

Total No. of printed pages = 4

19/5th Sem/DCE501

2021

**CONSTRUCTION TECHNOLOGY**

Full Marks – 100

Time – Three hours

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

Answer any *five* questions.

1. (a) Explain the construction procedure of WBM road. 6
- (b) What is canal lining ? What are the necessities of canal lining ? 2+4=6
- (c) What are the factors to be considered while selecting site for a bridge ? 4
- (d) What are rigid pavement and flexible pavement ? 4
2. (a) What are the factors to be considered while fixing canal alignment ? 4
- (b) What are the advantages and disadvantages of concrete sleeper ? 4

[Turn over

- (c) What are the classification of dam according to their use ? 6
- (d) What are the factors to be considered while selecting site for a bridge ? 6
3. (a) What factors are considered while selecting site for a reservoir ? 6
- (b) With respect to the zones of storage for reservoir define the following : 4×2=8
- (i) Minimum pool level
- (ii) Normal pool level
- (iii) Useful storage
- (iv) Dead storage.
- (c) What is gravity dam ? What are its advantages and disadvantages ? 6
4. (a) What are the advantages and disadvantages of arch dams ? 6
- (b) Explain the physical factors governing the selection of particular type of dam. 6
- (c) What are the factors to be considered while selecting site for a dam ? 8

5. (a) What are earthen dams ? Explain the different methods of constructing earthen dams.

2+6=8

- (b) Explain : 6

(i) Homogeneous dam

(ii) Zoned dam and

(iii) Diaphragm dam.

- (c) Explain the different causes of failure of earthen dam. 6

6. (a) What are the classification of roads as per Nagpur Road Plan ? 5

- (b) Explain briefly the factors on which the geometric design of highways depend. 5

- (c) Define the following : 5

(i) Camber

(ii) Carriageway

(iii) Medians

(iv) Kerbs

(v) Right of way.



(d) Explain the following : 5

(i) Coning of wheels

(ii) Types of ballast

(iii) Stopping sight distance

(iv) Overtaking sight distance

(v) Abutments.

