

Roll No. 2282300078

Total No. of Questions : 5]

[Total No. of Printed Pages : 4

EW-85-A

B.Tech. IInd Semester (CSE, IT. & Elect.)

Examination, 2022

Engineering Mechanics & Basic Civil Engineering

Paper - BE-204

Time : 3 Hours]

[Maximum Marks : 60

Note :- Attempt all questions.

1. (a) What are various properties of cement. Explain it with salient point.
- (b) Define :-
 - (i) Plasteing and pointing

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(1)

P.T.O.

(ii) Elements of building construction

OR

- (a) State and prove Lami's theorem ?
 - (b) State and prove varignon's theorem ?
2. (a) Draw SFD and BMD for a simply supported beam of span 6m subjected to a UDL of 5KN/m over its entire length.

OR

- (b) Find out Mass moment of inertia of a right circular cone of base radius R and mass M about the axis of the cone.
3. (a) List out various instruments used in surveying.
- (b) Define coplanar and concurrent forces. Also define free body diagram.

OR

The following readings were taken by a 4m staff.

0.875, 1.225, 1.285, 1.425, 1.165, 0.785, 0.925, 1.225, 2.825, 0.895, 1.255, 1.685 and 0.915. The instrument was shifted after 5th and 9th reading. Enter the data in level book and calculate R.L. of all the points if first reading was taken

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(2)

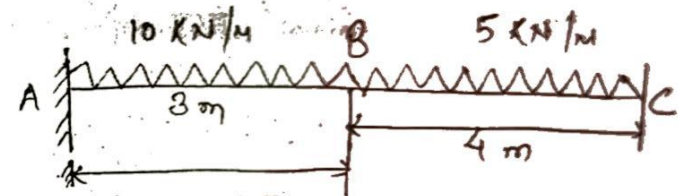
on B.M. 100.00 apply check.

4. (a) Write short notes on the following (any two):-

- (i) Roft or Mat foundation
- (ii) Marble flooring
- (iii) Purpose of dams
- (iv) Linoleum flooring

OR

- (b) Draw shear force and bending moment diagram for a cantilever beam loaded as shown in figure.



5. (a) What do you understand by reversible and irreversible machines. Also give various examples of simple machines.
- (b) Give various properties of bricks. Also give a list of various tests of Bricks.

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(3)

P.T.O.

OR

- (a) What do you understand by contour and contour Internal ?
Also give properties of contour lines.
- (b) Write short note on :-
- (i) Trusses
 - (ii) Bow's Notation
 - (iii) Planimeter
 - (iv) Workability of concrete

AJEET SONI

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(4)

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