

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2021-22 Examination

Semester:8**Subject Code: 203104453****Subject Name: Advanced Construction Technology****Date: 01/04/2022****Time: 10.30 am to 1.00 pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions -**(15)**

1. The trucks with automatic unloading device are called_____
(A) Dumpers (B) Conveyer (C) Trailers (D) Dump trucks
2. ____type of equipment is developed for both intermittent as well as continuous flow type
(A) Advanced (B) Combined (C) Mixed (D) Flow
3. which of the following is a temporary structure____
(A) Sand island (B) Cofferdam (C) Jetty (D) Caisson
4. ____are the most commonly used Equipments for transportation
(A) Bulldozer (B) Rollers (C) Trucks (D) Dump trucks
5. A_____ caisson is open at top and closed at bottom.
(A) Pneumatic caissons (B) Box caisson (C) Cylinder (D) none of the above
6. Box caisson is used up to depth _____m.
7. Which temperature caisson sickness can be avoided_____
- 8.The pneumatic caissons are adopted only if the head of water is more than _____ m
9. _____is an oldest type of machine which remove Earth.
- 10.Sometimes a caissons sinks more on one side than other it is called _____
- 11._____ method is used when soils of finer particle size.
12. ____is self-propelled machine which is used mainly to exert powerful tractive force for pulling other machine.
13. _____can be used on wet soil and in all condition of weather.
14. _____ Equipments are used to decrease the porosity of earth and increase the density of earth
15. which cofferdam is suitable at a place where velocity of flow is slow and depth of water is 1.5 m

Q.2 Answer the following questions. (Attempt any three)**(15)**

- A) Give Difference between Caisson and Cofferdam.
- B) Explain Basic parts of Belt conveyor system.
- C) Give site selection Criteria for constructing diaphragm Wall
- D)Give Importance of Construction Equipments.

Q.3 A) Explain Electro osmosis for dewatering with neat figure.**(07)**

- B) Enlist the types of Caissons and Explain Box caisson with figure.

(08)**OR**

- B) Enlist the types of cofferdams and Explain Cellular Cofferdam with neat sketch.

(08)**Q.4 A) Explain Drawbar pull and Rim pull****(07)****OR**

- A) Explain Blade adjustments.
- B) Factors affecting while selection of construction Equipments.

(07)**(08)**