



**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur**  
**Direction No.4 of 2015**

**Direction issued under section 14(8) of the Maharashtra Universities Act, 1994, relating to B.E., B.Tech. & B.Arch., first to last semester in Credit Based Semester Pattern for the award of Degree of Bachelor of Engineering (four years degree course), Bachelor of Technology (four years degree course), & Bachelor of Architecture (five years degree course), Full Time in the Faculty of Engineering and Technology.**

**Whereas**, the Maharashtra Universities Act No. XXXV of 1994 has come into force with effect from 22<sup>nd</sup> July, 1994.

**AND**

**Whereas**, the amendment to the said Act came to be effected from 12<sup>th</sup> September, 2006.

**AND**

**Whereas**, the Dean of the Faculty of Engineering and Technology has concurred with the recommendations of the Board of Studies in Applied Science and Humanities, Architecture, and General Engineering in the Faculty of Engineering and Technology on 17<sup>th</sup> January 2015.

**AND**

**Whereas**, the Board of Studies in Applied Science and Humanities, Architecture, and General Engineering in the Faculty of Engineering and Technology at its meeting held on 17<sup>th</sup> January 2015, have decided to make amendments related to B.E., B.Tech. & B.Arch, first to last semester, in Credit Based Semester Pattern for award of degree of Bachelor of Engineering, Bachelor of Technology & Bachelor of Architecture of Full time in the Faculty of Engineering and Technology.

**AND**

**Whereas**, the Faculty of Engineering & Technology has consented to the draft direction for the award of B.E, B.Tech. and B.Arch degree in its meeting held on 2<sup>nd</sup> March, 2015. This Direction shall come into force from the date of its issuance.

Now, therefore, I, **Dr. Vinayak Deshpande Acting Vice-chancellor of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur** in exercise of powers vested in me under section 14(8) of the Maharashtra Universities Act, 1994, do hereby issue the following Direction pertaining to the amendment as made for B.E., B.Tech. & B.Arch, first to last semester in Credit Based Semester Pattern for award of B.E., B. Tech. and B. Arch degree in the Faculty of Engineering and Technology.

- 1.** This Direction shall be called "Direction regarding Credit Based Semester Pattern Scheme and Examination leading to B.E., B.Tech. & B.Arch first to last semester in Credit Based Semester Pattern in the Faculty of Engineering and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

2. Subject to the compliance with the provisions of this Direction and any other Ordinance which is in force from time to time shall be applicable.

**3. Special Instructions:**

- a) **A student having passed in a particular subject heads of passing of annual /semester pattern at any semester level shall be exempted from such subject heads at any level (lower/higher) of Credit Based Semester Pattern. Even if the subject is named with a new nomenclature having similar contents, shall also be exempted and such subject heads are/ shall be mentioned in the absorption scheme (as per annexure-A) provided by the respective B.O.S. for relevant semester. In case of absorption, if required, proportionate marks/grades shall be awarded to absorbed subject heads.**
- b) **If a new subject head is introduced in the Credit Based Semester Pattern, then the internal marks shall be awarded in proportion to the marks/grades earned by a student in the university/external examination in the same subject head.**
- c) **In B.E. &B.Tech., minimum passing marks for the theory subject shall be 40% of total marks & 50% for practical of total marks in respective subject head.**
- d) **In B.Arch., minimum passing marks for the theory and Design and Viva subjects shall be as per the scheme.**
- e) **Students appearing for the first time in examination of 1<sup>st</sup> Sem./3<sup>rd</sup>Sem/ 5<sup>th</sup> Sem./7<sup>th</sup>Sem./9<sup>th</sup>Sem ( New CBS Pattern) along with the examinations of 2<sup>nd</sup> Sem./4<sup>th</sup> Sem./6<sup>th</sup>Sem/ 8<sup>th</sup>Sem/10<sup>th</sup>Sem. (New CBS Pattern), shall be treated as regular examinee, provided they have completed the term work successfully (the term work completion certificate should be issued by the concerned Head of the Institution).**
- f) **Any student getting absorbed in CBS pattern at III semester level and who could not clear the “Social Science” subject paper of B.E. I year ( annual pattern) at university examination level should be awarded the marks in the “Ethical Science” subject of II semester of CBS pattern in proportion to the marks earned by him/her in the internal assessment of the “Social Science” subject of B.E. I year (annual pattern).Such students who have completed the term work of B.E. I year (annual pattern) shall not be required to appear in the internal examination of “Ethical Science” subject of II semester of CBS pattern (applicable to only 1<sup>st</sup> to 4<sup>th</sup> semester).**
- g) **All the failure students of old semester pattern under Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur of Autonomous Colleges shall be absorbed as per the scheme of examination and syllabus of Autonomous Colleges hereinafter.**

- h) Student being absorbed in CBS pattern shall be exempted from the subject/s which he/she has cleared in the old semester pattern as per the absorption scheme provided by the concern B.O.S. However the subject/s which he/she has not cleared in the old semester pattern and having no equivalent subject at any level of CBS pattern shall not be considered during the absorption irrespective of the status of the result of that subject.

4. The A.T.K.T. Rules for B.E./B.Tech./B.Arch. shall be as follows :

**Table No.1**

Admission to Semester	Candidate should have passed in all subject heads of following examination of the university	Status of the term work	Candidate should have passed in 2/3 <sup>rd</sup> of total subject heads of the following examination taken together
I	As per eligibility	--	---
II	----	I Sem term work should have been completed	--
III	----	--	I and II Semester
IV	----	III Sem term work should have been completed	I and II Semester
V	I and II Semester	--	III and IV Semester
VI	I and II Semester	V Sem term work should have been completed	III and IV Semester
VII	III and IV Semester	--	V and VI Semester
VIII	III and IV Semester	VII Sem term work should have been completed	V and VI Semester
IX	V and VI Semester	--	VII & VIII Semester
X	V and VI Semester	IX Sem term work should have been completed	VII & VIII Semester

**Note:**

- i) For calculation of passing heads, any decimal fraction should be rounded off to lower digit.
  - ii) The passing heads shall include all the credit and audit subject heads.
5. Students failing under old semester pattern shall be provided maximum five attempts to clear the subject(s), after which they shall be absorbed in the new scheme (CBS).
- Whereas,** any student willing to opt for New Credit Based Semester Scheme shall be absorbed as per the absorption schemes provided by relevant Board of Studies. However, student will have to appear for the examinations under Credit Based Semester Scheme for the matchable subjects in which student has not cleared the subject in Semester Pattern Scheme/Annual Pattern.
6. i)The Scope of subject shall be as indicated in the syllabus.
  - ii)The medium of instruction and examination shall be English.

7. The provisions of Ordinance no. 7(a) relating to “condonation of deficiency of marks” for passing an examination and of Ordinance no. 10 as amended up-to-date relating to “exemptions and compartments” shall apply to the examination under this Ordinance.
8. An Examinee who does not pass or who fails to present himself/herself for the examination(s) shall be eligible for **reappearing** in the same examination on payment of a fresh fee and as such other fees as may be prescribed from time to time. However, **readmission** to semester should be allowed only when a regular session is running for a particular semester.
- 9. Scheme of Absorption for Yearly to Credit Based Semester Pattern of First Year B.E. Engineering.**

**Table No.2\***

As Per RTM Nagpur University Yearly Pattern Scheme				As Per RTM Nagpur University Credit Based Semester Pattern		
Semester – I						
Sr. No	Subject Code	Subject	Th / Pr	Subject Code	Subject	Th / Pr
1	CHUEMTN-1	Engineering Mathematics – I	Theory	BESI-1	Applied Mathematics – I	Theory
2	CHUEMTN-3T	Applied Physics	Theory	BESI-2T	Engineering Physics	Theory
3	CHUEMTN-3P	Applied Physics Laboratory	Practical	BESI-2P	Engineering Physics laboratory	Practical
4	CHUEMTN-4T	Applied Chemistry	Theory	BESI-3T	Engineering Chemistry	Theory
5	CHUEMTN-4P	Applied Chemistry Laboratory	Practical	BESI-3P	Engineering Chemistry laboratory	Practical
6	CHUEMTN-9T	Electrical Engineering	Theory	BESI-4T	Basic Electrical Engineering	Theory
7	CHUEMTN-9P	Electrical Engineering Laboratory	Practical	BESI-4P	Basic Electrical Engineering laboratory	Practical
8	CHUE MTN-5	English	Theory	BESI-7	Communication Skill Laboratory	Practical
9				BESI-8	Computational skill	Practical
10				BESI-5	Basics of Civil Engineering	Theory
11	CHUEMTN-8T	Engineering Drawing	Theory	BESI-6T	Engineering Graphics-I	Theory
12	CHUEMTN-8P	Engineering Drawing Laboratory	Practical	BESI-6P	Engineering Graphics-I	Practical
Semester - II						
Sr. No.	Subject Code	Subject	Th / Pr	Subject Code	Subject	Th / Pr
1	CHUEMTN-2	Engineering Mathematics – II	Theory	BESII-1	Applied Mathematics – II	Theory
2	CHUEMTN-3T	Applied Physics	Theory	BESII-2T	Advanced Physics	Theory
3	CHUEMTN-3P	Applied Physics Laboratory	Practical	BESII-2P	Advanced Physics Laboratory	Practical
4	CHUEMTN-4T	Applied Chemistry	Theory	BESII-3T	Materials Chemistry	Theory
5	CHUEMTN-4P	Applied Chemistry Laboratory	Practical	BESII-3P	Materials Chemistry Laboratory	Practical
6	CHUEMTN-7T	Engineering Mechanics	Theory	BESII-4T	Engineering Mechanics	Theory

7	CHUEMTN-7P	Engineering Mechanics Laboratory	Practical	BESII-4P	Engineering Mechanics Laboratory	Practical
8	CHUEMTN-6	Social Science	Theory		Ethical Sciences	Theory
9	CHUEMTN-9T	Electrical Engineering	Theory	BESII-8	Advanced Electrical Engineering	Theory
10	CHUEMTN-10	Workshop	Practical	BESII-7	Workshop	Practical
11	CHUEMTN-8P	Engineering Drawing Laboratory	Practical	BESI-6P	Engineering Graphics-I	Practical

**\*Note:**

- i. Communication Skill shall be taught by a qualified and competent teaching faculty and shall be assigned to the Board of Studies of Applied Sciences and Humanities.
- ii. Computational Skill shall be taught by a qualified and competent teaching faculty and shall be assigned to the Board of Studies of CS/CT/IT/CSE.
- iii. The students taking admission to direct B.E. Second Year (Diploma Holder) old pattern should be exempted from Applied Mathematics-I.
- iv. The students taking admission to 2<sup>nd</sup> year having passed B.Sc. shall have to appear for the examination of Engineering Graphics-I (BESI-6T,6P), Basics of Civil Engineering ( BESI-5) and Computational Skill (BESI-8) of 1<sup>st</sup> semester of CBS pattern and Engineering Mechanics (BESII-4T,4P) of 2<sup>nd</sup> semester of CBS pattern.

**10. The following note will be applicable after implementation of semester pattern:**

- i) The A.T.K.T. Rules shall be applicable as per **Table No. 1**, in which First Year B.E. shall be read as First and Second Semester.
- ii) The marks will be allotted in all examinations which will include college assessment marks and the total marks for each Theory / Practical shall be converted into Grades as per **Table No.3**.
- iii) SGPA shall be calculated based on Grade Points corresponding to percentage of marks as given in **Table No.3** and the Credits allotted to respective Theory / Practical shown in the scheme for respective semester.
- iv) SGPA shall be computed for every semester as per formulae (1) and CGPA shall be computed only in VIII semester.

$$SGPA = \frac{C1 \times G1 + C2 \times G2 + \dots + Cn \times Gn}{C1 + C2 + \dots + Cn} \dots \dots (1)$$

**Where:**

C= Credit of individual Theory / Practical

G = Corresponding Grade Point obtained in the respective Theory /Practical.

n = Number of subject heads in a given semester

- v) The CGPA of VIII semester shall be calculated based on SGPA of VII and SGPA of VIII semester taken together as per formulae (2)

$$CGPA = \frac{(SGPA)_{VII} \times (Cr)_{VII} + (SGPA)_{VIII} \times (Cr)_{VIII}}{(Cr)_{VII} + (Cr)_{VIII}} \dots \dots (2)$$

**Where:**

(SGPA)<sub>VII</sub> = SGPA of VII Semester

(Cr)<sub>VII</sub> = Total Credits for VII Semester

(SGPA)<sub>VIII</sub> = SGPA of VIII Semester

(Cr)<sub>VIII</sub> = Total Credits for VIII Semester

SGPA = Semester Grade Point Average

CGPA = Cumulative Grade Point Average

CGPA equal to 6.75 and above shall be considered as equivalent to First Class and CGPA equal to 8.25 and above shall be considered as equivalent to Distinction on Grade Card of VIII Semester as a footnote. Equivalent percentage calculation will be based on the following formula:

$$\text{Equivalent \%} = (\text{CGPA} - 0.75) \times 10$$

**Table No.3**

THEORY			PRACTICAL		
Grade	Percentage of Marks	Grade Points	Grade	Percentage of Marks	Grade Points
<b>AA</b>	80 ≤ Marks ≤ 100	10	<b>AA</b>	85 ≤ Marks ≤ 100	10
<b>AB</b>	70 ≤ Marks < 80	9	<b>AB</b>	80 ≤ Marks < 85	9
<b>BB</b>	60 ≤ Marks < 70	8	<b>BB</b>	75 ≤ Marks < 80	8
<b>BC</b>	55 ≤ Marks < 60	7	<b>BC</b>	70 ≤ Marks < 75	7
<b>CC</b>	50 ≤ Marks < 55	6	<b>CC</b>	65 ≤ Marks < 70	6
<b>CD</b>	45 ≤ Marks < 50	5	<b>CD</b>	60 ≤ Marks < 65	5
<b>DD</b>	40 ≤ Marks < 45	4	<b>DD</b>	50 ≤ Marks < 60	4
<b>FF</b>	00 ≤ Marks < 40	0	<b>FF</b>	00 ≤ Marks < 50	0
<b>ZZ</b>	Absent in Examination	--	<b>ZZ</b>	Absent in Examination	--

**11.** As soon as possible, after the examination, the Board of Examinations shall publish a list of successful examinees and the degree shall be awarded based on SGPA of 7<sup>th</sup> and 8<sup>th</sup> semester taken together and CGPA thereon for B.E. and B.Tech. Students and 7<sup>th</sup> to 10<sup>th</sup> semester for B.Arch. students. .

**12.** I, further direct that the aforesaid Direction shall come into force from the date of issuance and shall remain in force till the relevant Ordinance comes into force in accordance with the provisions of Maharashtra Universities Act, 1994 and the relevant provisions published by this Direction shall be repealed from the existing Directions.

Nagpur  
Date: 19/3/2015

Sd/-  
**Dr.V.S.Deshpande**  
Acting Vice-Chancellor

## Annexure -A

The Absorption/ Machable Scheme Appendix for Semesters shall be as detailed in the following table-

Sr. No.	B.E. (Branch)	Board of Studies	Scheme of Examinations & Absorption Scheme Appendix
1.	Civil Engineering	Civil Engineering	<b>A</b>
2.	Mechanical Engineering	Mechanical Engineering	<b>B</b>
3.	Electrical Engineering	Electrical Engineering	<b>C</b>
4.	Electronics Engineering	Electronics Engineering	<b>D</b>
5.	Electronics & Tele-Communication Engineering	Electronics Engineering	<b>E</b>
6.	Electronics & Communication Engineering	Electronics Engineering	<b>F</b>
7.	Aeronautical Engineering	Aeronautical Engineering	<b>G</b>
8.	Computer Science Engineering	Computer Science & Computer Technology	<b>H</b>
9.	Computer Technology	Computer Science & Computer Technology	<b>I</b>
10.	Information Technology	Information Technology & Computer Engineering	<b>J</b>
11.	Computer Engineering	Information Technology & Computer Engineering	<b>K</b>
12.	Power Engineering	Power Engineering	<b>L</b>
13.	B.Tech	Chemical Tech- Chemical Engg. Bio-Technology	<b>M</b>
14.	B.Arch	Architecture	<b>N</b>

