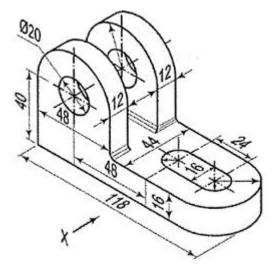
	Hall Ticket Number :						
	Code: 19A324T	R-19					
	I B.Tech. II Semester Supplementary Examinations December 2	022					
	Engineering Graphics & Design	022					
	(Computer Science and Engineering)						
	Max. Marks: 70 Time	e: 3 Ho					
	Answer any five full questions by choosing one question from each unit (5x14 = 3	70 Mar	rks )				
		Marks	со	BL			
	UNIT-I						
1.	Construct a parabola, when the distance of the focus from the directrix is 50mm.	4 4 5 4	004	10			
	Also draw tangent on normal to the curve at a point 35mm from the directrix	14IVI	CO1	L2			
2	OR	714	001	10			
2. a		7M 7M		L2			
ſ	b) Bisect a straight line AB of length 85 mm	7M	CO1	L2			
3.	<b>UNIT–II</b> Construct a cycloid having a generating circle diameter as 50mm for one						
5.	revolution clockwise. Draw a normal and tangent to a curve at a point 35mm						
	above the base line	14M	CO2	L2			
	OR						
4.	Draw an involute for a circle of diameter 50 mm. Also draw a normal and						
	tangent to the curve at a distance of 100mm from the center of circle	14M	CO2	L2			
	UNIT–III						
5.	Draw the projections of the following points on the same ground line, keeping						
	the projections 30mm apart.						
	<ul><li>a. A, in the H.P &amp; 30mm, behind the V.P</li><li>b. B, 30mm above the H.P &amp; 15mm in front of the V.P.</li></ul>						
	c. C, in the V.P & 50mm above the H.P.						
	d. D, 30mm below the H.P & 35mm behind the V.P.						
	e. E, 25mm above the H.P & 65mm behind the V.P.						
	f. F, 45mm below the H.P & 35mm in front of the V.P.						
	g. G, in both the H.P & the V.P.	14M	CO3	L3			
	OR						
6.	A point is 50mm from both the reference planes. Draw its projections in all						
	possible positions	14M	CO3	L3			
_	UNIT-IV						
7.	A regular hexagonal lamina of 22mm side, rests on one of its sides on HP. It is						
	parallel to and 15mm away from the VP. The plane is vertical. Draw its projections	14M	CO4	L3			
	OR						
8. Draw the isometric view of a pentagonal pyramid with side of base 25mm and							
	axis 60mm long. The pyramid is resting on its base on HP with an edge of the						
	base parallel to VP.	14M	CO4	L4			

UNIT–V

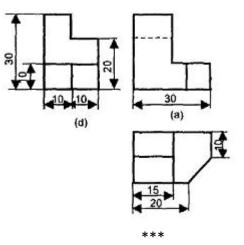
9. Draw the front view, top view and side view for the following figure.



14M CO5 L4



10. Draw the isometric view of the following figure.



14M CO5 L4

N A	December 2014 I B.Tech. II Semester Supplementary Examinations December Python Programming / Programming through Pyth (Common to CE, ME & CSE) (Common to EEE & ECE) Max. Marks: 70 Inswer any five full questions by choosing one question from each unit (5x *********	<b>on</b> Time: 3	Hours	
A	nswer any five full questions by choosing one question from each unit (5x	14 = 70 N		
່ລ)	******* UNIT–I	Marks		
a)			со	BL
. u,	Write a python program to find weather a given number is odd or even.	7M	CO1	
	Who invented python? Write what you know about python programming.	7M	CO1	
	OR			
2.	Write about operator precedence in detail	14M	CO1	
	UNIT–II			
3.	Define set and illustrate set in Python with suitable example	14M	CO2	
	OR			
ŀ.	Write a python program for temperature conversion using functions	14M	CO2	
	UNIT–III			
5.	Write a python program to count the number of vowels in a string provided		CO3	
	or o	14111	003	
6. a)	Explain the process of top-down design	7M	CO3	
b)	Differentiate between a text file and a binary file	7M		
	UNIT-IV	714	CO4	
′.a) b)	Define class and explain it with suitable example Explain the concept of an object		CO4 CO4	
D)	OR	7 101	004	
3.	Write in detail about special methods in python	14M	CO4	
	UNIT-V			
).	Define queue. Illustrate queue operations with the examples.	14M	CO5	
	OR			
).	Draw and explain the operations on stack using liked list.	14M	CO5	

	ł	Hall Ticket Number :			1
		code: 19AC22T	R-1	9	
	C	I B.Tech. II Semester Supplementary Examinations December	er 2022	)	-
		Applied Physics		-	
		(Computer Science and Engineering)			
			lime: 3		
	,	Answer any five full questions by choosing one question from each unit (5x1	4 – 70 N	naiks j	
			Marks	со	Blooms Level
		UNIT–I			
1.	a)	Distinguish Fraunhofer and Fresnel's diffraction	6M	1	2,4
	b)	Explain the function of quarter and half wave plates	8M	1	1
		OR			
2.	,	Explain the double refraction.	5M	1	2
	b)	Describe the construction and working of Nicol's prism	9M	1	1
3	a)	UNIT–II Explain the hysteresis loss of ferromagnetic material	7M	2	2
5.	a) b)	Distinguish the soft and hard magnetic materials	7M	2	2,4
	0)	OR	7 101	2	∠,⊤
4.		Describe the classification of magnetic materials	14M	2	1
		ő			
		UNIT–III			
5.	a)	Describe construction and working principle of optical fiber	9M	3	1
	b)	Mention the applications of optical fiber in medicine.	5M	3	3
		OR			
6.		Explain the Maxwell's equations for electromagnetic waves.	14M	3	2
-	- )				
1.	a)	Explain the optical communication system with the help of block diagram and discuss the function of each block	9M	3	2,3
	b)	Write the applications of optical fibers in communication	5M	3	1,2
	2)	OR	om	U	.,_
8.	a)	Mention the applications of optical fiber in medicine.	5M	3	3
	b)	Define Attenuation and explain any three attenuation losses in optical fibers	9M	3	1,2
		UNIT–V			
9.	a)	Explain the conductivity of intrinsic semiconductor with relevant expressions	7M	4	2
	b)	Distinguish the P-type and N-type semiconductors	7M	4	2,4
		OR			
10.		Derive the Einstein's relation for a semiconductor	7M	4	6
	b)	Distinguish the direct and indirect band gap semiconductors	7M	4	2.4
		***			

Code: 19A221T       R-19         I B. Tech. II Semester Supplementary Examinations December 2022       Basic Electrical and Electronics Engineering (Computer Science and Engineering)         Max. Marks: 70       Time: 3 Hours         Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks )         ********       Imit: 1         1. a) Three resistors of 3 , 4 & 5 respectively, are connected in parallel. What potential difference must be applied to the group in order that total power of 100 W may be absorbed?       7M 1 1 3         b) State the Kirchhoff laws and explain.       7M 1 1 1         CR       0         2. a) Define the following i) Resistance       6M 1 1         b) State the Ohm's law and explain with example.       8M 1 1         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		Hall Ticket Number :		_			
I B.Tech. II Semester Supplementary Examinations December 2022 Basic Electrical and Electronics Engineering) Max. Marks: 70 Answer ony five full questions by choosing one question from each unit [5x14 = 70 Marks] Marks CO BL The resistors of 3 , 4 & 5 respectively, are connected in parallel. What potential difference must be applied to the group in order that total power of 100 W may be absorbed? N 1 1 3 b) State the Kirchhoff laws and explain. NC 2. a) Define the following i) Resistance ii) Inductance iii) capacitance i) Resistance iii) capacitance NINT-II 3. a) Derive the EMF equation of DC generator. NC 4. a) Explain the operation & principle of actors. NC 4. a) Explain the operation & principle of dc motors. NA 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage. NC 6. a) Derive the EMF equation of single-phase transformer in detail. 14M 3 b) Discuss the principle of operation of 3. Induction motor. NC 6. a) Derive the EMF equation of single-phase transformer in detail. b) Discuss the principle of operation of 3. Induction motor. NC 6. a) Derive the EMF equation of single-phase transformer in detail. b) Discuss the principle of operation of 3. Induction motor. NC 6. a) Derive the EMF equation of single-phase transformer in detail. b) Discuss the principle of operation of 3. Induction motor. NC 7. a) Explain about the principle of operation of 3. Induction motor. NC 7. a) Explain about the principle of operation of 3. Induction motor. NC 7. a) Explain about the principle of operation of NPP transistor? Discuss how it is operated as an amplifier? 7. d) Explain about the principle of operation of Circuit. 7. d) 8. a) Draw the Bridge rectifier and discuss the operation of circuit. 7. d) 8. a) Draw the Bridge rectifier and discuss the operation of circuit. 7. d) 9. a) Give a comparison between induction heating and dielectric heating 7. d) 7. d) 7. d) 7. d) 7. d			-19				
Basic Electrical and Electronics Engineering (Computer Science and Engineering) Max. Marks: 70 Answer any five full questions by choosing one question from each unit (Sx14 = 70 Marks > ***********************************			22				
(Computer Science and Engineering)Max. Marks: 70Time: 3 HoursAnswer any five full questions by choosing one question from each unit (5x14 = 70 Marks)Image Science and Engineering)Image Science And International Science III) InductanceImage Science IIII) InductanceImage Science III) InductanceImage Science III) InductanceImage Science IIII) InductanceImage Science IIII InductanceImage Science IIII InductanceImage Science IIIII InductanceImage Science IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII							
Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks CO BL UNIT – 1 1. a) Three resistors of 3, 4 & 5 respectively, are connected in parallel. What potential difference must be applied to the group in order that total power of 100 W may be absorbed? 7M 1 3 b) State the Kirchhoff laws and explain. 7M 1 1 1. a) Define the following i) Resistance ii) Inductance iii) capacitance 6M 1 1 b) State the Ohm's law and explain with example. 8M 1 1 b) State the Ohm's law and explain with example. 7M 2 3 b) Classify and explain the different types of self-excited DC generators? 7M 2 3 b) Classify and explain the different types of self-excited DC generators? 7M 2 3 b) A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage. 7M 3 3 c) Describe the tests that can be performed on a single-phase transformer in detail. 14M 3 1 <b>OR</b> 6. a) Derive the EMF equation of Single-phase transformer. 7M 3 2 b) Discuss the principle of operation of PNP transistor? Discuss how it is operated as an amplifier? 7M 4 2 b) Discuss the principle of operation of PNP transistor? Discuss how it is operated as an amplifier? 7M 4 2 b) Discuss the operation of P-N junction diode with applications. 7M 4 2 c) Discuss the operation of P-N junction diode with applications. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 4 3 b) Classify the diodes and draw the V-1 characteristics of diode. 7M 5 3							
Image: Normal and the probability of the probab							
UNIT-I1. a)Three resistors of 3 , 4 & 5 respectively, are connected in parallel. What potential difference must be applied to the group in order that total power of 100 W may be absorbed?7M13b)State the Kirchhoff laws and explain.7M111OR2. a)Define the following in Resistance ii) Inductance iii) capacitance6M111UNIT-I3. a)Derive the FMF equation of DC generator.7M23b)Classify and explain the different types of self-excited DC generators?7M22ORUNIT-II5.Describe the tests that can be performed on a single-phase transformer in detail.14M31ORUNIT-III5.Describe the tests that can be performed on a single-phase transformer in detail.14M31ORCuntr-IVTORClassify and explain of single-phase transformer.7M33b)Classify and explain of single-phase transformer.7M33ORClassify and explain of single-phase transformer.7M33Describe the tests that can be performed on a single-phase transformer in detail.14M31OR1OR1 <td col<="" td=""><td></td><td></td><td>) Marks</td><td>)</td><td></td></td>	<td></td> <td></td> <td>) Marks</td> <td>)</td> <td></td>			) Marks	)		
1. a) Three resistors of 3 , 4 & 5 respectively, are connected in parallel. What potential difference must be applied to the group in order that total power of 100 W may be absorbed?       7M       1       3         b) State the Kirchhoff laws and explain.       7M       1       1       1         OR         2. a) Define the following         i) Resistance ii) Inductance iii) capacitance       6M       1       1         Define the following         i) Resistance ii) Inductance iii) capacitance       6M       1       1         Define the following         iii Resistance ii) Inductance iiii) capacitance       6M       1       1         Define the following         IIII INTICIPATION         A         Define the following         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			Marks	со	BL		
difference must be applied to the group in order that total power of 100 W may be absorbed? 7M 1 3 b) State the Kirchhoff laws and explain. 7M 1 1 cor cor 2. a) Define the following i) Resistance ii) Inductance iii) capacitance 6M 1 1 b) State the Ohm's law and explain with example. 8M 1 1 cunit-li 3. a) Derive the EMF equation of DC generator. 7M 2 3 b) Classify and explain the different types of self-excited DC generators? 7M 2 2 cor cor 4. a) Explain the operation & principle of dc motors. 7M 2 2 b) A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage. 7M 2 2 cunit-lil 5. Describe the tests that can be performed on a single-phase transformer in detail. 14M 3 1 cor cor 6. a) Derive the EMF equation of single-phase transformer. 7M 3 3 b) Discuss the principle of operation of 3 Induction motor. 7M 3 2 cunit-liv 7. a) Explain about the principle of operation of PNP transistor? Discuss how it is operated as an amplifier? 7M 4 2 b) Discuss the operation of P-N junction diode with applications. 7M 4 2 cunit-liv 7. a) Explain about the principle of operation of PNP transistor? Discuss how it is operated as an amplifier? 7M 4 2 cor cor 8. a) Draw the Bridge rectifier and discuss the operation of circuit. 7M 4 3 b) Classify the diodes and draw the V-I characteristics of diode. 7M 4 3 cunit-v 9. a) Give a comparison between induction heating and dielectric heating 7M 5 3	1 a						
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OR         2. a) Define the following i) Resistance ii) Inductance iii) capacitance b) State the Ohm's law and explain with example. IUNIT-II       6M       1       1         b) State the Ohm's law and explain with example. IUNIT-II       8M       1       1         3. a) Derive the EMF equation of DC generator. b) Classify and explain the different types of self-excited DC generators? TM       2       3         4. a) Explain the operation & principle of dc motors. b) A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage. IUNIT-III       7M       2       3         5. Describe the tests that can be performed on a single-phase transformer in detail. b) Discuss the principle of operation of 3 Induction motor. IUNIT-IV       7M       3       3         6. a) Derive the EMF equation of single-phase transformer. b) Discuss the principle of operation of 3 Induction motor. IUNIT-IV       7M       3       3         7.       2       2       2       2       2         7.       3       2       3       3       3       3         9. Discuss the operation of PNP transistor? Discuss how it is operated as an amplifier? A       4       2         7.       4       2       4       3         8. a) Draw the Bridge rectifier and discuss the operation of circuit. b) Classify the diodes and draw the V-1 characteristics of diode. IU		absorbed?	7M	1	3		
<ul> <li>2. a) Define the following <ul> <li>i) Resistance ii) Inductance iii) capacitance</li> <li>M</li> <li>M</li> <li>1</li> </ul> </li> <li>b) State the Ohm's law and explain with example. 8M</li> <li>M</li> <li>1</li> <li>1</li> <li>UNIT-II</li> </ul> <li>3. a) Derive the EMF equation of DC generator. 7M</li> <li>b) Classify and explain the different types of self-excited DC generators? 7M</li> <li>2</li> <li>2</li> <li>C<ul> <li>OR</li> </ul> </li> <li>4. a) Explain the operation &amp; principle of dc motors. 7M</li> <li>A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage. 7M</li> <li>2</li> <li>3</li> <li>5. Describe the tests that can be performed on a single-phase transformer in detail. 14M</li> <li>3</li> <li>1</li> <li>6. a) Derive the EMF equation of 3 Induction motor. 7M</li> <li>b) Discuss the principle of operation of 7NP transistor? Discuss how it is operated as an amplifier? 7M</li> <li>4</li> <li>2</li> <li>b) Discuss the operation of P-N junction diode with applications. 7M</li> <li>4</li> <li>3</li> <li>4</li> <li>5</li> <li>a) Draw the Bridge rectifier and discuss the operation of circuit. 7M</li> <li>4</li> <li>3</li> <li>4</li> <li>5</li> <li>a) Draw the Bridge rectifier and discuss the operation of circuit. 7M</li> <li>4</li> <li>3</li> <li>4</li> <li>5</li> <li>a) Draw the Bridge rectifier and discuss the operation of circuit. 7M</li> <li>4</li> <li>5</li> <li>a) Draw the Bridge rectifier and discuss the operation of circuit. 7M</li> <li>4</li> <li>5</li> <li>a) Draw the Bridge rectifier and discuss the operation of circuit. 7M</li> <li>4</li> <li>5</li> <li>a) Give a comparison between induction heating and dielectric heating 7M</li>	b	State the Kirchhoff laws and explain.	7M	1	1		
i) Resistanceii) Inductanceiii) capacitance6M11b) State the Ohm's law and explain with example.8M11UNIT-IIUNIT-IIImage: State the Ohm's law and explain with example.8M11John Classify and explain the different types of self-excited DC generators?7M22ORImage: State the Operation & principle of dc motors.7M22b) A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.7M23John CoreImage: State the Core of the tests that can be performed on a single-phase transformer in detail.14M31CoreImage: State the Principle of operation of 3 Induction motor.7M33b) Discuss the principle of operation of PNP transistor? Discuss how it is operated as an amplifier?7M42coreImage: State of the test of the test of the test of the operation of 0 circuit.7M43b) Discuss the operation of P-N junction diode with applications.7M42coreImage: State of the test of the discuss the operation of circuit.7M43b) Discuss the operation of P-N junction diode with applications.7M43coreImage: State of the discuss the operation of circuit.7M43b) Classify the diodes and draw the V-I characteristics of diode.7M43coreImage: State of the test							
b)State the Ohm's law and explain with example.8M11UNIT-II3. a)Derive the EMF equation of DC generator.7M23b)Classify and explain the different types of self-excited DC generators?7M22OR4. a)Explain the operation & principle of dc motors.7M22b)A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.7M23ORUNIT-III5.Describe the tests that can be performed on a single-phase transformer in detail.14M31ORUNIT-IV7. a)Derive the EMF equation of single-phase transformer.7M33Discuss the principle of operation of 3 Induction motor.ORORThe splain about the principle of operation of PNP transistor? Discuss how it is operated as an amplifier?ORCorOR8. a)Draw the Bridge rectifier and discuss the operation of circuit.7M43Discuss the operation of P-N junction diode with applications.7M43UNIT-V9. a)Give a comparison between induction heating and dielectric heating7M55	2. a		сM	4	4		
UNIT-II       3. a) Derive the EMF equation of DC generator.       7M       2       3         b) Classify and explain the different types of self-excited DC generators?       7M       2       2         oR       7M       2       2         4. a) Explain the operation & principle of dc motors.       7M       2       2         b) A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.       7M       2       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       2       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       2       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       2       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       2       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       3       1         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       3       3         Image: Conductors per slot is 20. Calculate the generated voltage.       7M       3       3         Image: Conductors per slot is 20. Calculate the generater voltage.       7M       3       2         I	h						
3. a)       Derive the EMF equation of DC generator.       7M       2       3         b)       Classify and explain the different types of self-excited DC generators?       7M       2       2         OR       0R       0R       2       2         4. a)       Explain the operation & principle of dc motors.       7M       2       2         b)       A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.       7M       2       3         c       UNIT-III       0       7M       3       1         5.       Describe the tests that can be performed on a single-phase transformer in detail.       14M       3       1         6. a)       Derive the EMF equation of single-phase transformer.       7M       3       3         b)       Discuss the principle of operation of 3       Induction motor.       7M       3       2         INIT-IV       7       .       as an amplifier?       7M       4       2         b)       Discuss the operation of P-N junction diode with applications.       7M       4       2         INIT-IV       7       .       a)       Classify the diodes and draw the V-I characteristics of diode.       7M       4       3 </td <td>D.</td> <td></td> <td>OW</td> <td>1</td> <td>1</td>	D.		OW	1	1		
b)       Classify and explain the different types of self-excited DC generators?       7M       2       2         OR       0R       2       2         4. a)       Explain the operation & principle of dc motors.       7M       2       2         b)       A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.       7M       2       3         UNIT-III       5.       Describe the tests that can be performed on a single-phase transformer in detail.       14M       3       1         6. a)       Derive the EMF equation of single-phase transformer.       7M       3       3         b)       Discuss the principle of operation of 3       Induction motor.       7M       3       3         c       UNIT-IV       7       3       2       2         7. a)       Explain about the principle of operation of PNP transistor? Discuss how it is operated as an amplifier?       7M       4       2         b)       Discuss the operation of P-N junction diode with applications.       7M       4       2         C       OR       7       4       3       3         b)       Discuss the operation of P-N junction diode with applications.       7M       4       3       3 <td>3. a</td> <td></td> <td>7M</td> <td>2</td> <td>3</td>	3. a		7M	2	3		
4. a)       Explain the operation & principle of dc motors.       7M       2       2         b)       A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.       7M       2       3         UNIT-III       0       1       1       3       1         5.       Describe the tests that can be performed on a single-phase transformer in detail.       14M       3       1         6. a)       Derive the EMF equation of single-phase transformer.       7M       3       2         b)       Discuss the principle of operation of 3       Induction motor.       7M       3       2         Image: Comparison between an applifier?       7M       4       2       2         b)       Discuss the operation of P-N junction diode with applications.       7M       4       2         cont       0R       1       2       3         Image: Comparison of P-N junction diode with applications.       7M       4       2         b)       Discuss the operation of P-N junction diode with applications.       7M       4       3         cont       0       UNIT-V       1       3       3         9.       a)       Draw the Bridge rectifier and discuss the operation of			7M				
b)A 4-pole lap wound d.c generator is running at 1500 rpm, flux is 7 mwb, number of slots is 52, conductors per slot is 20. Calculate the generated voltage.7M235.Describe the tests that can be performed on a single-phase transformer in detail.14M31OR6. a)Derive the EMF equation of single-phase transformer.7M33b)Discuss the principle of operation of 3Induction motor.7M32UNIT-IV7. a)Explain about the principle of operation of PNP transistor? Discuss how it is operated as an amplifier?7M42OROR8. a)Draw the Bridge rectifier and discuss the operation of circuit.7M43UNIT-V9. a)Give a comparison between induction heating and dielectric heating7M53		OR					
slots is 52, conductors per slot is 20. Calculate the generated voltage.       7M       2       3         UNIT-III       UNIT-III       14M       3       1         5.       Describe the tests that can be performed on a single-phase transformer in detail.       14M       3       1         6. a)       Derive the EMF equation of single-phase transformer.       7M       3       3         b)       Discuss the principle of operation of 3       Induction motor.       7M       3       2         Image: Comparison of PNP transistor? Discuss how it is operated as an amplifier?       7M       4       2         b)       Discuss the operation of P-N junction diode with applications.       7M       4       2         Image: Comparison of P-N junction diode with applications.       7M       4       3         b)       Discuss the operation of P-N junction diode with applications.       7M       4       2         Image: Comparison between induction heating and dielectric heating       7M       4       3         9. a)       Give a comparison between induction heating and dielectric heating       7M       5       3	4. a	Explain the operation & principle of dc motors.	7M	2	2		
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8. a)       Draw the Bridge rectifier and discuss the operation of circuit.       7M       4       3         b)       Classify the diodes and draw the V-I characteristics of diode.       7M       4       3         UNIT-V       9. a)       Give a comparison between induction heating and dielectric heating       7M       5       3	b		7M	4	2		
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9. a) Give a comparison between induction heating and dielectric heating 7M 5 3	D		7 M	4	3		
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OR				Ũ			
10. Enumerate the applications of dielectric heating and induction heating. 14M 5 3	10.		14M	5	3		
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Hall Ticket Number :R-19Code: 19AC21TIB-Tech. II Semester Supplementary Examinations December 2022Differential Equations and Vector Calculus  
(Common to Al Branches)Max. Marks: 70Time: 3 Hours  
Answer any five full questions by choosing one question from each unit [5x14 = 70 Marks]Marks: 70Answer any five full questions by choosing one question from each unit [5x14 = 70 Marks]Marks: 70Answer any five full questions by choosing one question from each unit [5x14 = 70 Marks]Marks: 70Marks: 70Marks: 70Marks: 70IMITEINote: Colspan="2">Answer any five full questions by choosing one question from each unit [5x14 = 70 Marks]Marks: 70Marks: 70IMM Col 13Solve 
$$(D^2 + 3D + 2)y = e^{-1} + x^2 + CoS x14M Col 13Solve  $(D^2 + 3D + 2)y = C^2 xy to Colspan= 2x to$$$