

BOARD OF TECHNICAL EDUCATION

PORVORIM-GOA

November, 2008 Examinations

Programme: ARCHITECTURAL ENGINEERING

Course/Subject: BUILDING MATERIALS-I (2055)

Time Duration: 3 Hrs.

Max. Marks: 75

INSTRUCTIONS: 1.All Questions are compulsory.
2.Figures to the right indicate full marks.
3.Assume suitable additional data if required.

- Q.No.1. Answer the following: 5×3=15
- a) Write a short note on Composition of ordinary cement ?
 - b) Define the 3 Geological type of rock and give example of each ?
 - c) Sketch out a brick and label it with dimensions ?
 - d) What do you mean by "Timber" give five different places where it is used in construction.
 - e) Give five forms of steel used in construction.
- Q.No.2. Answer any Two of the following:- 2×6=12
- a) Give 8 qualities of a good stone ?
 - b) Compare Brick with stone as a building material ?
 - c) Give the various tests for Bricks ?
- Q.No.3. Answer any Two of the following:- 2×6=12
- a) Explain the classification of lime ?
 - b) Explain storage of cement ?
 - c) Explain: i) Setting action of cement
ii) Field test for cement.
- Q.No.4. Answer any Two of the following:- 2×6=12
- a) Differentiate fine aggregate and course aggregate ?
 - b) Give properties of a good mortar mix ?
 - c) Explain function of sand in mortar ?
- Q.No.5. Answer any Two of the following:- 2×6=12
- a) Explain the various defects in steel ?
 - b) Explain angle Sections and Ribbed for Steel and give their sizes ?
 - c) Differentiate between Corrugated A/C sheet roofing and clay tile roofing material ?
- Q.No.6. Answer any Two of the following:- 2×6=12
- a) What are the different defects in timber explain with sketches ?
 - b) Explain 8 market forms of Timber ?
 - c) Give 8 properties of Aluminum ?

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PORVORIM-GOA
May/June, 2009 Examinations

Programme: ARCHITECTURAL ENGINEERING

Course/Subject: BUILDING MATERIALS - I (2055)

Time Duration: 3 Hrs.

Max. Marks: 75

INSTRUCTIONS: 1. All Questions are compulsory.
2. Figures to the right indicate full marks.
3. Assume suitable additional data if required.

- Q.1) Answer any 3 in short:- (5x3=15)
- Give 5 important properties of a good cement?
 - Name five different stones and write where they are used in construction
 - Explain burning of Bricks in the process of manufacturing Bricks?
 - Give 5 qualities of a good timber?
 - Give five different places where steel is used in construction.
- Q.2) Answer any two of the following:- (2x6=12)
- Explain the types of geological stones and give examples of each with respect to use?
 - Give requirements of a good quality brick?
 - Differentiate between
 - Machine made and Handmade Bricks
 - First class and second class bricks.
- Q.3) Answer any two of the following:- (2x6=12)
- Write short note on
 - Sources of lime
 - Field test for lime
 - Give four points of difference between ordinary cement and rapid hardening cement?
 - Give 4 varieties of special cement and their use?
- Q.4) Answer any two of the following:- (2x6=12)
- Give properties of good sand?
 - Explain precautions to be taken in using mortar?
 - Explain lime mortar, mud mortar and cement mortar?
- Q.5) Answer any two of the following:- (2x6=12)
- Give 3 market sizes in the following forms of steel
 - Angle sections
 - square bars
 - channel sections
 - Ribbed for steel
 - Give 8 important properties of Mild steel?

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c) Give 4 advantages and disadvantages of clay Mangalore roofing files

Q.6) Answer any two of the following:- (2x6=12)

a) Explain four forms of Aluminium and their use in construction

b) Explain i) seasoning of timber
 ii) Storage of timber

c) Give 4 advantages and disadvantages of timber as a building material.

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