

Total No. of printed pages = 6

RETEST EXAMINATION – 2022

Semester : 5th

Subject Code : CT-501

CONSTRUCTION TECHNOLOGY

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Instructions :

- (i) *All* questions of PART-A are compulsory.
- (ii) Answer any *five* questions from PART-B.

PART – A

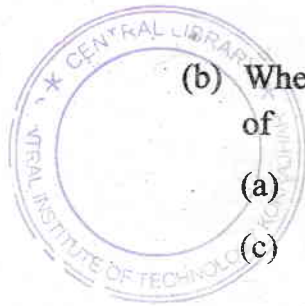
Marks – 25

1. Answer the following questions as directed :

1×15=15

- (a) The value of Broad gauge is _____ mm.
(Fill in the blank)

[Turn over



(b) Wheels of the train are coned with a value of

- (a) 1 in 20 (b) 1 in 25
(c) 1 in 30 (d) 1 in 40

(Choose the correct option)

(c) IRC stands for _____. (Fill in the blank)

(d) Cement concrete dams are considered as rigid dams. (Choose the correct option)

- (i) True (ii) False

(e) Gravity dams resist water force through their self-weight. (Choose the correct option)

- (i) True (ii) False

(f) Earthen dams are non-rigid dams. (Choose the correct option)

- (i) True (ii) False

(g) Uplift pressure is minor in arch dam because of their thin section. (Choose the correct option)

- (i) True (ii) False

(h) Earthen dams are suitable as overflow dams.
(Choose the correct option)

(i) True (ii) False

(i) Concrete dams can be designed as overflow dams. (Choose the correct option)

(i) True (ii) False

(j) Ballast in railway track absorb shocks and vibrations due to moving train. (Choose the correct option)

(i) True (ii) False

(k) Camber is cross-slope provided to road surface to drain off rain water. (Choose the correct option)

(i) True (ii) False

(l) The minimum sight distance to be available at every section of road is

(i) SSD (ii) OSD

(iii) ISD (iv) HSD

(Choose the correct option)



(m) Wooden sleepers are the ideal sleepers for railway track. (Choose the correct option)

- (i) True (ii) False

(n) Concrete sleepers have high scrap value. (Choose the correct option)

- (i) True (ii) False

(o) Wooden sleepers have minimum service life. (Choose the correct option)

- (i) True (ii) False

2. Define the following terms in brief: $1 \times 10 = 10$

(a) Sight distance

(b) Storage dam

(c) Diversion dam

(d) Detention dam

(e) Overflow dam

(f) Homogeneous soil dam

(g) Zoned typed soil dam

(h) Permanent canal

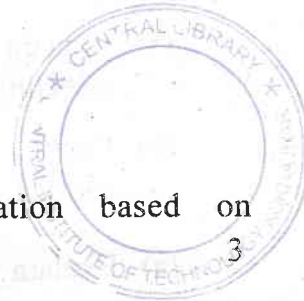
(i) Productive canal

(j) Ridge canal.



PART - B

Marks - 45



3. (a) Explain canal classification based on discharge. 3
- (b) Explain the factors to be considered while fixing canal alignment. 3
- (c) What are the necessity of canal lining? 3
4. (a) What should be the characteristics of canal lining material? 3
- (b) What are the advantages and disadvantages of wooden sleeper? 3
- (c) Explain any two types of ballast materials. 3
5. (a) Draw the cross-section of a railway track. 4
- (b) Explain the classification of dam according to use. 5
6. (a) What are the advantages of gravity dam? 4
- (b) Explain the physical factors governing selection of a particular type of dam. 5

7. (a) Explain the factors to be considered while selecting site for a dam. 5
- (b) Explain the various causes of failure for earthen dams. 4
8. (a) Explain arch dam. 5
- (b) Explain the uses of reservoir. 4

