ADVANCE CONSTRUCTION TECHNIQUES & EQUIPMENTS

(6TH SEMECTER, CIVIL ENGG.)

Lecture's Name: BISWAJIT BEHERA

(Selective Questions)

2 MARKS QUESTIONS

1. What do you mean by Prefabrication?
2. Define Retrofitting?
3. Define Cladding?
4. What is an Escalator?
5. Define Workability of concrete?
6. What is Planning construction Equipment?
7. What do you mean by curing of concrete?
8. What do you mean by Fibers?
9. What do you mean by PVC & RPVC?
10. What do you mean by reinforcing?
11. Define light intensity?
12. What do you mean by earthquake?
13. What is Earthling & Fuse?
14. What is drag line?
15. Where & why Vibrating compactors are used?
16. What do you mean by nominal mix concrete?
17. What do you mean by Building configuration?
18. What is planning & construction equipment?
19. What is shear wall?
20. What is Curvature durability?
21. What do you mean by natural period of a structure?
22. What is creep in concrete?
23. What do you mean by acceleration?
24. What do you mean by Gable band?
25. What do you mean by lique faction?

5 MARKS QUESTIONS

1. Write down the material used in Pre fabrication System?
2. Explain the various kind of Earth moving equipment?
3. Explain the factors influencing the choice of mix proportion?
4. What is construction in planning &selection of construction equipments?
5. Write the Sources of weakness in R.C frame building?
6. What are the points to be considered for selection of wiring?
7. Advantages & disadvantages of fabrication?
8. What are the factors affecting workability of concrete?
9. State the general principles for central plants layout for hot water supply?10.Classified technique used in retrofitting of buildings?
11. What are the durability requirements of concrete as per I.S.456?12.Write the advantages & disadvantages of Concrete?
13. Short notes of Acoustic material, Geo-Synthetics?

10 MARKS QUESTIONS

1. Describe the properties & uses of artificial timber?
2. Describe the various types of cladding used in construction?
3. Describe the various types of plastic used as construction material?
4. Classified retrofitting techniques & describe their uses?
5. Explain the procedure of concrete mix design?
6. Describe the Assumption made in the earthquake resistant design of structure?
7. Describe structural irregularities in building?
8. What are the systems & problems on ventilation? Describe with Sketches?
9. Briefly describe, the classification of bulldozers & its uses?
10. Distinguish between lift, escalators & elevation indicating their types & uses?

10 MARKS QUESTIONS

Q.1 Describe conditions under which pile foundations are adopted. Also explain in brief factors affecting selection of type of piles.

Q.2 Explain in brief various cased cast in situ concrete piles with neat sketches

Q.3 Explain pre cast concrete piles with merits and demerits.

Q.4 Explain in detail under reamed piles with neat sketches.

Q.5 Describe (1) Group of piles, (2) Spacing of piles with necessary sketches.

Q.6 Explain in detail various pile driving formulas.

Q.7 Define Coffer Dam. Describe uses of coffer dams. Explain selection of type of coffer dams.

Q.8 Explain in brief with neat sketches: (1) Earth fill coffer dams, (2) Rock-fillcoffer dams

Q.9 Explain in brief with neat sketches: (1) Single wall coffer dams, (2) Double wall coffer dams

Q.10 Explain cellular coffer dams with sketches.

Q.11 Describe: (1) Design features of coffer dams, (2) prevention of leakage incoffer dams.

Q.12 Explain in detail economic height of coffer dams.

Q.13 Explain in detail open caissons.

Q.14 Explain: (1) Box caissons, (2) Monoliths

Q.15 Explain in detail pneumatic caissons.

Q.16 Explain in detail floating of caissons with necessary sketches.

Q.17 Explain in detail sinking of caissons with necessary sketches.

Q.18 Explain in detail caisson diseases with precautions.

Q.19 Explain in detail pumping from well points with neat sketches.

Q.20 Explain in detail reduction of ground water flow by grouting.

Q.21 Write notes on: (1) freezing process, (2) Vibro floatation with sketches.

Q.22 Write notes on: (1) Requirements of a good formworks, (2) Economy in formwork.

Q.23 Describe with neat sketch (1) formwork for columns, (2) formwork for floors

Q.24 Explain in detail various types of centering.

Q.25 Write notes on: (1) structure of earth, (2) Plate tectonics with sketches.

Q.26 Discuss various properties to be considered for better seismic performance.Also describe zoning of earthquake as per standards.

Q.27 Explain in detail construction methods for improvement of masonry walls.

Q.28 Explain in brief repair and restoration. Describe in detail (1) repairs of majorcracks and crushed concrete, (2) Installing Ferro-cement plate at corners

Q.29 Explain concept of retrofitting. Describe in detail strengthening (retrofication) of Reinforced Concrete members.

Q.30 Write short note on tall structures. Describe various structural concepts fortall and special structures.

Q.31 Explain in detail methods of pre-stressing.

Q.32 Describe various points to be considered during the procedure of safe demolition of structures.

Q.33 Classify the demolition methods. Explain in detail any three methods of demolition.

Q.34 Describe evaluation of main demolition methods.

Q.35 Give detailed classification of construction equipments. Also write short note on selection of equipments.

Q.36 Write short note on: (1) Bulldozers and angle dozers, (2) Grader, (3) scrapper

Q.37 Write detailed note on Hauling equipments.

Q.38 Describe in detail gantry cranes and tower cranes.

Q.39 Describe in detail conveying equipments.

Q.40 Explain in detail various pile driving equipment.

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