R22

Code No: R22A0002

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Professional English

(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)	BCLL	CO(s)	Marks
1	A	Define homographs mentioning an example.	**L1**	**CO-I**	**[1M]**
	B	What is cover letter?	**L1**	**CO-I**	**[1M]**
	C	What do you know about an acronym?	**L1**	**CO-II**	**[1M]**
	D	Identify the following as either an abbreviation or an acronym.1. WHO 2. USA	**L4**	**CO-II**	**[1M]**
	E	He is poor but he is honest (Change into complex)	**L5**	**CO-III**	**[1M]**
	F	Change the following affirmative sentence into a negative. •I will definitely complete this task.	**L3**	**CO-III**	**[1M]**
	G	What is the difference between auxiliary and modal verbs?	**L1**	**CO-IV**	**[1M]**
	H	Identify auxiliary verbs in the following sentences. a. Siri was building a sandcastle. b. Venkat has burned the toast.	**L3**	**CO-IV**	**[1M]**
	I	Correct the error in the use of prepositions. • Can you please put the bottles in the table?	**L5**	**CO-V**	**[1M]**
	J	Correct the error in the use of prepositions. • The thief entered the house by the window.	**L5**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Discuss the early life and education of Sir Mokshagundam Visvesvaraya.	**L2**	**CO-I**	**[5M]**
	B	Elaborate on the block system in irrigation introduced by Sir Mokshagundam Visvesvaraya.	**L2**	**CO-I**	**[5M]**
		OR			
3	A	Write the rules of If-Clauses with appropriate examples.	**L2**	**CO-I**	**[5M]**
	B	Write a descriptive paragraph on a person you admire.	**L6**	**CO-I**	**[5M]**
		SECTION-II			
4	A	What are finite verbs? Discuss them citing with 3-4 examples.	**L2**	**CO-II**	**[5M]**
	B	Define non-finite and verbs with 3-4 examples.	**L2**	**CO-II**	**[5M]**

		OR			
5	A	What are abbreviations? Give 5 examples.	**L1**	**CO-II**	**[5M]**
	B	How are acronyms different from abbreviations? Give 5 examples.	**L3**	**CO-II**	**[5M]**
		SECTION-III			
6	A	Discuss a few important steps in the preparation of a technical presentation.	**L3**	**CO-III**	**[5M]**
	B	What are a few body language signs for an impactful delivery of a presentation?	**L1**	**CO-III**	**[5M]**
		OR			
7	A	How are abstract and precis different from each other in their form and purpose?	**L3**	**CO-III**	**[5M]**
	B	Write any five idioms with meanings and examples each.	**L6**	**CO-III**	**[5M]**
		SECTION-IV			
8	A	Discuss the evolution of Lens Technologies established by Zhou Qunfei into one of the most successful companies.	**L3**	**CO-IV**	**[5M]**
	B	What are a few personal and professional traits that made Zhou Qunfei what she is today?	**L1**	**CO-IV**	**[5M]**
		OR			
9	A	What are modal auxiliary verbs? List five of them mentioning their specific uses.	**L1**	**CO-IV**	**[5M]**
	B	Change the degree of comparison in the sentences without changing the meaning. 1. Kalidasa was greater than any other playwright. (Superlative) 2. Asoka was one of the greatest Indian emperors. (Positive) 3. Greenland is the largest island in the world. (Positive) 4. Lead is heavier than any other metal. (Superlative) 5. No other animal is as useful as the cow. (Comparative)	**L3**	**CO-IV**	**[5M]**
		SECTION-V			
10		List a few do's and don'ts for the participants in a group discussion.	**L1**	**CO-V**	**[10M]**
		OR			
11		Write a detailed report on the necessity of expanding the metro rail services to the other parts of your city.	**L6**	**CO-V**	**[10M]**

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Code No: R22A0024 **R22**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Mathematics-II

(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	Write Newton's backward interpolation formula	**L1**	**CO-I**	**[1M]**
	B	Write Gauss's Forward Interpolation Formula	**L1**	**CO-I**	**[1M]**
	C	Write the Runge Kutta Fourth order formula	**L2**	**CO-II**	**[1M]**
	D	Write formula for Simpson's $\frac{1}{3}$ Rule to find Integration	**L1**	**CO-II**	**[1M]**
	E	Form the partial differential equation by eliminating the arbitrary constants a and b from $z = ax + by + a^2 + b^2$	**L2**	**CO-III**	**[1M]**
	F	Write Lagrange's Auxiliary equations	**L1**	**CO-III**	**[1M]**
	G	Evaluate $\int_{x=0}^{a}\int_{y=0}^{b}(x^2+y^2)dydx$	**L5**	**CO-IV**	**[1M]**
	H	Evaluate $\int_0^1\int_0^1\int_0^1 dx\,dy\,dz$	**L5**	**CO-IV**	**[1M]**
	I	If $\bar{F} = x\bar{i} + y\bar{j} + z\bar{k}$, then find $curl\ \bar{F}$	**L1**	**CO-V**	**[1M]**
	J	State Stoke's theorem	**L1**	**CO-V**	**[1M]**

PART-B (50 Marks)

SECTION-I

2		Given $\sin45^\circ = 0.7071$, $\sin50^\circ = 0.7660$, $\sin55^\circ = 0.8192$ and $\sin60^\circ = 0.8660$ Find $\sin52^\circ$ using Newton's forward interpolation formula.	**L2**	**CO-I**	**[10M]**
		OR			
3	A	Apply Lagrange's formula to obtain the polynomial $f(x)$, given that $f(0)=4,\ f(1)=3,\ f(4)=24$ and $f(5)=39$	**L3**	**CO-I**	**[5M]**
	B	By the method of least squares, find the straight line that best fits the following data.	**L2**	**CO-I**	**[5M]**

x	1	2	3	4	5
y	14	27	40	55	68

SECTION-II

4	A	Find a real root of the equation $f(x) = x^3 - 4x - 9 = 0$ using bisection method correct to two decimal places	**L1**	**CO-II**	**[5M]**
	B	Evaluate $\int_0^{\pi} \sin x \, dx$ by dividing the range into 10 equal parts using Trapezoidal rule	**L5**	**CO-II**	**[5M]**
		OR			
5	A	Solve $\frac{dy}{dx} = x + y + xy,\ y(0) = 0$ for $y(0.1)$ by taking $h = 0.05$ using Euler's method	**L6**	**CO-II**	**[5M]**
	B	Solve $\frac{dy}{dx} = 1 + xy$ and $y(0) = 1$, for $y(0.1)$ using Taylor series method.	**L6**	**CO-II**	**[5M]**

SECTION-III

6	A	Solve the PDE $x^2(y-z)p + y^2(z-x)q = z^2(x-y)$	**L3**	**CO-III**	**[7M]**
	B	Solve $p\sqrt{x} + q\sqrt{y} = \sqrt{z}$	**L3**	**CO-III**	**[3M]**
		OR			
7		Using the method of separation of variables, solve $\frac{\partial u}{\partial x} = 2\frac{\partial u}{\partial t} + u$ where $u(x,0) = 6e^{-3x}$	**L4**	**CO-III**	**[10M]**

SECTION-IV

8	A	Evaluate $\iint_R y \, dx \, dy$ where R is the region bounded by the parabolas $y^2 = 4x$ and $x^2 = 4y$	**L5**	**CO-IV**	**[5M]**
	B	Evaluate $\int_0^a \int_0^x \int_0^{x+y} e^{x+y+z} \, dx \, dy \, dz$	**L5**	**CO-IV**	**[5M]**
		OR			
9	A	Evaluate $\int_0^{\infty} \int_0^{\infty} e^{-(x^2+y^2)} dx dy$ by changing to polar coordinates	**L5**	**CO-IV**	**[5M]**
	B	Evaluate $\iiint_V (xy + yz + zx)\, dx\, dy\, dz$ where V is the region of space bounded by $x = 0, x = 1, y = 0, y = 2, z = 0, z = 3$	**L5**	**CO-IV**	**[5M]**

SECTION-V

10	A	Find the directional derivative of $f(x,y,z) = xy^2 + yz^3$ at the point (2,-1,1) in the direction of the vector $i + 2j + 2k$.	**L1**	**CO-V**	**[5M]**
	B	If $\bar{r} = x\,\hat{i} + y\,\hat{j} + z\,\hat{k}$, show that $div(r^n \bar{r}) = (n+3)\, r^n$	**L1**	**CO-V**	**[5M]**
		OR			
11		Verify Green's theorem for $\oint (3x^2 - 8y^2)\, dx + (4y - 6xy)\, dy$ where C is bounded by y = $\sqrt{x}$ and y = x	**L3**	**CO-V**	**[10M]**

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R22

Code No: R22A0021

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Applied Physics

(CSE,CSE-AIML,CSE-DS & B.Tech-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	What is the importance of resonant cavity in lasers	**L1**	**CO-I**	**[1M]**
	B	What is population Inverstion?	**L4**	**CO-I**	**[1M]**
	C	Write the expression for de Broglie wavelength of matter waves in terms of energy	**L2**	**CO-II**	**[1M]**
	D	Write the normalization condition	**L2**	**CO-II**	**[1M]**
	E	Define Fermi level at T=0K	**L1**	**CO-III**	**[1M]**
	F	What is Brillouin zone	**L1**	**CO-III**	**[1M]**
	G	Calculate the wavelength of light emitted by an LED with band gap of energy 1 e.v.	**L5**	**CO-IV**	**[1M]**
	H	Draw energy diagram of PN diode	**L2**	**CO-IV**	**[1M]**
	I	Define electronic poliaization	**L1**	**CO-V**	**[1M]**
	J	What is the unit of relative permeability of a magnetic material	**L2**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Discuss the various pumping mechanisms in lasers	**L2**	**CO-I**	**[3M]**
	B	Describe the construction and working of He-Ne laser	**L2**	**CO-I**	**[7M]**
		OR			
3	A	Mention the advantages of optical fibers	**L4**	**CO-I**	**[4M]**
	B	Draw the block diagram of fiber optic communication system and explain the function of each block	**L4**	**CO-I**	**[6M]**
		SECTION-II			
4	A	Explain de Broglie hypothesis and derive the equation for de Broglie Wavelength	**L2**	**CO-II**	**[6M]**
	B	List out the properties of matter waves	**L3**	**CO-II**	**[4M]**
		OR			
5	A	Describe Davisson & Germer's experiment to verify the dual nature of matter	**L2**	**CO-II**	**[5M]**

	B	Explain Heisenberg Uncertainty Principle with advantages	**L2**	**CO-II**	**[5M]**
		SECTION-III			
6	A	Explain the origin of energy bands in solids	**L4**	**CO-III**	**[3M]**
	B	Discuss the Kronig Penny model for the motion of an electron in a periodic potential	**L4**	**CO-III**	**[7M]**
		OR			
7	A	Write the assumptions, merits and drawbacks of classical free electron theory	**L2**	**CO-III**	**[5M]**
	B	Define effective mass of an electron and derive an expression for it	**L5**	**CO-III**	**[5M]**
		SECTION-IV			
8	A	What is Hall effect? Derive an expression for Hall coefficient.	**L6**	**CO-IV**	**[6M]**
	B	Discuss the V-I Characteristics of PN junction Diode.	**L6**	**CO-IV**	**[4M]**
		OR			
9	A	Derive an expression for carrier concentration of electrons in intrinsic semiconductors	**L5**	**CO-IV**	**[6M]**
	B	Write a note on LED	**L2**	**CO-IV**	**[4M]**
		SECTION-V			
10	A	Define electronic and ionic polazation mechanisms	**L1**	**CO-V**	**[4M]**
	B	Derive an expression of electronic polarizability	**L4**	**CO-V**	**[6M]**
		OR			
11	A	Classify the magnetic materials based on their magnetic moment	**L6**	**CO-V**	**[6M]**
	B	Distinguish between soft and Hard magnetic materials	**L4**	**CO-V**	**[4M]**

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R22

Code No: R22A0022

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Engineering Chemistry

(CSE, CSE-AIML, CSE-DS & B.Tech-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	Mention the terms involved in Nernst equation.	**L2**	**CO-I**	**[1M]**
	B	What do you understand by electrochemical series?	**L2**	**CO-I**	**[1M]**
	C	What is the significance of Pilling Bed-worth's rule?	**L4**	**CO-II**	**[1M]**
	D	Discuss the differential aeration corrosion.	**L1**	**CO-II**	**[1M]**
	E	List out any two characteristics of condensation polymerization.	**L1**	**CO-III**	**[1M]**
	F	Define Biodegradable polymers with a example.	**L1**	**CO-III**	**[1M]**
	G	Write a note on classification of nano materials?	**L1**	**CO-IV**	**[1M]**
	H	Mention two examples for smart materials.	**L2**	**CO-IV**	**[1M]**
	I	Which salts are responsible for permanent hardness?	**L2**	**CO-V**	**[1M]**
	J	Define priming.	**L1**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Discuss the applications of Nernst equation.	**L2**	**CO-I**	**[5M]**
	B	Describe the construction and working of calomel electrode with the help of a neat diagram.	**L2**	**CO-I**	**[5M]**
		OR			
3	A	Differentiate primary and secondary batteries.	**L3**	**CO-I**	**[5M]**
	B	Discuss charging and discharging process of Li-ion battery.	**L2**	**CO-I**	**[5M]**
		SECTION-II			
4	A	How did the nature of environment influence the rate of corrosion?	**L4**	**CO-II**	**[5M]**
	B	Explain sacrificial anodic protection method to prevent corrosion.	**L3**	**CO-II**	**[5M]**
		OR			
5	A	Explain electroplating method.	**L3**	**CO-II**	**[5M]**
	B	What is meant by impressed current? Discuss the applications of impressed current cathodic protection	**L2**	**CO-II**	**[5M]**

method.

SECTION-III

6	A	Write down preparation, properties and applications of Bakelite?	**L2**	**CO-III**	**[5M]**
	B	Differentiate between thermoplastic and thermosetting polymers.	**L2**	**CO-III**	**[5M]**
		OR			
7	A	Brief an account on glass fibre reinforced plastic materials.	**L2**	**CO-III**	**[5M]**
	B	How did you synthesize poly lactic acid? What are the applications of PLA?	**L3**	**CO-III**	**[5M]**

SECTION-IV

8	A	Explain sol gel method with a neat labeled diagram	**L3**	**CO-IV**	**[5M]**
	B	What are the applications of nano materials to industries and medicinal field.	**L2**	**CO-IV**	**[5M]**
		OR			
9	A	Describe how CNT S are prepared by using CVD method	**L3**	**CO-IV**	**[5M]**
	B	Discuss examples and applications of piezoelectric materials.	**L2**	**CO-IV**	**[5M]**

SECTION-V

10	A	Explain the different type of units to express hardness of water and mention its inter conversion.	**L3**	**CO-V**	**[5M]**
	B	Calculate the temporary, permanent and total hardness of given sample in French degree unit (Fr^o). $Ca(HCO3)2$ = 8.1 mg/L, $Mg(HCO3)2$ = 10 mg/L, $CaCO3$ = 50 mg/L, $MgCl2$ = 9.5 mg/L, $CaCl2$ = 11.1 mg/L.	**L4**	**CO-V**	**[5M]**
		OR			
11	A	What is meant by Desalination of brackish water? How it is carried out by Reverse Osmasis?	**L3**	**CO-V**	**[5M]**
	B	Brief an account on the following i) Calgon conditioning ii) Phosphate conditioning	**L2**	**CO-V**	**[5M]**

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R22

Code No: R22A0201

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Principles of Electrical and Electronics Engineering

(EEE, ECE, IT, AE, CS&IT, CSE-CS & CSE-IOT)

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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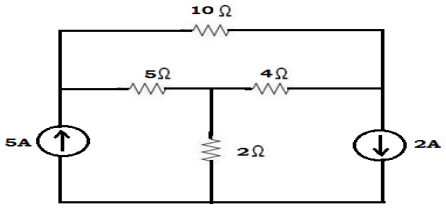
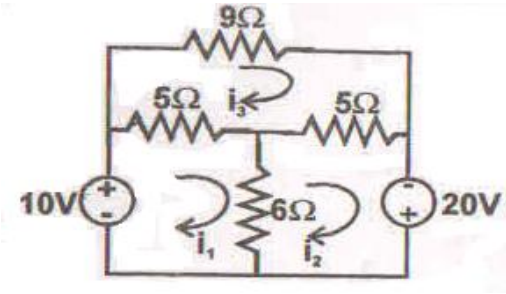
		PART-A (10 Marks) **(Write all answers of this part at one place)**	**BCLL**	**CO(s)**	**Marks**
1	A	List out Ohm's law limitations.	**L1**	**CO-I**	**[1M]**
	B	What is the equivalent resistance of two resistances, each value of R connected in series?	**L2**	**CO-I**	**[1M]**
	C	Define RMS value.	**L1**	**CO-II**	**[1M]**
	D	Why three phase circuits are superior than single phase circuits?	**L3**	**CO-II**	**[1M]**
	E	Write the EMF equation of DC Generator.	**L2**	**CO-III**	**[1M]**
	F	Define Transformer?	**L1**	**CO-III**	**[1M]**
	G	Draw the VI characteristics of PN junction diode in reverse bias mode.	**L1**	**CO-IV**	**[1M]**
	H	Draw the output waveform of half wave rectifier.	**L1**	**CO-IV**	**[1M]**
	I	What is BJT?	**L1**	**CO-V**	**[1M]**
	J	Draw the symbol of JFET.	**L1**	**CO-V**	**[1M]**
		PART-B (50 Marks) **SECTION-I**			
2	A	State and explain Kirchoff's Current Law	**L2**	**CO-I**	**[5M]**
	B	Find the node voltages for the following circuit 	**L3**	**CO-I**	**[5M]**
		OR			
3	A	State Norton's Theorem	**L2**	**CO-I**	**[2M]**
	B	Determine the mesh currents for the following circuit	**L3**	**CO-I**	**[8M]**



SECTION-II

4	A	Derive Average and RMS Values of Sinusoidal AC Current	**L4**	**CO-II**	**[6M]**
	B	Find the peak factor and form factor of sinusoidal current wave .	**L3**	**CO-II**	**[4M]**
		OR			
5	A	Derive the relation between line current and phase current in delta connected three phase system	**L4**	**CO-II**	**[5M]**
	B	Derive the relation between line voltage and phase voltage in star connected three phase system	**L3**	**CO-II**	**[5M]**

SECTION-III

6		Describe the constructional features of DC Machines	**L2**	**CO-III**	**[10M]**
		OR			
7	A	Derive EMF equation of a Transformer	**L2**	**CO-III**	**[5M]**
	B	Explain the Principle and operation of transformer	**L2**	**CO-III**	**[5M]**

SECTION-IV

8	A	Illustrate the forward bias and reverse bias of PN junction diode?	**L3**	**CO-IV**	**[5M]**
	B	What is Zener diode and discuss how it is used a voltage regulator.	**L2**	**CO-IV**	**[5M]**
		OR			
9	A	With relevant circuit diagram and waveforms write about the construction and the working of half wave rectifier.	**L3**	**CO-IV**	**[5M]**
	B	Derive the equations of rms current, avg current, ripple factor and efficiency of a full wave rectifier	**L3**	**CO-IV**	**[5M]**

SECTION-V

10	A	Describe the operation of BJT in common collector mode bias.	**L2**	**CO-V**	**[5M]**
	B	Describe the operation of BJT in common base mode bias.	**LL**	**CO-V**	**[5M]**
		OR			
11	A	With a neat sketch, explain the operation of Enhancement MOSFET.	**L2**	**CO-V**	**[5M]**
	B	With a neat circuit diagram discuss constructional features and working principle of a Depletion mode MOSFET.	**L3**	**CO-V**	**[5M]**

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R22

Code No: R22A0301

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Computer Aided Engineering Graphics

(EEE, ME, ECE, IT, AE, CS&IT, CSE-CS & CSE-IOT)

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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SECTION-I

1	A	Divide an 80 mm long straight line into five equal parts.	**L1**	**CO-I**	**[6M]**
	B	Draw an ellipse whose major and minor diameters are 150 mm and 100 mm respectively.	**L2**	**CO-I**	**[6M]**
		OR			
2	A	To inscribe a regular pentagon of side 30mm in a circle.	**L2**	**CO-I**	**[4M]**
	B	Draw regular pentagon, hexagon, and a heptagon on a common edge of side 30 mm.	**L2**	**CO-I**	**[8M]**
		SECTION-II			
3	A	Draw the projections of a point A which is at 40 mm above HP and 25 mm in front of VP.	**L2**	**CO-II**	**[4M]**
	B	A line AB 40 mm long is parallel to VP. and inclined at 30^0 to H.P. The end A is 15 mm above HP. and 20 mm in front of VP.	**L2**	**CO-II**	**[8M]**
		OR			
4	A	Draw the projections of the following points, keeping the projectors 25 mm apart. P- in the HP and 25 mm behind the VP, Q- 45 mm above the HP and 30 mm in front of the VP, R- in the VP and 50 mm above the HP, S- 30 mm below the HP and 35 mm behind the VP and T- in both the HP and VP.	**L4**	**CO-II**	**[8M]**
	B	A line AB 25mm long is parallel to VP and perpendicular to HP. Point A is 35mm above HP and 20mm in front of VP. Point B is 10mm above HP. Draw the projections of the line AB.	**L3**	**CO-II**	**[4M]**
		SECTION-III			
5	A	Draw the projections of a circular plane of 25 mm radius which is perpendicular to HP and parallel to VP.	**L4**	**CO-III**	**[6M]**
	B	A hexagonal plane of side 35 mm has its surface parallel to and 25 mm in front of VP. Draw its projections when a side is parallel to HP.	**L3**	**CO-III**	**[6M]**
		OR			
6		A pentagonal pyramid with side of base 25 and axis 60mm long is resting on one of its base on HP such that its axis is parallel to VP. Draw the projections.	**L3**	**CO-III**	**[12M]**

SECTION-IV

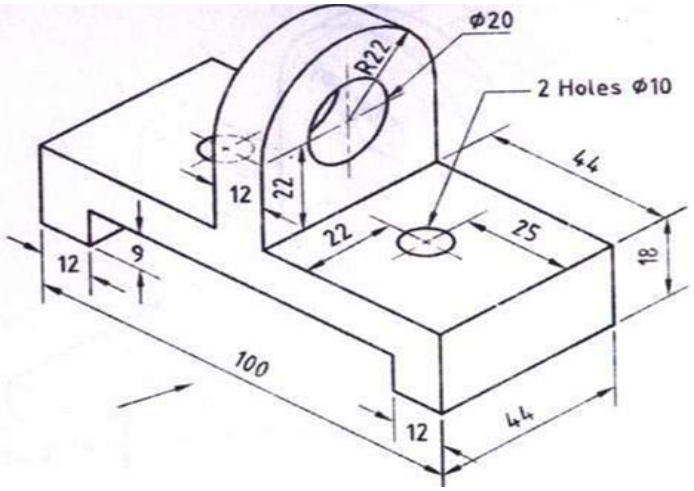
7	Draw the isometric view of a hexagonal pyramid of side of base 30mm and height 65mm, when it is resting on HP such that an edge of the base is parallel to VP.	**L3**	**CO-IV**	**[12M]**

OR

8	Draw the isometric view of a pentagon pyramid of side of base 30mm and height 65mm, when it is resting on HP such that an edge of the base is parallel to VP.	**L3**	**CO-IV**	**[12M]**

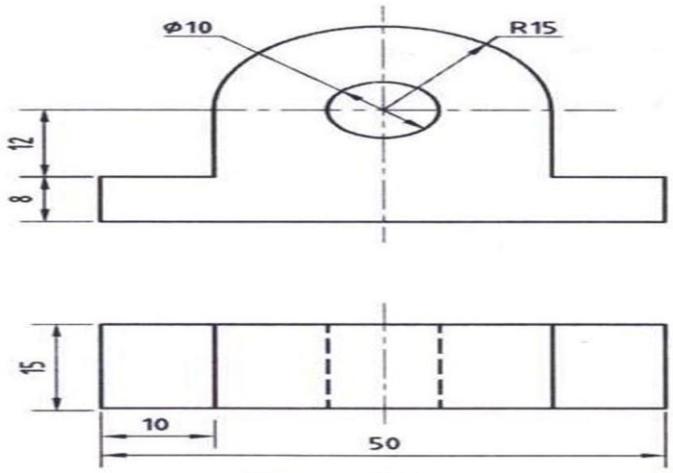
SECTION-V

9	From the given figure draw Front View, Top View & Right Side View.	**L6**	**CO-V**	**[12M]**



OR

10	Draw the isometric view from the given orthographic views as shown in figure.	**L6**	**CO-V**	**[12M]**



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Code No: R22A0502 **R22**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

I B.Tech II Semester Regular/Supplementary Examinations, June 2024

Python Programming

(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	Write a input and output function.	**L4**	**CO-I**	**[1M]**
	B	Give an example of list and dictionary.	**L2**	**CO-I**	**[1M]**
	C	Write a any two logical operator in python.	**L4**	**CO-II**	**[1M]**
	D	What is pass? Give an example.	**L1**	**CO-II**	**[1M]**
	E	Write the syntax of two-dimensional array. Give an example.	**L4**	**CO-III**	**[1M]**
	F	Give an example of array module.	**L1**	**CO-III**	**[1M]**
	G	What is calling function? Give an example.	**L1**	**CO-IV**	**[1M]**
	H	How to declare a scope of variable in python?	**L3**	**CO-IV**	**[1M]**
	I	What are the differences between text file and binary file?	**L1**	**CO-V**	**[1M]**
	J	List out any two error exceptions in python.	**L3**	**CO-V**	**[1M]**
		PART-B (50 Marks)			
		SECTION-I			
2	A	Explain basic features of Python Programing Language.	**L1**	**CO-I**	**[5M]**
	B	What are 4 built-in numeric data types in Python? Explain.	**L2**	**CO-I**	**[5M]**
		OR			
3	A	Define a dictionary? Illustrate any 5 functions with examples?	**L3**	**CO-I**	**[5M]**
	B	Write in detail about Tuples and Sets ?	**L1**	**CO-I**	**[5M]**
		SECTION-II			
4	A	What are arithmetic and relational operators used in Python? Explain.	**L4**	**CO-II**	**[5M]**
	B	Explain the precedence of operators in Python.	**L3**	**CO-II**	**[5M]**
		OR			
5	A	Write a Python program to find the given year is leap year or not.	**L6**	**CO-II**	**[5M]**
	B	Describe Python jump statements with examples.	**L3**	**CO-II**	**[5M]**
		SECTION-III			
6	A	How to working with arrays using numpy? Give any example program.	**L4**	**CO-III**	**[5M]**
	B	Discuss between the indexing and slicing on arrays.	**L4**	**CO-III**	**[5M]**
		OR			
7	A	Explain about the array module with suitable example.	**L2**	**CO-III**	**[5M]**
	B	List and explain any five methods and attributes of numpy.	**L6**	**CO-III**	**[5M]**
		SECTION-IV			
8	A	Compare fruitful and void functions.	**L4**	**CO-IV**	**[5M]**
	B	Write a Python program that counts the number of occurrences of a letter in a string, using function .	**L6**	**CO-IV**	**[5M]**
		OR			
9	A	Explain about the lambda functions with example.	**L2**	**CO-IV**	**[5M]**
	B	Write about different types of arguments in a function.	**L1**	**CO-IV**	**[5M]**
		SECTION-V			
10	A	List out the file input and output functions with examples.	**L4**	**CO-V**	**[5M]**
	B	Briefly explain the types of exceptions. Given example.	**L3**	**CO-V**	**[5M]**
		OR			
11	A	Explain about the access modes with suitable example.	**L3**	**CO-V**	**[5M]**
	B	Write the syntax of exception-handling in python. Give an example program.	**L5**	**CO-V**	**[5M]**

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