CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

SCHEME OF TEACHING AND EXAMINATION

M. Tech. in Steel Technology

THIRD SEMESTER

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Board of studies</th>
<th>Subject Code</th>
<th>Subject</th>
<th>Period per week</th>
<th>Scheme of Exam</th>
<th>Total Marks</th>
<th>Credits L+(T+P)/2</th>
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<td>L   T  P</td>
<td>ESE  CT   TA</td>
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<td>1</td>
<td>Metallurgical Engineering</td>
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<td>Advanced Iron Making</td>
<td>3   1  -</td>
<td>100  20   20</td>
<td>140</td>
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<tr>
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<td>Metallurgical Engineering</td>
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<td>Advanced Steel Making &amp; Continuous Casting</td>
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<td>3</td>
<td>Metallurgical Engineering</td>
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<td>Preliminary work on Dissertation and On Job Training</td>
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<td>100  -    100</td>
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<td>Metallurgical Engineering</td>
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<td>Seminar on Industrial Training and Dissertation</td>
<td>-   -  03</td>
<td>-    -    20</td>
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ESE: End Semester Examination    CT: Class Test    TA: Teacher’s Assessment
L: Lecture       T: Tutorial Practical
CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Semester : M. Tech.- III Branch : M. Tech. Steel Technology
Subject : Advanced Iron Making Code :
Total Theory Periods : 28 Total Tutorial Periods : 10
Total Marks in End Semester Examination : 100
Minimum number of class tests to be conducted : 02

UNIT-I
Characterization of Raw materials & their effects in sinter & Iron making

UNIT-II
Burden distribution & aerodynamics

UNIT-III
Thermodynamics & kinetics of Iron Ore Reduction.

UNIT-IV
Mathematical modeling of Blast Furnace process.

UNIT-V
Blast furnace practices & future trends in advanced countries.
CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Semester: M. Tech.- III  Branch: M. Tech. Steel Technology

Subject: Advanced Steel Making & Continuous Casting  Code:

Total Theory Periods: 28  Total Tutorial Periods: 10
Total Marks in End Semester Examination: 100
Minimum number of class tests to be conducted: 02

UNIT-I
Fundamental considerations in Slag-Metal-Gas Equilibrium in Steel making.

UNIT-II

UNIT-III
Design aspects in BOF & Continuous casting.

UNIT-IV
Automation in Steel making process.

UNIT-V
Refractories in Steel making – BOF, Ladle & Tunidish. Improvement in refractory life.
Semester: M. Tech.- III  Branch: M. Tech. Steel Technology

Subject: **Preliminary work on Dissertation and On Job Training**

Total Theory Periods: **28**
Total Tutorial Periods: **10**
Total Marks in End Semester Examination: **100**
Minimum number of class tests to be conducted: **02**

UNIT-I : Iron Making

UNIT-II : Steel Making
CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

Semester : M. Tech.- III
Branch : M. Tech. Steel Technology

Subject : Seminar on Industrial Training & Dissertation
Code :