



NITMGH/AA/Student Notice/2019/ 241

Dated: 13-11-2019

Notification on Outcome Based Education

This is to notify to all the students that Outcome Based Education (OBE) has been implemented at NIT Meghalaya from Autumn 2019. Following points may kindly be noted for better understanding of Outcome Based Education.

1) Outcome Based Education (OBE): Outcome Based Education is a student centric teaching and learning methodology in which course delivery and assessments are planned to achieve the stated **course outcomes**. It is based on measuring standard performance through different assessment methods.

2) Need of Outcome Based Accreditation: The Outcome Based Education is essentially required for the accreditation of the B. Tech Programme of the Institute. The accreditation has been made mandatory by the Accreditation Board and the Government Organizations/Authorities. The OBE has been implemented at the Institute from the current semester, Autumn 2019 for B. Tech Programme for forth coming accreditation. The end semester question papers will be as per the enclosed format which is a part of the OBE required for accreditation. The concerned students are advised to interact with their respective course instructors to be familiar with the end semester question paper and OBE.

3) Course Outcome: Course Outcomes are the statements that describe significant and essential learning that the students have to achieve during the teaching of the course (Theory/Lab) and will be able to demonstrate at the end of the course.

4) Program Outcome: Program Outcomes are the statements that describe what the students are expected to be able to do at the time of graduation (at the end of 8th Semester). These program outcomes are called graduate attributes.

5) Knowledge Level: The various knowledge levels that the students are expected to adapt are as follows:

K1	Remembering	Ability to remember the learned materials.
K2	Understanding	Ability to comprehend the instructions and problems.
K3	Application	Ability to solve problems by applying the understanding level.
K4	Analysing	Ability to analyse complex problems and solving the same.

All are advised to extend full cooperation for successful Implementation of the Outcome Based Education.

Dean (AA) 13/11/19

Copy to:

- 1) The Director's Office, for kind information of the Director.
- 2) All Deans, for information.
- 3) All HoDs, for information.
- 4) All Faculties for information and needful
- 5) All notice Boards including E-notice board.



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**END
TERM**

Branch	Electrical and Electronics Engineering	Programme	B.Tech
Course Name	Switchgear and Protection	Semester	VI
Course Code	EE 306	Year/Period	2014/Spring
Time : 03 Hrs	Answer All Questions in Q1 Answer 4 Questions out of 6 from Q2 to Q7	Maximum Marks	100

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

Each Question Carry 02 Marks from Q1a to Q1j

Q.No	Questions	Marks	COs	KL
1a	Question related to K2/K3 level E.g. Plot the Time-current characteristic of a fuse	02	CO1	K2
1b	Question related to K2/K3 level E.g. Suggest the procedure to convert over current into earth fault relay	02	CO3	K3
1c	Question related to K2/K3 level	02	CO2	K2
1d	Question related to K2/K3 level	02	CO1	K3
1e	Question related to K2/K3 level	02	CO4	K2
1f	Question related to K2/K3 level	02	CO3	K3
1g	Question related to K2/K3 level	02	CO5	K2
1h	Question related to K2/K3 level	02	CO2	K2
1i	Question related to K2/K3 level	02	CO2	K3
1j	Question related to K2/K3 level	02	CO3	K3

Each Question Carry 20 Marks from Q2 to Q7

2a	Question related to K2 level E.g. Describe the construction, principle of operation and application of SF6 CB. How it is different from air blast CB?	05	CO1	K2
2b	Question related to K2/K3 level E.g. Discuss the solution for current chopping phenomenon.	05	CO1	K2, K3
2c	Question related to K3/K4/K5/K6 level E.g. A 100/1A bar primary current transformer supplies an over current relay setting at 50% pick-up value and has a burden of 2VA. Determine the knee point voltage and cross section of the core if the CT has 50 turns on its secondary and the fault current is 15 times the relay setting. Assume the flux density as 1.4 Wb/m ² and frequency of 50 Hz.	10	CO3	K3, K4
3a	Question related to K2 level	05	CO2	K2
3b	Question related to K2/K3 level	07	CO3	K3
3c	Question related to K3/K4/K5/K6 level	08	CO4	K4
4a	Question related to K2 level	05	CO5	K2
4b	Question related to K2/K3 level	05	CO1	K3
4c	Question related to K3/K4/K5/K6 level	10	CO3	K5
5a	Question related to K2 level	05	CO2	K2
5b	Question related to K2/K3 level	07	CO3	K3
5c	Question related to K3/K4/K5/K6 level	08	CO4	K4
6a	Question related to K2 level	05	CO5	K2
6b	Question related to K2/K3 level	05	CO1	K3
6c	Question related to K3/K4/K5/K6 level	10	CO3	K5

7a	Question related to K2 level	05	CO2	K2
7b	Question related to K2/K3 level	07	CO3	K3
7c	Question related to K3/K4/K5/K6 level	08	CO4	K4

Note:

1. All CO's should cover in Q1
2. Marks distribution will be as per course instructor from Q2 to Q7 questions.
3. The End Term Exam should carry the weight of **100 marks out of 200**

Course Outcomes	CO1	Able to acquire knowledge about switchgears and identification of its application
	CO2	Able to acquire knowledge about protective relays and identification of application
	CO3	Able to compute the fault current and design of switchgears
	CO4	Able to design of protective relays
	CO5	Able to design of protection schemes for electrical equipments
	CO6	