



SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code: MTE (18CE0110)

Course & Branch: B.Tech – CE

Year & Sem: II B.Tech & II Sem

Regulation: R18

UNIT-I

- 1.a) List the classifications of rocks and explain the classification based on geological formation. 5M
- b) Describe the characteristics of good building stones. 5M
2. (a) Explain the defects caused due to seasoning of timber. 5M
- (b) What are the objects of preservation of timber? 5M
3. Classify the bricks and explain the working of Hoffman's kin for the burning of bricks 10M
4. (a) Explain different types of shakes in timber. 5M
- (b) Explain defects due to seasoning 5M
5. (a) Explain various quarrying methods of stone along with their importance. 5M
- (b) Explain the process of burning bricks in Hoffman's kiln with a neat sketch 5M
6. (a) Explain various types of seasoning of Timber. 5M
- (b) What are the characteristics of good timber and its common uses in building industry? 5M
7. (a) Mention the factors to be considered while deciding a quarry site. 5M
- (b) Explain methods of quarrying. 5M
8. (a) Explain the tests required to determine the suitability of bricks for construction work 5M
- (b) With a neat sketch, explain the parts of Bull's trench kiln. 5M
9. a) Write about the classification of Trees 5M
- b) Describe the most common types of defects associated with timber. 5M
10. Write about manufacturing and defects of bricks? 10M



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UNIT-II

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| 1.a) What are the properties of cement | 5M |
| b) Explain in detail about the procedure to find consistency of cement | 5M |
| 2. Write about manufacturing of ordinary cement. | 5M |
| 3. a) What are the field tests of cement | 5M |
| b) What are the ingredients of cement? Explain them | 5M |
| 4. a) Explain chemical composition of paint? | 5M |
| b) Give the Flowchart for the preparation of Paint? | 5M |
| 5.a) Define Distemper and varnish? | 5M |
| b) Write about painting plastered surfaces and painting metal surfaces? | 5M |
| 6. What are the defects in paint and explain any five of them? | 10M |
| 7. Explain about white wash and color wash? | 10M |
| 8. a) Explain soundness and fineness test on cement? | 5M |
| b) What is the test procedure for specific gravity of cement? | 5M |
| 9.a) Write about gypsum and rubber | 5M |
| b) write about dry and wet process of cement? | 5M |
| 10. Write about | 10M |
| a. Pig iron b. Cast iron c. Steel d. Glass e. Asbestos | |



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UNIT-III

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| 1. Write about classification of aggregates | 10M |
| 2. What are the mechanical properties of coarse aggregates | 10M |
| 3. a. What do you mean by soundness of aggregate? Explain | 5M |
| b. What is alkali-aggregate reaction? And how will it affect the concrete properties. | 5M |
| 4. a. How do you conduct sieve analysis on coarse aggregate in laboratory? | 5M |
| b. Explain the test procedure for aggregate impact value test? | 5M |
| 5. Describe briefly the classification of tar and the specifications of bitumen as a building material. | 10M |
| 6. What are the mechanical properties of coarse aggregate? | 10M |
| 7. Write about M sand and explain the tests and testing of sand? | 10M |
| 8. What are the bituminous mixes? | 10M |
| 9. Describe tests and testing of bitumen? | 10M |
| 10. Write about | 10M |
| a. Bitumen material | |
| b. asphaltic material | |
| c. Aggregate crushing value | |
| d. sieve analysis of aggregate | |
| e. aggregate impact value | |



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UNIT-IV

1. Explain in detail the slump test with the help of a neat sketch. Discuss its merits and limitations. 10M
2. a. What do you understand by the term “Workability”? 5M
b. Discuss the various factors affecting the workability of concrete. 5M
3. Explain briefly the different methods to measure the workability of concrete? 10M
4. Briefly explain the manufacturing procedure of concrete. 10M
5. a. Explain the phenomenon of gain of strength of concrete with age. 5M
b Calculate the Gel/space ratio and the theoretical strength of a sample of concrete made with 500 gms of cement and 0.6 w/c ratio, on full hydration and 70% hydration. 5M
6. a. What are the various factors affecting the properties of Fibre Reinforced concrete? 5M
b. Write the various applications of Fibre Reinforced concrete. 5M
7. Explain briefly self-compacting concrete including the advantages and disadvantages
8. a. What is light weight concrete? How is it produced? 5M
b. What are the light weight aggregate concrete? 5M
9. Write about mixing and vibration of concrete? 10M
10. Write about 10M
 - a. High performance concrete
 - b. polymer concrete
 - c. fiber reinforced concrete
 - d. light weight concrete
 - e. ceramics



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UNIT V

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| 1.What is Elasticity and explain characteristics of Elasticity? | 10M |
| 2.Explain plastic deformation of metals and Tensile test? | 10M |
| 3.Define True stress-strain interpretation of tensile test? | 10M |
| 4.Discuss about Hardness test and different types of hardness tests for material? | 10M |
| 5.Explain about bending and torsion test? | 10M |
| 6.What is creep and write about factors affecting on creep? | 10M |
| 7.What is the brittle fracture of steel? | 10M |
| 8.Write about strength of ceramic and internal friction of material? | 10M |
| 9.Explain about temperature transition approach of materials? | 10M |
| 10.Discuss about standards of different materials? | 10M |
| a. Brittle | |
| b. Quasi brittle | |
| c. Elastic | |

TWO MARK QUESTIONS

UNIT –I

STONES BRICKS WOOD

- 1.What are the classification of rocks and define igneous rock?
- 2.Give any four uses of stones
- 3.What are the characteristics of good building stones?
- 4.What are the precaution should be taken in blasting?
- 5.What are the Classification of bricks?
- 6.List the defects of bricks and define any two of them
- 7.What are the ingredients and harmful substances in brick earth.
- 8.What are the classification of trees and Timber
- 9.What are the Characteristics and structural components of timber?
- 10.List the different types of Seasonings and diseases of Timber?

UNIT –II

CEMENT PAINTS& DISTEMPERS MISCELLANEOUS MATERIALS

- 1.Define Cement and list the properties of cement
- 2.What are the field & laboratory tests of cement
3. Give the composition of ordinary cement how the storage of cement
- 4.Define distemper and Varnish
- 5.List the defects of Paint and draw the flowchart for the preparation of paint
- 6.Define Pig iron and Cast iron
- 7.Give the composition and manufacturing methods of steel?
- 8.What are the uses of Glass and rubber as a Building material?

UNIT –III

BITUMEN & AGGREGATES

- 1.Define Bitumen and Asphalt.
- 2.What are the properties of Bitumen
- 3.List the different types of test for bitumen
- 4.Give the classification of Aggregates
- 5.What are the mechanical properties of aggregates

UNIT –IV

CONCRETE & SPECIAL CONCRETE

- 1.What are activities normally followed during concreting?
2. Define workability and factors affecting workability?
- 3.What are the different test to measure the workability?
- 4.What is the difference between Light weight concrete and High performance concrete
5. What are the Vibrators used for compacting and Name some concrete chemicals?

UNIT –V
MECHANICAL BEHAVIOUR AND MECHANICAL CHARACTERISTICS

1. Give the principle and characteristics of Elasticity?
2. What are the different types of hardness test?
3. Define true stress and plastic deformation of metals?
4. Give any two fundamentals and characteristics of creep?
5. What is the temperature transition approach?