

2023

Building Construction

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.	a)	What are the various functions served by the foundation? Define with sketches i) Spread footings ii) Combined footings and iii) Strap footing	4+6 = 10
	b)	Differentiate between pile foundation and pier foundation. What are the different types of pile foundation? How does pier foundation differ from caisson foundation?	3+4+3=10
2.	a)	Why brick masonry is preferred over other types of masonry? Show with the help of sketches various types of closer bricks and various types of bricks bats.	4+3+3=10
	b)	Write short notes on i) Header Bond ii) Stretcher bond iii) English Bond and iv) Flemish Bond	2.5X4=10
3.	a)	Explain in brief the essential requirements of a floor. Enumerate various types of flooring materials. What are the factors for the selection of a flooring materials?	4+3+5=12
	b)	Write notes on i) Lintels and ii) Arches	4+4 = 8
4.	a)	State briefly the requirements of a staircase to be a good staircase. Show the various technical terms of a staircase with the help of figure.	4+6=10
	b)	Write notes on dimensions of a step of a staircase. Briefly describe various types of stairs.	3+7=10
5.	a)	State briefly the essential requirements of a good roof. Compare merits and demerits of flat and pitched roofs.	3+7=10
	b)	Write a note on location of doors and windows. How the sizes of doors and windows are fixed? Define Frame, shutters, horn and sill of a door.	4+4+2=10
6	a)	What do you mean by scaffolding and Formwork? What are the various component parts and various types of scaffolding? Write the requirements of formwork to be a good formwork.	2+4+4=10
	b)	What are the causes of dampness in buildings? What are the ill effects of dampness? Write the various methods adopted to make a building damp proof.	3+3+4=10