sides with a radius of 30 mm using inscribed method.	**L1**	**CO-I**	**[6M]**
		OR			
2	A	Draw a hexagon and a Square of side 30 mm using edge method	**L2**	**CO-I**	**[6M]**
	B	Divide an 80 mm long straight line into seven equal parts.	**L1**	**CO-I**	**[6M]**
		SECTION-II			
3		Draw the projections of the following points on a common reference line keeping the distance between their projections 30mm apart. (a) Point A is 20mm below the HP and 50mm in front of the VP (b) Point B is in the HP and 40mm behind the VP (c) Point C is 30mm in front of the VP and in the HP (d) Point D is 50mm above the HP and 30mm behind the VP (e) Point E is 20mm below the HP and 50mm behind the VP (f) Point F is in the VP and 50mm below the HP	**L2**	**CO-II**	**[12M]**
		OR			
4		A straight-line PQ has its end P 20mm above the HP and 30 mm in front of the VP and the end Q is 80 mm above the HP and 70mm in front of the VP. If the end projectors are 60mm apart, draw the projections of the line. Determine its true length and true inclinations with the reference planes.	**L3**	**CO-II**	**[12M]**
		SECTION-III			
5		A semi-circular plate of 80 mm diameter has its straight edge in the VP and inclined at 60^0 to the HP, the surface of the plate makes an angle of 30^0 with the VP. Draw its projections.	**L3**	**CO-III**	**[12M]**
		OR			

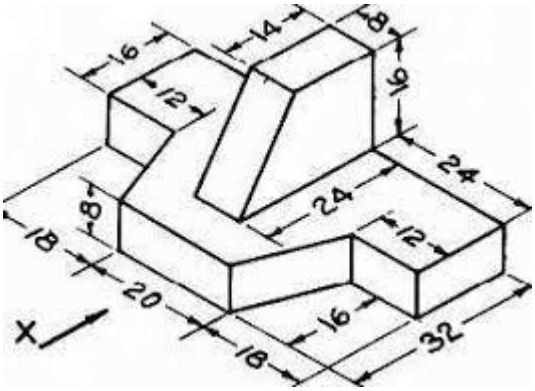
6		A hexagonal pyramid of base side 30mm and axis 60 mm has an edge of its base on the ground. Its axis is inclined at 30^0 to the ground and parallel to the VP. Draw its projections.	**L4**	**CO-III**	**[12M]**

SECTION-IV

7	A	Draw the isometric view of a hexagonal prism of base side 30 and axis 70 mm. The prism is resting on its base on the H.P. with an edge of the base parallel to the V.P.	**L4**	**CO-IV**	**[6M]**
	B	Draw the isometric view of a Circle (Isocircle) with a 60mm Diameter on all three Principle Planes.	**L2**	**CO-IV**	**[6M]**
		OR			
8	A	Draw an isometric view of Cone with a base diameter is 50 mm side and 70mm long axis (a) when the base is on the HP (b) when the base is on the VP?	**L4**	**CO-IV**	**[6M]**
	B	Draw the isometric view of a pentagonal prism of base side 30 and axis 55 mm. The prism is resting on its base on the H.P. with an edge of the base parallel to the V.P.	**L4**	**CO-IV**	**[6M]**

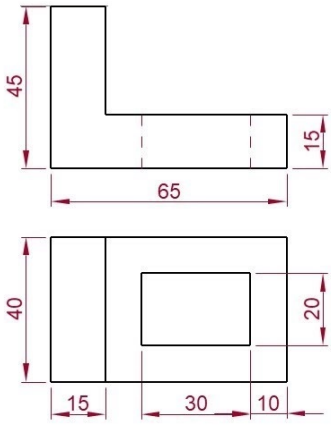
SECTION-V

9		Draw the (i) Front view (ii) Top View (iii) Side view of the Following Isometric Drawing.	**L5**	**CO-V**	**[12M]**



OR

10		Draw the isometric drawing for the following views.	**L4**	**CO-V**	**[12M]**



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