JGI	ARKA JAIN University, Jharkhand — NAAC GRADE A, ACCREDITED UNIVERSITY	[17-01-2026] END SEM EXAMINATION School of Engineering & IT	
Program	ME / EEE / CSE / AIDS / AIML	Branch	B. Tech
Subject Name	Engineering Mathematics-I	Session	Odd, 2025-26
Semester	I	Year	Jan, 2026
Time: 3 Hour Max. Marks : 70	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any Four out of Six of Section B** • **Answer Any Three out of Five of Section C** • **Possession of Mobile Phone** or any kind of **Written Material, Arguments with the Invigilator or Discussion with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Paper(s).**		
Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

Section A (Each question Carry 02 Marks from Q1-i to x – 20 Marks)

i	State Lagrange's mean value theorem	2	CO5	K1
ii	If $u = \frac{x^3+y^3}{x^2-y^2}$, then find the value of $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y}$.	2	CO4	K5
iii	If u, v, w be three functions of three variables x, y, z. Write down the formula of their Jacobian, $J = \frac{\partial(u,v,w)}{\partial(x,y,z)}$.	2	CO2	K2
iv	If $f = \sin(x^2 + y^3)$, find $\frac{\partial^2 f}{\partial y \partial x}$.	2	CO3	K4
v	Give an example of complex matrix.	2	CO1	K6
vi	State Euler's theorem.	2	CO1	K2
vii	Find the rank of $A=\begin{pmatrix} 1 & 3 & 3 \\ 0 & 0 & 0 \\ 1 & 2 & 0 \end{pmatrix}$	2	CO2	K4
viii	Write the expansion of sinx.	2	CO5	K3
ix	Find the derivative $\frac{dy}{dx}$ for $y = x^x$	2	CO5	K1
x	Find β if non-trivial solution exist for the given system of equation	2	CO4	K5

	$x - 3y + 4\beta z = 0$ $x + 2y - z = 0$ $x - y + 2z = 0$			

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question Carry 05 Marks)

Q No	QUESTIONS			
2	Find the Eigen Values and the Eigen Vector for the given matrix $\begin{bmatrix} 2 & -1 \\ 5 & -2 \end{bmatrix}$	05	CO2	K1
3	If $u = \sin^{-1}\left(\frac{x^2+y^2}{x-y}\right)$, find $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y}$.	05	CO3	K5
4	Verify Lagrange's theorem for $f(x) = x^3 - 3x$ on [0,4]. If possible, find the required point c.	05	CO6	K2
5	Evaluate If $I = \int_{x=1}^{2}\int_{y=0}^{2}(x^2y + yx^3)dxdy$	05	CO4	K1
6	Find the inverse of the matrix by Cayley Hamilton theorem A= $\begin{pmatrix} 3 & 1 \\ -1 & 2 \end{pmatrix}$	05	CO1	K5
7	Apply Maclaurin's Theorem to Obtain the Expansion of cosx upto 5 terms .	05	CO5	K3

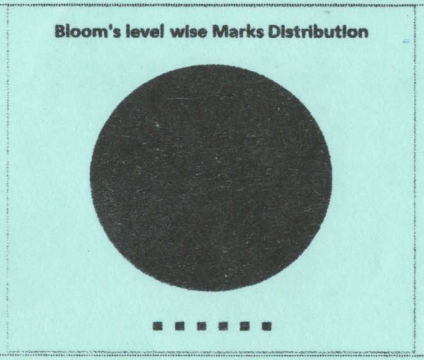
Section C (Answer any THREE out of FIVE) – 30 Marks
(Each question Carry 10 Marks)

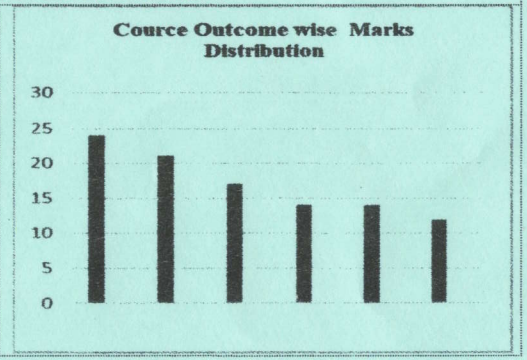
Q No	QUESTION			
8	Reduce the given matrix to normal form and hence find its rank A= $\begin{pmatrix} 1 & 3 & 4 \\ -2 & 1 & -1 \\ 3 & -1 & 2 \end{pmatrix}$	10	CO1	K2
9	If $u_1 = \frac{x_2x_3}{x_1}$, $u_2 = \frac{x_3x_1}{x_2}$ and $u_3 = \frac{x_1x_2}{x_3}$, then find Jacobian $\frac{\partial(u_1,u_2,u_3)}{\partial(x_1,x_2,x_3)}$.	10	CO4	K1
10	The circle $x^2 + y^2 = a^2$ is revolving about x axis, find the volume of the solid formed	10	CO3	K6
11	Expand log_e Cos(x+h) in powers of h by Taylor's expansion.	10	CO6	K3
12	Find the derivative $\frac{dy}{dx}$ for $y = x^x + x^{\sin x}$.	10	CO2	K4

CO- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

Course Outcomes	CO1	Remember the matrix representation of a set of linear equations and solve the solution of the system of equations
	CO2	Understand how to find the Eigenvalues and Eigen vectors
	CO3	Reduce the quadratic form to canonical form using orthogonal transformations.
	CO4	Solve the applications on the mean value theorems.
	CO5	Evaluate the improper integrals using Beta and Gamma functions
	CO6	Find the extreme values of functions of two variables with/ without constraints.

GRAPHICAL REPRESENTATION





JGI	**ARKA JAIN University** Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY		**[22-01-2026] END SEM EXAMINATION School of Engineering & IT**
Program	**ME / EEE / AIDS [IBM]**		**Branch**	**B. Tech**
Subject Name	**Computer Aided Engineering Graphics**		**Session**	**Odd, 2025-26**
Semester	**I**		**Year**	**Jan, 2026**
Time: 1.5 Hour Max. Marks : **35**	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any Five out of Six of Section B** • **Answer Any Two out of Four of Section C** • **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.			
Knowledge Level (KL)	**K1 :** Remembering	**K3 :** Applying		**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing		**K6 :** Creating

Section A (Each question Carry 01 Marks from Q1-i to v) – 05 Marks

Q. N 1	QUESTIONS	Marks	COs	KL
i	What are the sizes of A0 and A1 drawing sheets?	01	CO1	K1
ii	What is the meaning of the "H" symbol used in pencils?	01	CO1	K1
iii	Define a sectional view and state its purpose in engineering drawing.	01	CO2	K2
iv	How does a diagonal scale improve measurement accuracy?	01	CO4	K5
v	Why is the conversion of orthographic views to isometric views important?	01	CO5	K4

Section B (Answer any FIVE out of SIX) – 10 Marks
(Each question carries 02 Marks)

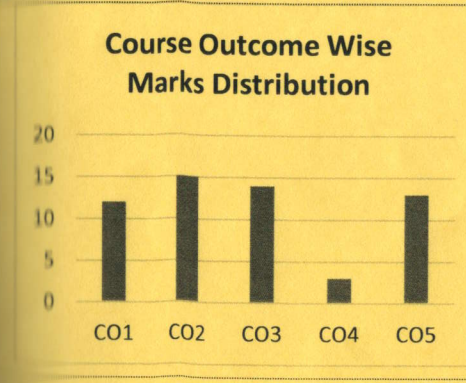
Q. No.	QUESTIONS	Marks	COs	KL
2	Draw the symbolic representation of the First-Angle Projection and Third-Angle Projection with a neat sketch.	02	CO3	K3
3	How is an auxiliary plane used in projections?	02	CO4	K3
4	Define a sectional view with an example of any simple part.	02	CO2	K2

Q. No.	
8	Draw neat sketch following points names on the projections 20 (i) Point A, at V.P. (ii) Point B, at front of th
9	Draw a neat of 1:2.5, sho long enough
10	Draw the sta and label all nomenclatur From the Cit
11	are in mm), Right Side V

KL – Knowledge Level, **PO** – Program Outcome

engineering drawings.
Sectional views of solids and Development of
drafting tools to create 2D and 3D objects
different types of solids.
projection into isometric view and vice
using computer aided drafting.

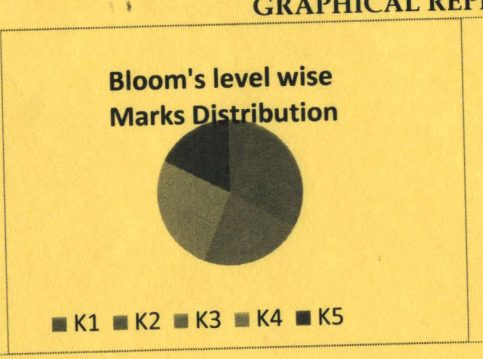
REPRESENTATION

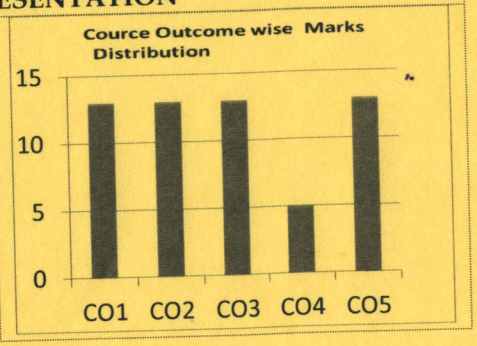


)- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

Course Outcomes	CO1	Define the cells, its structure and function, and Different types of cells and basis for Classification of living organisms
	CO2	Explain about biomolecules its structure and function and their role in a living organism How biomolecules are useful in Industry & explain about human physiology.
	CO3	Demonstrate the concept of biology and its uses in combination with different technologies for production of medicines and production of transgenic plants and animals.
	CO4	Illustrate about genes and genetic materials (DNA & RNA) present in living organisms and how they replicate, transfer & preserve vital information in living organisms.
	CO5	Integrate biological principles for developing next generation technologies.

GRAPHICAL REPRESENTATION





ARKA JAIN University Jharkhand — NAAC GRADE A ACCREDITED UNIVERSITY

[04-02-2026]
END SEM EXAMINATION
School of Engineering & IT

Program	**ME / EEE / CSE-AI&DS**	**Branch**	**B. Tech**
Subject Name	**Biology for Engineers**	**Session**	**Odd, 2025-26**
Semester	**I**	**Year**	**Jan, 2026**

Time: 1.5 Hour
Max. Marks : 35

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any Five out of Six of Section B**
- **Answer Any Two out of Four of Section C**
- **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.

Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

Section A (Each question Carry 01 Marks from Q1-i to v) – 05 Marks

Q. N 1	QUESTIONS	Marks	COs	KL
i	Define autotrophs by giving suitable example.	01	CO2	K1
ii	Give any two example of bio mimicry by human made application.	01	CO1	K2
iii	Define gene.	01	CO3	K3
iv	Why enzymes are called biological catalysts?	01	CO4	K4
v	What do mean by essential and non- essential amino acids.	01	CO5	K2

Section B (Answer any FIVE out of SIX) – 10 Marks
(Each question Carry 02 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Justify the need to study Biology with reference to environment and technology.	02	CO1	K1
3	What are the two purine & Pyrimidine of DNA and RNA?	02	CO3	K2
4	What is the general formula of amino acids?	02	CO5	K3

5	What is meant by enzyme–substrate complex?	02	CO4	K4
6	What is a conjugated protein?	02	CO4	K2
7	Compare the characteristics of Prokaryotic and Eukaryotic cell.	02	CO2	K4

Section C (Answer any TWO out of FOUR) – 20Marks
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Define Biosensor. Explain the working principle of biosensor. Discuss about the applications of biosensor.	10	CO1	K5
9	Explain the structure and nomenclature of nitrogenous bases in DNA and RNA.	10	CO3	K4
10	Explain carbohydrates and classify them with suitable examples and proper structure.	10	CO5	K2
11	Illustrate the levels of biological classification of living organisms.	10	CO2	K3

JGi **ARKA JAIN University** Jharkhand — NAAC GRADE A ACCREDITED UNIVERSITY			[20-01-2026] END SEM EXAMINATION School of Engineering & IT
Program	**ME / EEE**	**Branch**	**B. Tech**
Subject Name	**Programming for Problem Solving**	**Session**	**Odd, 2025-26**
Semester	**I**	**Year**	**Jan, 2026**
Time: 3 Hour Max. Marks : 70	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any Four out of Six of Section B** • **Answer Any Three out of Five of Section C** • **Possession of Mobile Phone** or any kind of **Written Material, Arguments with the Invigilator or Discussion with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Paper(s).**		
Knowledge Level (KL)	**K1 :** Remembering	**K3 :** Applying	**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing	**K6 :** Creating

Section A (Each question Carry 02 Marks from Q1-i to x – 20 Marks)

Q. N 1	QUESTIONS	Marks	COs	KL
i	Mention any two characteristics of an Algorithm.	2	CO1	K1
ii	Why do we need a programming language?	2	CO1	K2
iii	What is a variable? Declare a variable of integer type and assign a value.	2	CO2	K3
iv	What is the significance of the term void main()?	2	CO1	K1
v	Show the use of any two in-built string functions in C.	2	CO2	K1
vi	Define operator? Name any two categories of operator in C.	2	CO1	K1
vii	What is the use of a pointer?	2	CO5	K2
viii	Write down the syntax of switch statement.	2	CO1	K1
ix	Write down the syntax to declare a parameterised function having 2 parameters.	2	CO4	K2
x	Write down the syntax of struct data type.	2	CO5	K1

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Compare algorithm and flowchart with proper example.	05	CO1	K2
3	What is an Array? Write a program to show the sum of all elements of an array of size 10.	05	CO3	K6
4	Write a program to swap two values using pointer (call by reference).	05	CO4	K6
5	When do we use the header file math.h? Give an example.	05	CO2	K4
6	What is recursion? Write a program to show the factorial of a number using recursion.	05	CO4	K6
7	What is conditional compilation? Explain how can the size of a structure be defined?	05	CO4	K2

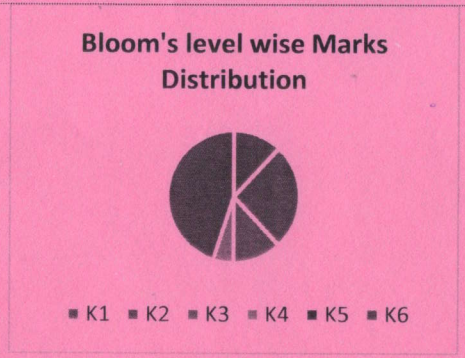
Section C (Answer any THREE out of FIVE) – 30 Marks
(Each question Carry 10 Marks)

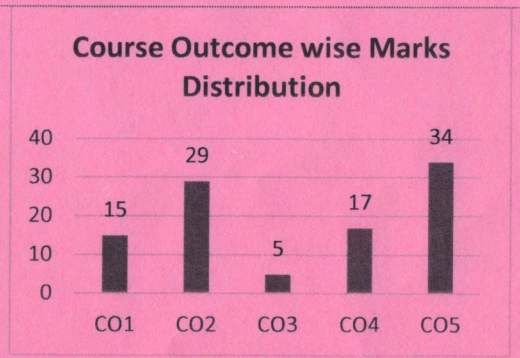
Q. No.	QUESTIONS	Marks	COs	KL
8	Compare static and extern storage classes. Also give any 2 applications of Union.	10	CO5	K3
9	Explain the syntax and purpose of fgets() and fputs(). Create a program to show the use of any 3 string functions.	10	CO5	K6
10	What is a logical operator? Write a program to show the use of union or enum data type.	10	CO5	K6
11	Compare while and do-while. Also discuss about various data types used in C.	10	CO2	K2
12	What is the use of break keyword? Mention the importance of void keyword. Write a code to show the use of return keyword.	10	CO2	K6

CO- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

Course Outcomes	CO1	Formulate simple algorithms for arithmetic and logical problems.
	CO2	Test and execute the programs and correct syntax and logical errors.
	CO3	Implement conditional branching, iteration and recursion.
	CO4	Decompose a problem into functions and synthesize a complete program using divide and conquer approach.
	CO5	To use arrays, pointers and structures to formulate algorithms and programs

GRAPHICAL REPRESENTATION





JGi	**ARKA JAIN University** Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	[02-02-2026] END SEM EXAMINATION School of Engineering &IT

Program	ME / EEE / AIDS(IBM)	**Branch**	B. Tech
Subject Name	Sports and Yoga Or NSS/NCC	**Session**	Odd, 2025-2026
Semester	I	**Year**	Jan, 2026

Time: 1.5 Hour
Max. Marks : 35

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any Five out of Six of Section B**
- **Answer Any Two out of Four of Section C**
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Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

Section A (Each question Carry 01 Marks from Q1-i to v) – 05 Marks

Q. N 1	QUESTIONS	Marks	COs	KL
i	What is the purpose and mission of the National Cadet Corps (NCC) in India?	01	CO1	K3
ii	How does the National Cadet Corps (NCC) contribute to youth development in India?	01	CO4	K2
iii	How many players are there in a cricket team?	01	CO2	K4
iv	What are the primary benefits of practicing yoga regularly?	01	CO1	K2
v	How many players are there on the playing court for a handball team?	01	CO3	K1

Section B (Answer any FIVE out of SIX) – 10 Marks
(Each question Carry 02 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	What is the full form of FIFA in Sports?	02	CO4	K1
3	How does the work of NCC students help in strengthening the values of patriotism and discipline within the youth?	02	CO3	K3
4	What are the key benefits of participating in sports for physical and mental health?	02	CO2	K1

5	What are the duties of a goalkeeper in a football match, and how do the rules set them apart from other players?	02	CO3	K5
6	What are the key strategies for long-distance running?	02	CO2	K1
7	What role does meditation play in enhancing the benefits of yoga?	02	CO4	K2

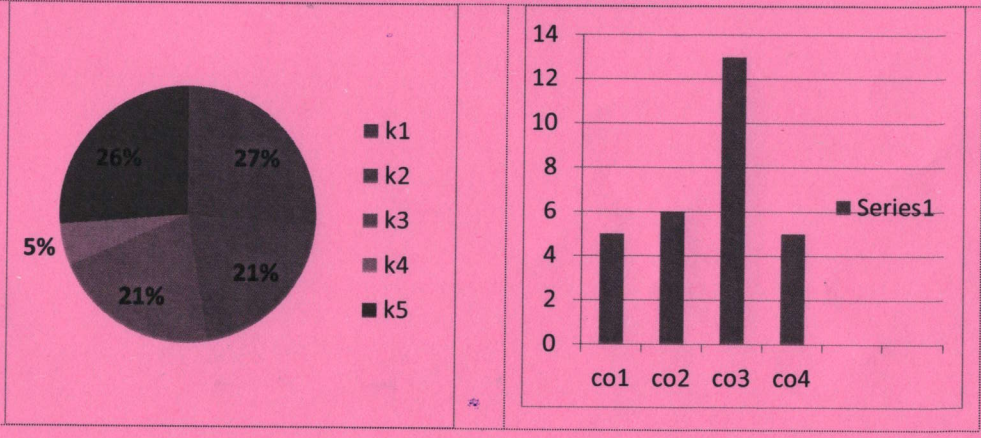
Section C (Answer any TWO out of FOUR) – 20 Marks
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	What is the significance of the National Cadet Corps (NCC) in shaping the character and discipline of youth in India?	10	CO1	K3
9	What roles do NSS students play in contributing to their communities, and how do these activities promote values like discipline and patriotism?	10	CO4	K2
10	How do the duties of NSS students align with the organization's mission to instil a sense of discipline and national pride?	10	CO1	K3
11	In what ways do NCC Cadets uphold the principles of service, and how do these responsibilities contribute to fostering patriotism and self-discipline?	10	CO4	K1

CO- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

Course Outcomes	CO1	Train volunteer youth to become confident, committed and competent leaders in all walks of life.
	CO2	Enhance awareness levels of cadets to become empowered and responsible citizens of the country.
	CO3	Undertake adventure activities to hone leadership qualities and risk taking abilities.
	CO4	Provide a platform to launch 'Good Will Ambassadors' to project the image of the country overseas.
	CO5	Provide opportunities and encourage cadets to enrich their knowledge, develop communication skills and build character.

GRAPHICAL REPRESENTATION

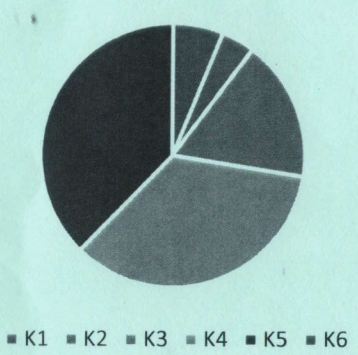


CO- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

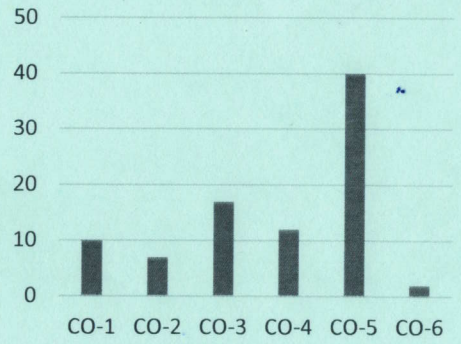
Course Outcomes	CO1	Understand the basic knowledge of electrical quantities such as current, voltage, power, energy and frequency
	CO2	Solve the Problems of DC Circuits using different Laws (KVL, KCL, Mesh Analysis and Nodal Analysis)
	CO3	Analyze the Electrical Circuits by applying Theorems.
	CO4	Analysis of single-phase and three phase ac circuits
	CO5	Identify the type of electrical machine used for that particular application.
	CO6	Design Three Phase induction motor

GRAPHICAL REPRESENTATION

Bloom's level wise Marks Distribution



Cource Outcome wise Marks Distribution



ARKA JAIN University Jharkhand — NAAC GRADE A ACCREDITED UNIVERSITY

[30-01-20026]
END SEM EXAMINATION
School of Engineering & IT

Branch	**ME / EEE / AIDS(IBM)**	**Program**	**B. Tech**
Subject Name	**Basic Electrical Engineering**	**Session**	**Odd, 2025-2026**
Semester	**I**	**Year**	**Jan, 2026**

Time: 3 Hour
Max. Marks : 70

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any Four out of Six of Section B**
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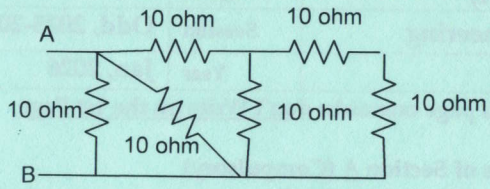
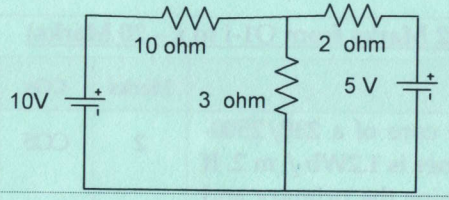
Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

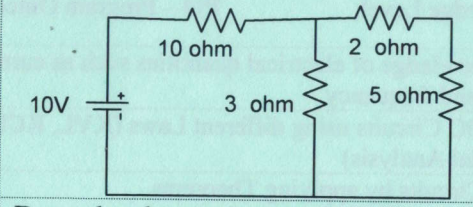
Section A (Each question Carry 02 Marks from Q1-i to x – 20 Marks)

Q. N 1	QUESTIONS	Marks	COs	KL
i	The maximum flux density in the core of a 230/2500-volts, 50-Hz single-phase transformer is 1.2Wb / m 2. If the e.m.f. per turn is 8 volt, determine the primary and secondary turns.	2	CO5	K1
ii	Write down any two difference between Ideal and practical transformer?	2	CO5	K1
iii	What are the function of brush and commutator in DC machine?	2	CO3	K2
iv	Write any limitations of superposition theorem.	2	CO6	K1
v	Define apparent power, active power and reactive power.	2	CO3	K2
vi	A three phase 4 pole 50 Hz Induction motor runs at 1500rpm .Find synchronous speed	2	C02	K1
vii	Define the back EMF.	2	C05	K5
viii	Define the voltage regulation of transformer.	2	CO5	K4
ix	Enlist any four applications DC shunt Motor.	2	CO5	K4
x	Highlight the voltage and current relationship in star and delta connection.	2	CO4	K3

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Find the equivalent resistance between A and B? 	05	CO2	K4
3	Derive the expression of current through a RL circuit for DC supply.	05	CO4	K3
4	The no-load voltage ratio in a 1-phase, 50-Hz, core-type transformer is 1,200/440. Find the number of turns in each winding if the maximum flux is to be 0.075 Wb.	05	CO5	K5
5	As shown in the figure, determine the values of current through 3 ohm branches using Thevenin theorem. 	05	CO3	K5
6	Draw the phase diagram of practical transformer for Inductive load.	05	CO5	K5
7	Derive the torque equation of dc motor	05	C04	K4

Section C (Answer any THREE out of FIVE) – 30 Marks-
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	A long-shunt compound generator delivers a load current of 50 A at 550 V and has armature, series field and shunt field resistances of 0.05Ω 0.03Ω and 250 Ω respectively. Calculate the generated voltage and the armature current. Allow 1 V per brush for contact drop.	10	CO5	K4
9	Derive the expression of power factor for the measurement of power using two wattmeter methods.	10	CO1	K3
10	Find the values of current through 5 ohm using Norton's Theorem.	10	CO3	K5
				
11	Draw the electrical equivalent circuit of single phase Transformer and write the mathematical equation of effective resistance, impedance, EMF and current referred to the primary side.	10	CO5	K5
12	A resistor and a capacitor in series are connected to a 130 V, 60 Hz supply. The impedance of the circuit is 86 ohms and the power consumed is also 86 W. Determine the value of R and C.	10	CO4	K4

JGI	**ARKA JAIN University** Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	[28-01-2026] END SEM EXAMINATION School of Engineering & IT

Program	CSE / AIML	**Branch**	B. Tech
Subject Name	Manufacturing Practice	**Session**	Odd, 2025-26
Semester	I	**Year**	Jan, 2026

Time: 3 Hour
Max. Marks : 70

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any Four out of Six of Section B**
- **Answer Any Three out of Five of Section C**
- **Possession of Mobile Phone** or any kind of **Written Material, Arguments with the Invigilator or Discussion with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Paper(s)**.

Knowledge Level (KL)			
	K1 : Remembering	**K3 :** Applying	**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing	**K6 :** Creating

Section A (Each question Carry 02 Marks from Q1-i to x – 20 Marks)

Q. N 1	QUESTIONS	Marks	COs	KL
i	What is the purpose of a bench vice?	2	CO1	K1
ii	State two safety precautions followed in a fitting shop.	2	CO1	K2
iii	What is chiseling?	2	CO2	K1
iv	What is a jack plane?	2	CO2	K2
v	Define arc welding.	2	CO3	K3
vi	State two differences between MIG and MAG welding.	2	CO3	K1
vii	Define threading in plumbing.	2	CO4	K3
viii	What is the purpose of a pipe wrench?	2	CO4	K1
ix	What is a lathe machine?	2	CO5	K2
x	Define feed rate.	2	CO5	K3

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Describe different types of files and their applications.	5	CO1	K4
3	A wooden plank of 150 mm width must be reduced to 145 mm by planing. Calculate material removal per pass if 10 passes are required.	5	CO2	K3
4	Discuss common welding defects and their remedies.	5	CO3	K6
5	Describe the tools used for PVC pipe cutting and joining.	5	CO4	K1
6	Describe parts of a lathe machine.	5	CO5	K1
7	Explain a milling machine.	5	CO5	K1

Section C (Answer any THREE out of FIVE) – 30 Marks
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Explain in detail the different holding, striking, cutting, and finishing tools used in a fitting shop.	10	CO1	K5
9	Explain in detail the construction and working of carpentry tools with neat diagrams.	10	CO2	K6
10	Discuss the process steps for preparation and execution of a lap welding job.	10	CO3	K2
11	Describe the complete procedure for making external thread on GI pipe	10	CO4	K3
12	Explain drilling, shaping, and milling machines with applications.	10	CO5	K1

CO- Course Outcomes, **KL**- Knowledge Level, **PO** – Program Outcome

Course Outcomes	CO1	To acquire skills in basic engineering practice to identify, select and use various marking, measuring, and holding, striking and cutting tools & equipment's and machines
	CO2	To relate practical knowledge of the dimensional accuracies and dimensional
	CO3	Inspect the job for the desired dimensions and shape
	CO4	To understand different casting methods, Operate, control different machines and
	CO5	To analysis the different types of defects produce during casting and welding

GRAPHICAL REPRESENTATION