



Sanjay Ghodawat University, Kolhapur

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2017

2018-19

EXM/P/09/00

Year and Program: 2018-19
B. Arch.

School of Architecture

Year: F.Y. B.Arch

Course Code 18ARC103

Course Title B.C. M- I

Semester – I

Day and Date

Examination: ESE

Time: Max Marks: 80

Mandy 4 01 Dec 18

10:00 to 1:00 pm

Instructions:

1. Figures given to the right indicate marks of the questions.
2. Assume suitable data wherever necessary and mention it.
3. Drafting should be neat and clean

	Marks	Bloom's Level	CO
Q1. Design and draw to the scale of 1:10 the flat arch for the span 750mm window.			
a) Calculate the skew back required with formula	4		
b) Calculate the length of the extrados	2		
c) Calculate the number of bricks required for lintel.	4		
d) Draw flat arch front elevation with bricks showing centre of the arch, skewback, intrados and extrados.	20		
OR			
Design and draw L junction of one and half thick brick wall in Flemish bond.		L1,L2,L5	CO2
a) Draw alternate plan of courses to the scale 1:10.			
b) Draw front elevation of wall showing minimum 6 courses.	14		
c) Draw isometric view to a scale 1:10.	6		
d) What is the difference between English Bond and Flemish Bond?	6		
	4		
Q.2 Draw free hand neat sketches of -: any TWO			
a) Plinth formation in stone wall. Plinth height 450mm and depth of foundation 900mm.	5		
b) Draw figures of any five tools used in stone masonry construction.		L2	CO2
c) Explain with neat sketch how load is transferred in load bearing structure.	5		
	5		

Q.3 Write short notes on:- any **TWO**

- | | | | |
|---|---|----|-----|
| a) Explain in short different types of load coming on structures. Give suitable examples. | 5 | | |
| b) Which are the various methods of site exploration? | 5 | L2 | CO1 |
| c) Which are the different types of non – cohesive soil? | 5 | | |

Q.4 Write or explain in short -: any **FOUR**

- | | | | |
|--|-----|----|-----|
| a) Bearing capacity of the soil. | 2.5 | | |
| b) Why foundation is provided? | 2.5 | | |
| c) List down the non- structural elements of the building. | 2.5 | L1 | CO1 |
| d) What is lintel? Why it is provided? | 2.5 | | |
| e) Acid test for rocks. | 2.5 | | |

Q.5 Write a note on -: any **Two**

- | | | | |
|---|---|----|-----|
| a) Any five good qualities of brick. | 5 | | |
| b) Which are the different uses of stone? | 5 | L2 | CO3 |
| c) Which are the different sources of sand? | 5 | | |

Q.6 Write any **Two**

- | | | | |
|---|---|------------|-----|
| a) State harmful ingredients of the brick. | 5 | | |
| b) Write properties of good sand. | 5 | L1, L2, L3 | CO2 |
| c) Which are the various properties of flat lime? | 5 | | |
