

Code No: 07A4EC16

R07

Set No. 2

II B.Tech II Semester Examinations, April/May 2012

MINERAL DRESSING

Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) What are the factors based on which concentration of minerals can be done?
(b) Explain the various processes of concentration based on electrical properties. [6+10]
2. (a) What is a sample? What are the errors in sampling?
(b) Describe the problems faced in the treatment of Indian Coals. [5+11]
3. (a) Distinguish between binary, ternary, quaternary particles with reference to locked particles.
(b) Explain the differences between roll crusher and Jaw crusher. [6+10]
4. (a) How are classifiers divided? Describe the operation of one classifier.
(b) Discuss classification as a means of concentration. [10+6]
5. Explain the theory of liberation in mineral dressing operations. Discuss liberation by size reduction and liberation by detachment. [16]
6. (a) Draw a neat sketch of elutriator and describe its working.
(b) Explain the working of a 'centrifuge' to study the size of the materials. [8+8]
7. (a) Explain clearly what is an ore and what is a mineral. List the reasons for beneficiation process prior to extraction.
(b) What are the various techniques of concentrating the ores? Explain. [8+8]
8. (a) Explain the working principle of classification.
(b) Distinguish between coarser, moderate and finer particles, giving their size ranges in terms of inches and mesh numbers/ sizes. [7+9]

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R07

Set No. 4

II B.Tech II Semester Examinations, April/May 2012

MINERAL DRESSING

Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Explain the working principle of classification.
(b) Distinguish between coarser, moderate and finer particles, giving their size ranges in terms of inches and mesh numbers/ sizes. [7+9]
2. (a) What are the factors based on which concentration of minerals can be done?
(b) Explain the various processes of concentration based on electrical properties. [6+10]
3. (a) What is a sample? What are the errors in sampling?
(b) Describe the problems faced in the treatment of Indian Coals. [5+11]
4. (a) How are classifiers divided? Describe the operation of one classifier.
(b) Discuss classification as a means of concentration. [10+6]
5. (a) Distinguish between binary, ternary, quaternary particles with reference to locked particles.
(b) Explain the differences between roll crusher and Jaw crusher. [6+10]
6. (a) Explain clearly what is an ore and what is a mineral. List the reasons for beneficiation process prior to extraction.
(b) What are the various techniques of concentrating the ores? Explain. [8+8]
7. (a) Draw a neat sketch of elutriator and describe its working.
(b) Explain the working of a 'centrifuge' to study the size of the materials. [8+8]
8. Explain the theory of liberation in mineral dressing operations. Discuss liberation by size reduction and liberation by detachment. [16]

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Set No. 1

II B.Tech II Semester Examinations, April/May 2012

MINERAL DRESSING

Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. (a) What is a sample? What are the errors in sampling?
(b) Describe the problems faced in the treatment of Indian Coals. [5+11]
2. (a) How are classifiers divided? Describe the operation of one classifier.
(b) Discuss classification as a means of concentration. [10+6]
3. (a) What are the factors based on which concentration of minerals can be done?
(b) Explain the various processes of concentration based on electrical properties. [6+10]
4. (a) Explain the working principle of classification.
(b) Distinguish between coarser, moderate and finer particles, giving their size ranges in terms of inches and mesh numbers/ sizes. [7+9]
5. (a) Explain clearly what is an ore and what is a mineral. List the reasons for beneficiation process prior to extraction.
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6. Explain the theory of liberation in mineral dressing operations. Discuss liberation by size reduction and liberation by detachment. [16]
7. (a) Distinguish between binary, ternary, quaternary particles with reference to locked particles.
(b) Explain the differences between roll crusher and Jaw crusher. [6+10]
8. (a) Draw a neat sketch of elutriator and describe its working.
(b) Explain the working of a 'centrifuge' to study the size of the materials. [8+8]

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R07

Set No. 3

II B.Tech II Semester Examinations, April/May 2012

MINERAL DRESSING

Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Distinguish between binary, ternary, quaternary particles with reference to locked particles.
(b) Explain the differences between roll crusher and Jaw crusher. [6+10]
2. (a) What is a sample? What are the errors in sampling?
(b) Describe the problems faced in the treatment of Indian Coals. [5+11]
3. (a) How are classifiers divided? Describe the operation of one classifier.
(b) Discuss classification as a means of concentration. [10+6]
4. (a) What are the factors based on which concentration of minerals can be done?
(b) Explain the various processes of concentration based on electrical properties. [6+10]
5. Explain the theory of liberation in mineral dressing operations. Discuss liberation by size reduction and liberation by detachment. [16]
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(b) Explain the working of a 'centrifuge' to study the size of the materials. [8+8]
8. (a) Explain the working principle of classification.
(b) Distinguish between coarser, moderate and finer particles, giving their size ranges in terms of inches and mesh numbers/ sizes. [7+9]
