

Time: 3 hours

(Total Marks 80)

- Instructions:**
1. Question No. 1 is compulsory.
 2. Attempt any three out of remaining questions.
 3. Assume any suitable data, wherever required and state the same.

Q. No. 1) Attempt **any four** of the following.

(20M)

- a) Explain briefly the factors affecting the requirement of construction material.
- b) What qualities in bricks are essentially required from construction point of view?
- c) What are the constituents of cement?
- d) Explain method of waterproofing.
- e) Describe the vacuum concreting method.
- f) State requirements of ideal form work.

Q. No. 2)

a) Explain quarrying of stones

(7M)

b) Explain the properties of fine aggregates.

(5M)

c) Enlist the types of tests conducted on mortar? Explain any two of them with neat sketch

(8M)

Q. No. 3)

a) Explain Brick Bat coba coat used for waterproofing with neat sketch

(7M)

b) Write a short note on various operations involved during concreting

(8M)

c) State and explain the factors affecting on durability of concrete

(5M)

Q. No. 4)

a) Write a short note on glass fibre reinforced plastic.

(5M)

b) Explain in detail seasoning of timber.

(10M)

c) What are the objectives in mix design?

(5M)

Q. No. 5)

a) What is the role of transit mixer in construction?

(5M)

b) Enlist the joints in stone masonry and Explain any one of them

(7M)

c) Sketch plan and elevation of $1\frac{1}{2}$ Brick wall in single Flemish bond

(8M)

Q. No. 6)

a) Explain defects in painting

(5M)

b) Write short note on Scaffolding?

(5M)

c) State advantages and disadvantages of Shahabad stone

(5M)

d) Sketch the cross section of king post truss and labelled it

(5M)
