

Discipline: Electrical Engg.	Semester: 3 rd (Session-2025-2026)	Name of the Teaching Faculty: N . C BEHERA , Sr. Lect. (Electrical)	STATUS
Subject: DCM & T	No.Of Days/Week Class Allotted = 3	Semester :From Date 01.7.26 To 05.11.2026 No. of Weeks: 15	
Week	Class Day	Theory Topics	
1 st	1 st	UNIT : 1 DC GENERATOR D.C. generator: construction, parts, materials and their functions	
	2 nd	Principle of operation of DC generator,	
	3 rd	Fleming's right hand rule,	
2 nd	1 st	Derive the emf equation of DC Generator	
	2 nd	Schematic diagrams of different types of DC generator,	
	3 rd	Armature reaction	
3 rd	1 st	Commutation,	
	2 nd	Applications of D.C. generators	
	3 rd	Questions answers and discussion	
4 th	1 st	UNIT: 2 D.C. Motors: D.C. motor: Types of DC motors, Fleming's left hand rule	
	2 nd	Principle of operation of DC Motor	
	3 rd	Back e.m.f. and its significance, Voltage equation of DC motor	
5 th	1 st	Torque and Speed; Armature torque, Shaft torque, BHP	
	2 nd	Brake test, losses, efficiency	
	3 rd	DC motor starters: Necessity, two point and three point starters	
6 th	1 st	Speed control of DC shunt and series motor: Flux and Armature control	
	2 nd	Brushless DC Motor: Construction and working	
	3 rd	Questions answers and discussion	
7 th	1 st	UNIT: 3 Single Phase Transformers Types of transformers: Shell type and core type, Construction: Parts and functions	
	2 nd	Materials used for different parts: CRGO, CRNGO, HRGO, amorphous cores,	
	3 rd	Transformer: Principle of operation	
8 th	1 st	EMF equation of transformer: Derivation, Voltage transformation ratio,	
	2 nd	Significance of transformer ratings	
	3 rd	Transformer No-load and on-load phasor diagram, Leakage reactance	
9 th	1 st	Equivalent circuit of transformer: Equivalent resistance and reactance	
	2 nd	Voltage regulation and Efficiency: Direct loading,	
	3 rd	OC/SC method	
10 th	1 st	All day efficiency Questions answers and discussion	
	2 nd	UNIT: 4 Three Phase Transformers Bank of three single phase transformers, (Y-Y, Δ-Δ, Δ-Y, Y-Δ),	
	3 rd	Single unit of three phase transformer	

11 th	1 st	Distribution and Power transformers: Construction,	
	2 nd	cooling	
	3 rd	Criteria for selection of distribution transformer, and power transformer.	
12 th	1 st	Need of parallel operation of three phase transformer Conditions for parallel operation.	
	2 nd	Polarity tests on mutually inductive coils and single phase transformers	
	3 rd	Polarity test, Phasing out test on Three-phase transformer	
13 th	1 st	Questions answers and discussion	
	2 nd	UNIT: 5 Special Purpose Transformers Single phase autotransformers: Construction,	
	3 rd	Three phase autotransformers: : Construction,	
14 th	1 st	Working,	
	2 nd	Applications.	
	3 rd	Isolation transformer: Constructional Features,	
15 th	1 st	Applications	
	2 nd	Questions answers and discussion	
	3 rd	REVISION	


 02.03.2024
HOD (Electrical)
 Govt. Polytechnic Jaipur
 At/Po-Ragadi(Jaipur Road)
 Dist.-Jaipur - 755018

Subject: Re: Recruitment of Fresh Diploma Engineering Students

From: BC Sahoo <bcsahoo@synergyindia.co.uk> on Fri, 24 Jul 2026 14:38:54

To: GPJAJPUR <principalgpjajpur@rediffmail.com>

Cc: Pradeep Srivastava <pradeep@synergyindia.co.uk>

Dear Madam,

As per telephonic communicated with you , Pl. Arrange online interview tomorrow by 3.30 p.m. the following students who are interested for early joining .

Metallurgical Stream@ 3.30 p.m.

1. Shakti Jena
2. Santosh Kumar Behera
3. Shrutiranjana Ghadai
4. Sipun Das
5. Swapnajit Boitai
6. Pyarimohan Mohanta
7. Rashmi Ranjan Sahoo
8. Rahulkumar Naik
9. Pupun Jena
10. Suvam Ojha

Mechanical Stream@4.30 p.m.

1. Soumya Ranjan Patra
2. Nalinikanta Rout
3. Satyajit Barik
4. Papun Jena

Kindly confirm the availability of your student list.

Regards,

B.C.Sahoo

SSPL-HR

From: principalgpjajpur@rediffmail.com <principalgpjajpur@rediffmail.com> on behalf of GPJAJPUR <principalgpjajpur@rediffmail.com>

Sent: 25 June 2026 19:55

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Thanking You

Principal