

Code No: A109210306

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., I Mid-Term Examinations, September – 2010

METALLURGY AND MATERIAL SCIENCE

Objective Exam

Name: _____ **Hall Ticket No.**

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Which of the following crystal structures is having with all sides unequal and no angles are right []
a) Triclinic b) Rhombohedral c) Triagonal d) Monoclinic
2. Which of the following is added to cast iron to increase fluidity and graphatizing: []
a) Sulphur b) Silicon c) Phosphorus d) Manganese
3. According to Hume-Rothery which of the following is not a factor to influence the solubility of solid solutions []
a) Valence electrons b) Type of Crystal c) Size of atom or molecule d) Atomicity
4. The family of Miller indices for crystal planes is represented by ____ type of parentheses.[]
a) () b) { } c) < > d) []
5. Ferrite + cementite in equal proportions in alternate layers is called []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
6. Which of the following is not a name of nodular cast iron; []
a) Spheroidal graphitic b) spherulitic c) ductile d) chilled
7. Which of the following crystal structures is not having with all sides equal and all angles are right angles []
a) Triclinic b) Simple Cubic c) Triagonal d) Monoclinic
8. Austenite + cementite in equal proportions in alternate layers is called _____ []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
9. In which of the following cast irons the carbon is found combined form []
a) White b) malleable c) gray d) nodular
10. The bond formed by equal sharing of the electrons but contributed by one of the atoms is called []

a) Covalent b) Dative bond c) Electrovalent Bond d) Metallic Bond

Cont...2

Code No: A109210306

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Set No. 1

II Fill in the blanks:

11. The side of the BCC crystal in terms of radius of the atom is = _____
12. An equilibrium reaction as liquid on cooling gives two solids (reverse on heating) is called _____
13. The bond formed by a pool of electrons surrounded by the electropositive atoms is called _____
14. The cast iron in which all carbon is in combined form as cementite is _____
15. The effective number of atoms in FCC Crystal structure is _____
16. An equilibrium reaction as solid on cooling gives two different solids (reverse on heating) is called _____
17. The cast iron in which all carbon is in uncombined form as graphite flakes is _____
18. The composition of a hyper eutectic mixture in a Fe-FeC equilibrium is _____
19. The side of the simple cubic crystal (a) in terms of radius of the atom (r) is = _____
20. Heating to critical temperature and cooling slowly is called: _____

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Set No. 2

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., I Mid-Term Examinations, September – 2010

METALLURGY AND MATERIAL SCIENCE

Objective Exam

Name: _____ **Hall Ticket No.**

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. The family of Miller indices for crystal planes is represented by ____ type of parentheses. []
a) () b) { } c) < > d) []
2. Ferrite + cementite in equal proportions in alternate layers is called []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
3. Which of the following is not a name of nodular cast iron; []
a) Spheroidal graphitic b) spherulitic c) ductile d) chilled
4. Which of the following crystal structures is not having with all sides equal and all angles are right angles []
a) Triclinic b) Simple Cubic c) Triagonal d) Monoclinic
5. Austenite + cementite in equal proportions in alternate layers is called _____ []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
6. In which of the following cast irons the carbon is found combined form []
a) White b) malleable c) gray d) nodular
7. The bond formed by equal sharing of the electrons but contributed by one of the atoms is called _____ []
a) Covalent b) Dative bond c) Electrovalent Bond d) Metallic Bond
8. Which of the following crystal structures is having with all sides unequal and no angles are right []
a) Triclinic b) Rhombohedral c) Triagonal d) Monoclinic
9. Which of the following is added to cast iron to increase fluidity and graphatizing: []
a) Sulphur b) Silicon c) Phosphorus d) Manganese
10. According to Hume-Rothery which of the following is not a factor to influence the solubility of solid solutions []
a) Valence electrons b) Type of Crystal c) Size of atom or molecule d) Atomicity

Cont...2

Code No: A109210306

:2:

Set No. 2

II Fill in the blanks:

11. The cast iron in which all carbon is in combined form as cementite is _____
12. The effective number of atoms in FCC Crystal structure is _____
13. An equilibrium reaction as solid on cooling gives two different solids (reverse on heating) is called _____
14. The cast iron in which all carbon is in uncombined form as graphite flakes is _____
15. The composition of a hyper eutectic mixture in a Fe-FeC equilibrium is _____
16. The side of the simple cubic crystal (a) in terms of radius of the atom (r) is = _____
17. Heating to critical temperature and cooling slowly is called: _____
18. The side of the BCC crystal in terms of radius of the atom is = _____
19. An equilibrium reaction as liquid on cooling gives two solids (reverse on heating) is called _____
20. The bond formed by a pool of electrons surrounded by the electropositive atoms is called _____

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Code No: A109210306

Set No. 3

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., I Mid-Term Examinations, September – 2010

METALLURGY AND MATERIAL SCIENCE

Objective Exam

Name: _____ **Hall Ticket No.**

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Which of the following is not a name of nodular cast iron; []
a) Spheroidal graphitic b) spherulitic c) ductile d) chilled
2. Which of the following crystal structures is not having with all sides equal and all angles are right angles []
a) Triclinic b) Simple Cubic c) Triagonal d) Monoclinic
3. Austenite + cementite in equal proportions in alternate layers is called _____ []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
4. In which of the following cast irons the carbon is found combined form []
a) White b) malleable c) gray d) nodular
5. The bond formed by equal sharing of the electrons but contributed by one of the atoms is called _____ []
a) Covalent b) Dative bond c) Electrovalent Bond d) Metallic Bond
6. Which of the following crystal structures is having with all sides unequal and no angles are right []
a) Triclinic b) Rhombohedral c) Triagonal d) Monoclinic
7. Which of the following is added to cast iron to increase fluidity and graphatizing: []
a) Sulphur b) Silicon c) Phosphorus d) Manganese
8. According to Hume-Rothery which of the following is not a factor to influence the solubility of solid solutions []
a) Valence electrons b) Type of Crystal c) Size of atom or molecule d) Atomicity
9. The family of Miller indices for crystal planes is represented by _____ type of parentheses. []
a) () b) { } c) < > d) []
10. Ferrite + cementite in equal proportions in alternate layers is called []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite

Cont...2

Code No: A109210306

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Set No. 3

II Fill in the blanks:

11. An equilibrium reaction as solid on cooling gives two different solids (reverse on heating) is called _____
12. The cast iron in which all carbon is in uncombined form as graphite flakes is _____
13. The composition of a hyper eutectic mixture in a Fe-FeC equilibrium is _____
14. The side of the simple cubic crystal (a) in terms of radius of the atom (r) is = _____
15. Heating to critical temperature and cooling slowly is called: _____
16. The side of the BCC crystal in terms of radius of the atom is = _____
17. An equilibrium reaction as liquid on cooling gives two solids (reverse on heating) is called _____
18. The bond formed by a pool of electrons surrounded by the electropositive atoms is called _____
19. The cast iron in which all carbon is in combined form as cementite is _____
20. The effective number of atoms in FCC Crystal structure is _____

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Code No: A109210306

Set No. 4

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., I Mid-Term Examinations, September – 2010

METALLURGY AND MATERIAL SCIENCE

Objective Exam

Name: _____ **Hall Ticket No.**

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Austenite + cementite in equal proportions in alternate layers is called _____ []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
2. In which of the following cast irons the carbon is found combined form []
a) White b) malleable c) gray d) nodular
3. The bond formed by equal sharing of the electrons but contributed by one of the atoms is called _____ []
a) Covalent b) Dative bond c) Electrovalent Bond d) Metallic Bond
4. Which of the following crystal structures is having with all sides unequal and no angles are right []
a) Triclinic b) Rhombohedral c) Triagonal d) Monoclinic
5. Which of the following is added to cast iron to increase fluidity and graphatizing: []
a) Sulphur b) Silicon c) Phosphorus d) Manganese
6. According to Hume-Rothery which of the following is not a factor to influence the solubility of solid solutions []
a) Valence electrons b) Type of Crystal c) Size of atom or molecule d) Atomicity
7. The family of Miller indices for crystal planes is represented by ____ type of parentheses.[]
a) () b) { } c) < > d) []
8. Ferrite + cementite in equal proportions in alternate layers is called []
a) Martensite b) Ledeburite c) Pearlite d) Zeolite
9. Which of the following is not a name of nodular cast iron; []
a) Spheroidal graphitic b) spherulitic c) ductile d) chilled
10. Which of the following crystal structures is not having with all sides equal and all angles are right angles []
a) Triclinic b) Simple Cubic c) Triagonal d) Monoclinic

Cont...2

Code No: A109210306

:2:

Set No. 4

II Fill in the blanks:

11. The composition of a hyper eutectic mixture in a Fe-FeC equilibrium is _____
12. The side of the simple cubic crystal (a) in terms of radius of the atom (r) is = _____
13. Heating to critical temperature and cooling slowly is called: _____
14. The side of the BCC crystal in terms of radius of the atom is = _____
15. An equilibrium reaction as liquid on cooling gives two solids (reverse on heating) is called _____
16. The bond formed by a pool of electrons surrounded by the electropositive atoms is called _____
17. The cast iron in which all carbon is in combined form as cementite is _____
18. The effective number of atoms in FCC Crystal structure is _____
19. An equilibrium reaction as solid on cooling gives two different solids (reverse on heating) is called _____
20. The cast iron in which all carbon is in uncombined form as graphite flakes is _____

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