

Code No: R07A1BS04

R07

Set No. 2

**I B.Tech Examinations, May 2011
APPLIED CHEMISTRY
Civil Engineering**

Time: 3 hours

Max Marks: 80

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

1. (a) What is pyrometric cone equivalent? How it is determined for a refractory?
What is its significance?
(b) Write a very short note on [6+10]
 - i. Porosity
 - ii. Thermal Conductivity
 - iii. Dimensional Stability
 - iv. Strength.
2. Write short notes on the following: [4+4+4+4]
 - (a) Sedimentation and coagulation
 - (b) Impurities in water
 - (c) Hardness of water
 - (d) Chlorination.
3. Write preparation, properties and use of
 - (a) phenol-formaldehyde resins
 - (b) silicone rubber. [16]
4. Write short notes on: [16]
 - (a) Constituents of cement,
 - (b) White cement,
 - (c) RCC,
 - (d) Tensile strength test.
5. (a) Write a critical account on electrochemical theory of corrosion.
(b) How are the metals protected against corrosion by modifying the environment
give suitable examples. [8+8]
6. Distinguish between the following: [6+6+4]
 - (a) Scales and Sludges
 - (b) Soft water and demineralised water.
 - (c) Lime soda process and demineralization of water.

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7. (a) What is Anodizing? How is Anodizing on Al carried out?
(b) How is metal spraying done on metal surfaces? What are its applications? [8+8]
8. (a) Comment on lubricants used for transformers.
(b) What are the criteria of a good with lubricant?
(c) Mention the types of greases with examples. [6+4+6]

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Set No. 4

I B.Tech Examinations, May 2011
APPLIED CHEMISTRY
Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
Questions carry equal marks

1. Write short notes on the following: [4+4+4+4]
 - (a) Sedimentation and co-agulation
 - (b) Impurities in water
 - (c) Hardness of water
 - (d) Chlorination.
2. (a) Write a critical account on electrochemical theory of corrosion.
(b) How are the metals protected against corrosion by modifying the environment give suitable examples. [8+8]
3. Write short notes on: [16]
 - (a) Constituents of cement,
 - (b) White cement,
 - (c) RCC,
 - (d) Tensile strength test.
4. (a) What is pyrometric cone equivalent? How it is determined for a refractory? What is its significance?
(b) Write a very short notes on [6+10]
 - i. Porosity
 - ii. Thermal Conductivity
 - iii. Dimensional Stability
 - iv. Strength.
5. Write preparation, properties and use of
 - (a) phenol-formaldehyde resins
 - (b) silicone rubber. [16]
6. (a) What is Anodizing? How is Anodizing on Al carried out?
(b) How is metal spraying done on metal surfaces? What are its applications? [8+8]
7. (a) Comment on lubricants used for transformers.

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(b) What are the criteria of a good with lubricant?

(c) Mention the types of greases with examples.

[6+4+6]

8. Distinguish between the following:

[6+6+4]

(a) Scales and Sludges

(b) Soft water and demineralised water.

(c) Lime soda process and demineralization of water.

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Set No. 1

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APPLIED CHEMISTRY

Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

Questions carry equal marks

1. (a) Write a critical account on electrochemical theory of corrosion.
(b) How are the metals protected against corrosion by modifying the environment give suitable examples. [8+8]
2. (a) What is pyrometric cone equivalent? How it is determined for a refractory? What is its significance?
(b) Write a very short notes on [6+10]
 - i. Porosity
 - ii. Thermal Conductivity
 - iii. Dimensional Stability
 - iv. Strength.
3. Write short notes on the following: [4+4+4+4]
 - (a) Sedimentation and co-agulation
 - (b) Impurities in water
 - (c) Hardness of water
 - (d) Chlorination.
4. Write short notes on: [16]
 - (a) Constituents of cement,
 - (b) White cement,
 - (c) RCC,
 - (d) Tensile strength test.
5. Write preparation, properties and use of
 - (a) phenol-formaldehyde resins
 - (b) silicone rubber. [16]
6. (a) Comment on lubricants used for transformers.
(b) What are the criteria of a good with lubricant?
(c) Mention the types of greases with examples. [6+4+6]
7. Distinguish between the following: [6+6+4]

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Set No. 1

- (a) Scales and Sludges
 - (b) Soft water and demineralised water.
 - (c) Lime soda process and demineralization of water.
8. (a) What is Anodizing? How is Anodizing on Al carried out?
- (b) How is metal spraying done on metal surfaces? What are its applications?
- [8+8]

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Set No. 3

**I B.Tech Examinations, May 2011
APPLIED CHEMISTRY
Civil Engineering**

Time: 3 hours

Max Marks: 80

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

1. Distinguish between the following: [6+6+4]
 - (a) Scales and Sludges
 - (b) Soft water and demineralised water.
 - (c) Lime soda process and demineralization of water.

2. Write short notes on: [16]
 - (a) Constituents of cement,
 - (b) White cement,
 - (c) RCC,
 - (d) Tensile strength test.

3. Write short notes on the following: [4+4+4+4]
 - (a) Sedimentation and co-agulation
 - (b) Impurities in water
 - (c) Hardness of water
 - (d) Chlorination.

4. (a) What is Anodizing? How is Anodizing on Al carried out?
(b) How is metal spraying done on metal surfaces? What are its applications? [8+8]

5. (a) What is pyrometric cone equivalent? How it is determined for a refractory?
What is its significance?
(b) Write a very short notes on [6+10]
 - i. Porosity
 - ii. Thermal Conductivity
 - iii. Dimensional Stability
 - iv. Strength.

6. (a) Write a critical account on electrochemical theory of corrosion.
(b) How are the metals protected against corrosion by modifying the environment
give suitable examples. [8+8]

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Set No. 3

7. (a) Comment on lubricants used for transformers.
(b) What are the criteria of a good with lubricant?
(c) Mention the types of greases with examples. [6+4+6]
8. Write preparation, properties and use of
(a) phenol-formaldehyde resins
(b) silicone rubber. [16]
