

MANIPAL ACADEMY OF HIGHER EDUCATION**SEVENTH SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2018****SUBJECT: ARC-14-409.4 – ADVANCED STRUCTURES (2014 SCHEME)
ARC 409 – STRUCTURES VII (2010 SCHEME)**

Thursday, February 01, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 50

- ✍ Answer any FIVE FULL questions.
✍ Any missing data may suitably be assumed.

- 1A. List the general characteristics of pneumatic structures.
1B. Explain the different materials employed in pneumatic structures.
(5+5 = 10 marks)
- 2A. What are Jetties in marine structures? What are their uses? Explain the different types of Jetties employed.
2B. Compare mound type and vertical type Breakwaters.
(5+5 = 10 marks)
- 3A. List the characteristics and advantages of membrane structures.
3B. Explain the basic properties of membrane materials.
(6+4 = 10 marks)
- 4A. Under what circumstances pile foundations are provided? Give a detailed classification of piles.
4B. What are the points to be considered while fixing the depth of foundation? Explain.
(6+4 = 10 marks)
- 5A. What are the advantages of the following building materials in construction:
i) Graphene ii) Foam concrete
What are they used for?
5B. What are composites? What are their advantages in building industry? Explain.
(6+4 = 10 marks)
- 6A. What are under reamed piles? Explain with neat sketch.
6B. Explain the salient features of any tensile structure example in Architecture.
(5+5 = 10 marks)

