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Question Paper Code : 57181

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

Fifth Semester

Civil Engineering

CE 6506 – CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE
(Regulations 2013)

Maximum : 100 Marks

Time : Three Hours

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. What is the use of accelerators in concrete ?
2. Mention any four Destructive methods of testing concrete.
3. What is the purpose of providing Damp proof courses ?
4. Define Slip form.
5. What is meant by coffer dam ?
6. What is meant by pipe jacking ?
7. Write a note on offshore platform.
8. Define articulated structures.
9. Name the equipments used for earth moving operations.
10. What is meant by dredging ?

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PART – B (5 × 16 = 80 Marks)

11. (a) What are the factors to be considered for mix design ? Explain the step by step procedure for IS method.

OR

- (b) Explain any two tests for testing of fresh concrete.

12. (a) Describe the different types of bonds in brick masonry with sketches.

OR

- (b) What is scaffolding ? Mention its various components and types.

13. (a) Describe the procedure involved in underwater construction of diaphragm walls and basement.

OR

- (b) What is dewatering ? And briefly explain the various dewatering techniques.

14. (a) Explain the general requirements in launching girders.

OR

- (b) Explain about the support structures required for heavy equipments and conveyors.

15. (a) Explain the various equipments for pile driving.

OR

- (b) Mention the various types of earthwork equipment. Mention their uses.

Reg. No. :

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Question Paper Code : 71580

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

Fifth Semester

Civil Engineering

CE 6506 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What does 33 grade cement refer to?
2. List any two durability properties of hardened concrete.
3. Why are construction joints provided?
4. What are slip forms?
5. What is meant by micro piling?
6. Define shoring.
7. Draw a sketch of formwork for shells.
8. What are the advantages of articulated towers?
9. How do you calculate the output of scraper?
10. List any two reasons for dredging.

PART B — (5 × 16 = 80 marks)

11. (a) What is the objective of curing? Explain the different methods of curing of concrete.

Or

- (b) What is meant by Non-Destructive testing of concrete? What are its relative merits? Explain any one Non-Destructive testing method in detail.

12. (a) Compare brick masonry and stone masonry.

Or

- (b) Explain in detail about
(i) Fire protection
(ii) Acoustic protection.

13. (a) Explain in detail about the under water construction methods.

Or

- (b) Define tunneling. Explain in detail about the different tunneling methods.

14. (a) Explain the construction techniques for bridge decks.

Or

- (b) With a flow diagram explain the erection of articulated towers.

15. (a) How do you select equipment for earth work? Explain the types of earthwork equipments.

Or

- (b) With sketch explain a typical batching plant.
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Question Paper Code : 40807

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B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Fifth Semester

Civil Engineering

CE 6506 – CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. State any two physical properties of cement.
2. List the methods for curing of concrete.
3. Write any three materials used for joints.
4. What is water proofing in construction ?
5. Why are caissons used ?
6. What is shoring in construction ?
7. What are the methods of prestressing ?
8. What is a conveyor belt ?
9. List out the equipments used for earth work.
10. Define dredging.

PART – B

(5×13=65 Marks)

11. a) i) Discuss any two types of admixtures. (3)
ii) List out types of cement. (5)
iii) What are the tests to be conducted for concrete ? (5)

(OR)

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- b) i) Explain the process of manufacturing process of concrete. (7)
 ii) Discuss the RMC concrete and its advantages. (3)
 iii) Describe the Non-Destructive Tests of Concrete. (3)
12. a) i) What are masonry structures ? Discuss the bonded wall ? (3)
 ii) What is the function of the roof ? (3)
 iii) Describe any two types of scaffolding with diagrams. (7)
- (OR)
- b) i) Write short notes on :
 1) Damp proof course and (3)
 2) Building foundations. (3)
 ii) What is the difference between scaffolding, shuttering and framework as per Civil Engineering ? (7)
13. a) i) Describe the term jacking. (6)
 ii) Explain the types of hammers using in pile driving. (7)
- (OR)
- b) i) Explain types of sheet pile and list its functions. (10)
 ii) What is well pointing and how does dewatering work ? (3)
14. a) i) Write short notes on Bow-string Bridge and cable-stayed bridges. (6)
 ii) What are the uses of offshore platform ? (4)
 iii) Write short notes on dome. (3)
- (OR)
- b) i) Write short notes on launching girders and bridge decks. (3)
 ii) Explain in detail about the pre stressed concrete used in the structure. (10)
15. a) i) Explain in detail about the earth moving equipments. (10)
 ii) List out the equipments used for concreting work. (3)
- (OR)

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- b) i) Enumerate the material handling equipment. (4)
 ii) Discuss the advantages of elevating scraper. (4)
 iii) Distinguish between crawler and pneumatic type of wheels excavators. (5)

PART – C

(1×15=15 Marks)

16. a) i) What do you mean by dredging ? List out the types of equipment used for dredging. (5)
 ii) Explain in details about trenching and the equipment used for trenching. (10)
- (OR)
- b) i) Discuss the tunnel. (3)
 ii) Describe the fire protection. (6)
 iii) Write short notes on slip form construction. (6)

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Reg. No. :

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Question Paper Code : 52774

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Fifth Semester

Civil Engineering

CE 6506 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

(Common to PTCE 6506 — Construction Techniques, Equipment and practice for
B.E. Part-Time — Fourth Semester — Civil Engineering — Regulation 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What does 33 grade cement refer to?
2. List any two durability properties of hardened concrete.
3. Define damp proof course. What are its causes of dampness?
4. What is the purpose of providing construction joints?
5. List out the various methods tunnelling in soft soil.
6. Write any two functions of sheet piles.
7. Mention the reasons for using special forms for shells.
8. What are the precautions to be taken while erecting light weight components on tall structures?
9. Name the equipments used for earth moving operations.
10. What is meant by dredging?

PART B — ($5 \times 13 = 65$ marks)

11. (a) Briefly discuss about the manufacturing process of concrete.

Or

- (b) Discuss in detail about the testing on fresh concrete with neat sketch.

12. (a) Describe the different types of bonds in brick masonry with sketches.

Or

- (b) What is scaffolding? Mention its various components and types.

13. (a) Explain the various types of sheet piles.

Or

- (b) Explain in detail about tunneling techniques.

14. (a) Explain the construction techniques for bridge decks.

Or

- (b) With a flow diagram explain the erection of articulated towers.

15. (a) Write in detail about the various factors to be considered in the selection of equipment for earthwork.

Or

- (b) What is meant by tunnelling? Explain the features of the equipment used for tunnelling operation.

PART C — ($1 \times 15 = 15$ marks)

16. (a) What is coffer dam? With the help of sketches explain various types of coffer dam.

Or

- (b) In which situation pile foundation is adopted? Explain various types of pile foundation with neat sketch.

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B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017
Fifth Semester
Civil Engineering
CE 6506 – CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE
(Regulations 2013)

Maximum : 100 Marks

(10×2=20 Marks)

1. List out the various Non-destructive testing methods.
2. In which baries grade of cement is classified and write the grades of cement ?
3. Define Scaffolding.
4. Draw a neat sketch for cornice and coping.
5. List out the various methods tunnelling in soft soil.
6. Write any two functions of sheet piles.
7. What do you mean by bridge write their types ?
8. Write the various operations involved in the construction of off shore platforms.
9. What are the factors to be considered for selecting the equipment ?
10. List out the various types of vibrators used in compaction process.

(5×13=65 Marks)

11. a) Briefly discuss about the manufacturing process of concrete.

(OR)

- b) Discuss in detail about the testing on fresh concrete with neat sketch.

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12. a) Write the sequence of construction activates in detail.

(OR)

b) Define masonry and explain about the various types of stone masonry with neat sketch.

13. a) Explain in details about the various methods of dewatering process with neat sketch.

(OR)

b) Define piles and explain about various types of pile driving technique.

14. a) Discuss in detail about the various types of Bridge decks with suitable diagram.

(OR)

b) Explain about various types of domes with neat sketch.

15. a) Discuss in details about various types of earth work equipment.

(OR)

b) Briefly explain about types of Dredger mention below with neat sketch.

1) Dipper Dredger (4)

2) Bucket Dredger (4)

3) Wheel Dredger (5)

PART – C

(1×15=15 Marks)

16. a) What is coffer dam ? With the help of sketches explain various types of coffer dam.

(OR)

b) In which situation pile foundation is adopted ? Explain various types of pile foundation with neat sketch.

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Question Paper Code : 20275

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Fifth Semester

Civil Engineering

CE 6506 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

(Common to PTCE 6506 – Construction Techniques, Equipment and Practice for
B.E. Part-Time – Fourth Semester – Civil Engineering – Regulations 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the classification of admixture according to the function.
2. What is the right time for curing concrete and duration curing?
3. What are the advantages of hollow block masonry?
4. What are control joints in flooring?
5. What is shoring and state its components?
6. State the various methods of dewatering a basement excavation.
7. What are launching girders?
8. What are false work in construction of heavy structures?
9. State the advantages of using hydraulic machines in construction.
10. State the classification of concrete mixers.

PART B — ($5 \times 13 = 65$ marks)

11. (a) Describe the process of making ready mix concrete, transportation and placing them in 5th floor level for roof slab.

Or

- (b) Explain Ultrasonic Pulse Velocity Test.

12. (a) Explain the construction of two level underground parking using top down construction method.

Or

- (b) Explain slip form construction for construction of a cooling tower.

13. (a) Explain the construction of well foundation for a bridge to be constructed across river.

Or

- (b) Explain construction of sheet pile wall.

14. (a) Explain the process of transporting and installation of fixed offshore jacket platform.

Or

- (b) Explain the modern construction technique for cast in situ, box girder, multi span concrete bridge.

15. (a) Explain the basic configuration of hydraulic excavator and factors to be considered in selection best excavator.

Or

- (b) Explain the basic configuration and dredging process using cutter suction dredger.

PART C — ($1 \times 15 = 15$ marks)

16. (a) Explain the construction sequence of constructing diaphragm wall.

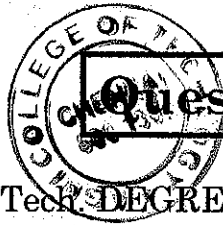
Or

- (b) Explain the construction of under ground train tunnel using tunnel boring machine.



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Question Paper Code : 91309

B.E./B.Tech DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019

Fifth Semester

Civil Engineering

**CE 6506 – CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE
(Regulations 2013)**

(PTCE 6506 – Construction Techniques, Equipment and Practice for

B.E. Part-Time – Fourth Semester – Civil Engineering – Regulations 2014)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. What is the use of accelerators in concrete ?
2. Mention any four Destructive methods of testing concrete.
3. State the purposes of providing DPC in buildings.
4. What are Slipforms ?
5. What is an under-reamed pile ?
6. What is a shoring ?
7. Distinguish between silos and bunkers.
8. Write the various operations involved in the construction of off shore platforms.
9. How do you calculate the output of scraper ?
10. List any two reasons for dredging.

PART – B

(5×13=65 Marks)

11. a) What are the factors to be considered for mix design ? Explain the step by step procedure for IS method of concrete mix design.

(OR)

- b) What is meant by NDT ? Explain any two NDT methods in detail.



12. a) Describe the different types of bonds in brick masonry with sketches.

(OR)

b) Explain the different types of joints in buildings with sketches.

13. a) Describe the procedure involved in underwater construction of diaphragm walls and basement.

(OR)

b) What is dewatering ? And briefly explain the various dewatering techniques.

14. a) Discuss in detail about the various types of Bridge decks with suitable diagram.

(OR)

b) Explain in detail the process of in-situ pre-stressing of high rise structures.

15. a) How do you select equipment for earth work ? Explain the types of earthwork equipments.

(OR)

b) Mention the various types of compaction equipment. Mention their uses.

PART - C

(1×15=15 Marks).

16. a) What is Scaffolding ? Mention its various components and types.

(OR)

b) Explain in detail about the Caissons and Cofferdam.