Q.25 What do you mean by creep in pre-stress concrete? (CO1)
Q.26 Describe various elements of pre-stressing. (CO1)
Q.27 Discuss pretension method with their suitability? (CO1)
Q.28 Describe the concept of load Balancing. (CO2)
Q.29 Discuss pre-stressing steel wires, stands and high strength bars. (CO1)
Q.30 What is materials requirement for pre-stressing concrete-high strength concrete? (CO1)
Q.31 What are the factors influencing the shrinkage of concrete. (CO1)
Q.32 What the types of problem can be arises from free fall procedure of pile installation. (CO2)
Q.33 Write a short note on Non displacement piles. (CO2)
Q.34 Write the advantages of vibrating method of piledriving. (CO2)
Q.35 Explain circular pre-stresing & its applications. (CO1)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Give IS specification for material used in pre-stresses concrete. (CO1)
Q.37 Define piles and explains methods of pile driving. (CO2)
Q.38 What is anchorage slip? How do you compute the loss of stress due to slip (Co1)

Roll No. .....

5th Sem / Civil, Constr. Mgmt.
Subject:- Pre-stressed Concrete

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Minimum grade of concrete for post-tensioned work is (CO2)
a) M4O b) M3O
c) M2O d) M5O

Q.2 Piles having one or more bulbs for restraining lateral loads is called. (CO2)
a) Fender piles b) Tension Piles
c) Batter piles d) Under-reamed piles

Q.3 In pre-tensioning method, loss of pre-stress ismore about (CO1)
a) 18% b) 10%
c) 12% d) 15%

Q.4 The sudden changes in loss of pre-stress may be due to (CO1)
a) Humidity b) Frost
c) Temperature d) Steel

Q.5 The pre-stressing force _____ with the time. (CO1)
a) Increase b) Decrease
c) A and B d) None of the above

Q.6 Loss of pre-stress is maximum due to (CO2)

a) Creep of concrete b) Friction

c) Shrinkage of concrete d) Relaxation of steel

Q.7 Why a concrete is pre-stressed? (CO1)

a) To reduce the amount of concrete used in construction

b) To reduce the amount of materials used and transported

c) To improve durability and service life

d) All of the above

Q.8 Piles are commonly driven into the ground by means of a special device called (CO2)

a) Pile driver and Hammer

b) Driller

c) None of the mentioned

d) All of the above

Q.9 The bearing capacity of a single pile in clay is mainly due to (CO2)

a) Friction Shear b) Strength of soil

c) Allowable load d) Ultimate load

Q.10 In pre-stresses concrete high grade strength concrete is used for (CO1)

a) Having concrete of low ductility

b) Having low creep

c) Having concrete of low brittleness

d) Controlling the pre stress loss

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 In pre-stressed concrete member, the steel is under _____ (CO1)

Q.12 The defection of a beam with straight tendons is _____ (CO1)

Q.13 In axially pre-stressed members, the concrete is under_____ (CO1)

Q.14 Loss of stress due to friction depends upon_____ (CO1)

Q.15 More the diameter of tendon _____ is the ultimate strength. (CO2)

Q.16 The piles having one or more bulbs are called _____ (CO2)

Q.17 The bearing capacity of a single pile in clay in mainly due to _____ (CO2)

Q.18 The pre-stressing force _____ with the time. (CO1)

Q.19 Piles are suitable for_____. (CO2)

Q.20 Define precast element. (CO1)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 What are the various system of pre stressing explain any one. (CO1)

Q.22 Explain losses in pre-stress. (CO1)

Q.23 Write the problems faced during pile construction. (CO2)

Q.24 Explain advantages of disadvantages of pre-stressed concrete as compare to RCC. (CO1)