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F.Y. M.Tech. (Civil- Construction & Management) (Part-I) (Semester - II) (New) Examination, December - 2019 ADVANCED CONSTRUCTION (Elective-II)

Sub. Code: 72726

Day and Date: Tuesday, 03-12-2019 Total Marks: 70

Time: 2.30 p.m to 5.00 p.m.

Instructions: 1) Attempt any TWO questions from each section.

- 2) Support your answers with suitable civil engineering works & suitable sketches.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary and mention it.

SECTION-I

- Q1) a) Discuss in detail any three special types of special formwork. [9]
 - b) Describe polymer based composites and their application in construction.

[8] [9]

Q2) a) Explain in detail drainage system for land reclamation.

b) Draw a layout plan for Atomic power station. Discuss various construction aspect to be considered while planning for atomic power station. [8]

- Q3) a) Write a detailed note on composite steel and concrete construction. [9]
 - b) Write short notes on Any Three from the following.

 $[3 \times 3 = 9]$

- i) Formwork design.
- ii) Fibre reinforced polymer.
- iii) Structural improvement in land reclamation.
- iv) Power generation structures
- v) Wind mills.

SECTION-II

- Q4) a) Write a detailed note on preservation of bridges with suitable example.[9]
 - b) Discuss any two concrete pavement techniques in detail. [8]
- Q5) a) What is revibrated concrete? Discuss its suitability with civil engineering example in construction. [9]
 - b) Explain in detail the dewatering in concrete slab construction. [8]
- Q6) a) Discuss any three methods of bridge strengthening with suitable sketch.[9]
 - b) Write short notes on Any Three from the following. $[3\times3=9]$
 - i) Diaphragm walls.
 - ii) Roller compacted concrete.
 - iii) Wet mix macadam.
 - iv) Reinforced earth construction.
 - v) Foundation strengthening.

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