Category

172 responses

Copy

- UR
- EWS
- BC
- EBC
- SC
- ST

Pie chart values: EBC 35.5%, SC 13.4%, UR 9.3%, EWS 7%, BC 33.1%

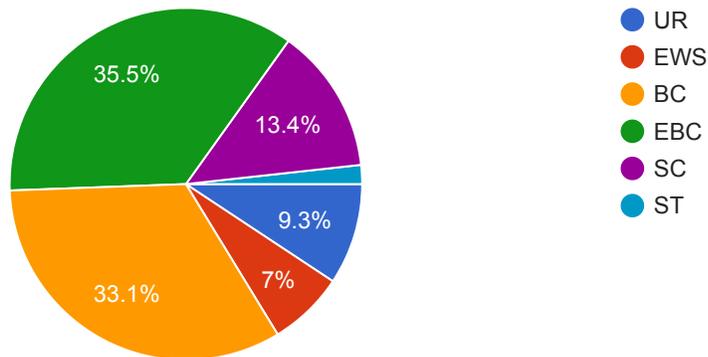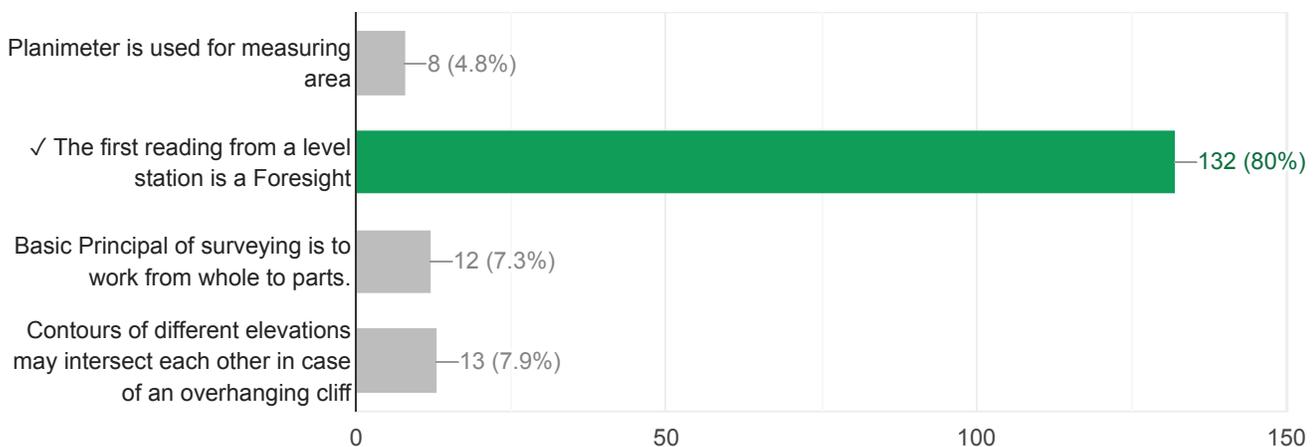
Online Test for Guest Lecturer (Civil Engineering)

Which of the following is not a correct statement?

Copy

132 / 165 correct responses
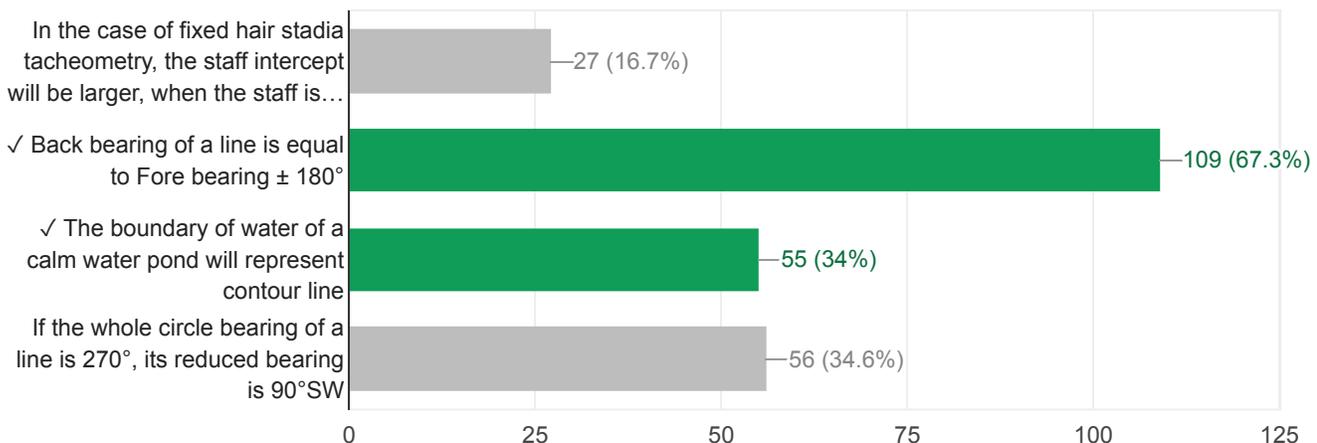
Answer	Count
Planimeter is used for measuring area	8 (4.8%)
✓ The first reading from a level station is a Foresight	132 (80%)
Basic Principal of surveying is to work from whole to parts.	12 (7.3%)
Contours of different elevations may intersect each other in case of an overhanging cliff	13 (7.9%)

Which of the following is/are correct statement(s) ?

Copy

15 / 162 correct responses

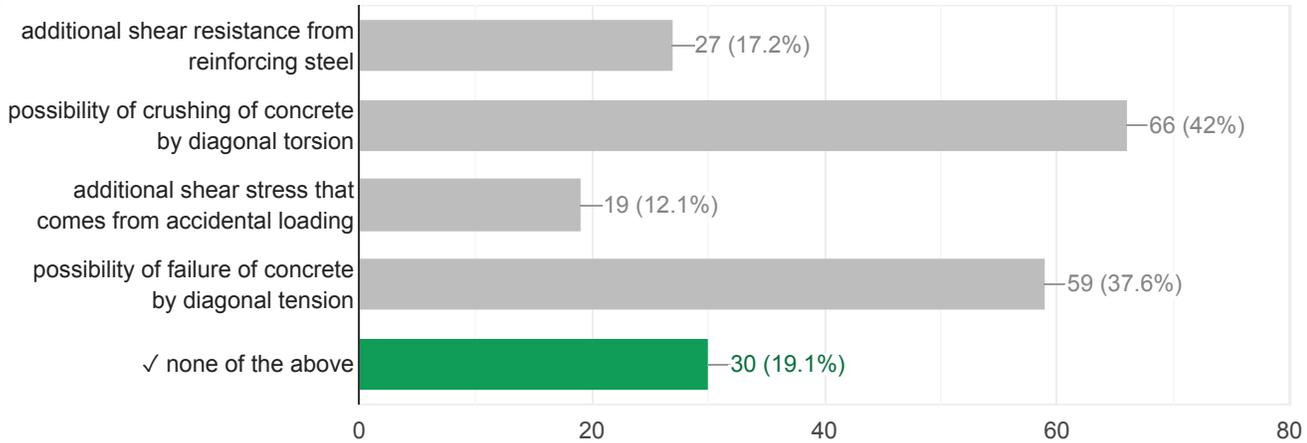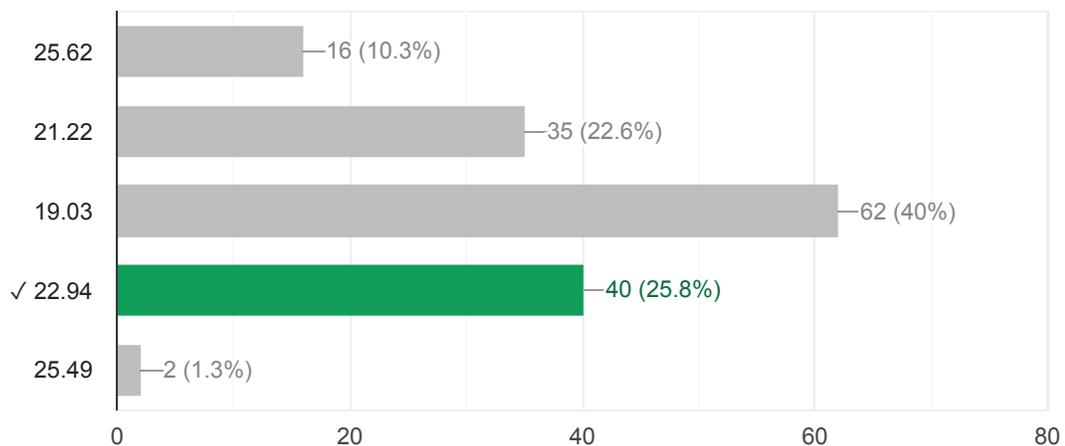| Answer	Count
In the case of fixed hair stadia tacheometry, the staff intercept will be larger, when the staff is…	27 (16.7%)
✓ Back bearing of a line is equal to Fore bearing ± 180°	109 (67.3%)
✓ The boundary of water of a calm water pond will represent contour line	55 (34%)
If the whole circle bearing of a line is 270°, its reduced bearing is 90°SW	56 (34.6%)

In shear design of an RC Beam, other than the allowable shear strength of concrete, there is also an additional check suggested in IS 456-2000 with respect to the maximum permissible shear stress. The check for max permissible shear stress is/are required to take care of

Copy

28 / 157 correct responses

additional shear resistance from reinforcing steel	27 (17.2%)
possibility of crushing of concrete by diagonal torsion	66 (42%)
additional shear stress that comes from accidental loading	19 (12.1%)
possibility of failure of concrete by diagonal tension	59 (37.6%)
✓ none of the above	30 (19.1%)

A partially saturated soil mass has bulk unit weight of 25 KN/cu.m and moisture content of 18.5 %. The specific gravity of soil solids is 2.65. On full saturation of soil sample, the unit weight of the soil sample will be_____ KN/cu.m.

Copy
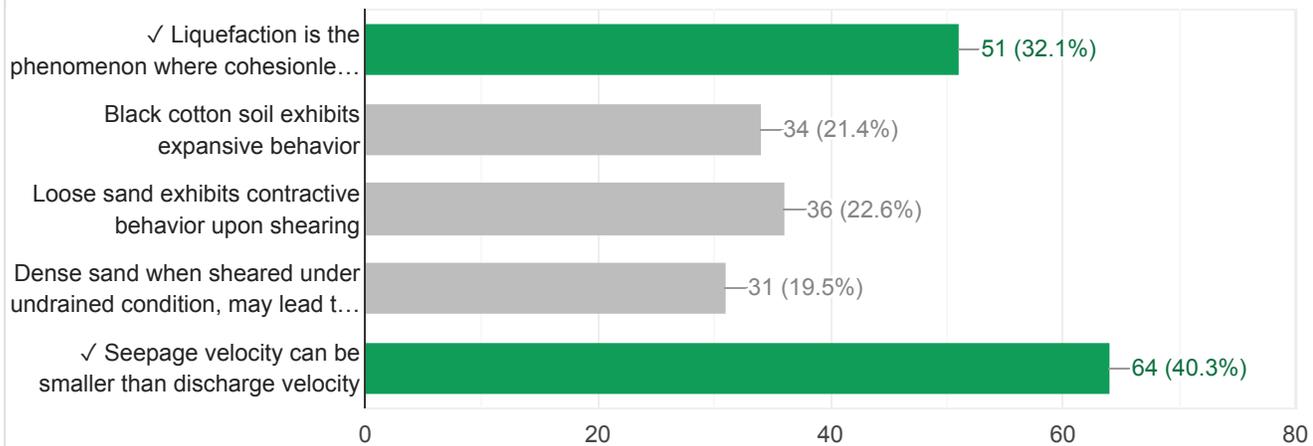
40 / 155 correct responses

25.62	16 (10.3%)
21.22	35 (22.6%)
19.03	62 (40%)
✓ 22.94	40 (25.8%)
25.49	2 (1.3%)

Which of the following statement/s is/are not correct ?

11 / 159 correct responses

Response	Count
✓ Liquefaction is the phenomenon where cohesionle…	51 (32.1%)
Black cotton soil exhibits expansive behavior	34 (21.4%)
Loose sand exhibits contractive behavior upon shearing	36 (22.6%)
Dense sand when sheared under undrained condition, may lead t…	31 (19.5%)
✓ Seepage velocity can be smaller than discharge velocity	64 (40.3%)

Which of the following is/are correct reason(s) for providing nominal cover in RCC design ?

38 / 170 correct responses
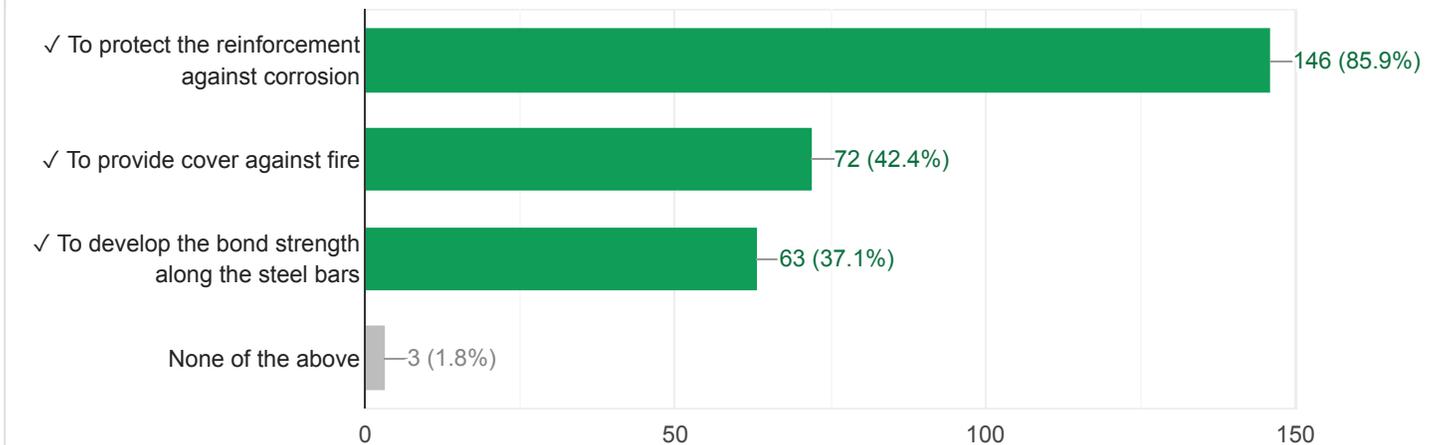
| Response	Count
✓ To protect the reinforcement against corrosion	146 (85.9%)
✓ To provide cover against fire	72 (42.4%)
✓ To develop the bond strength along the steel bars	63 (37.1%)
None of the above	3 (1.8%)

Copy

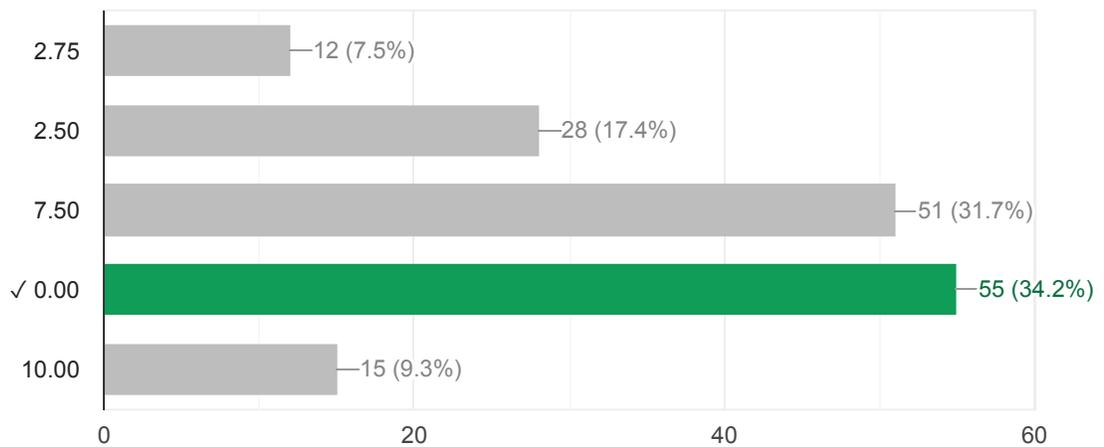A rectangular open channel of width 4.8 m is carrying a discharge of 120 cu.m/sec. The critical depth of channel is

96 / 163 correct responses

Option	Responses
3.69 m	13 (8%)
3.19 m	27 (16.6%)
✓ 3.99 m	96 (58.9%)
7.09 m	17 (10.4%)
4.21 m	10 (6.1%)
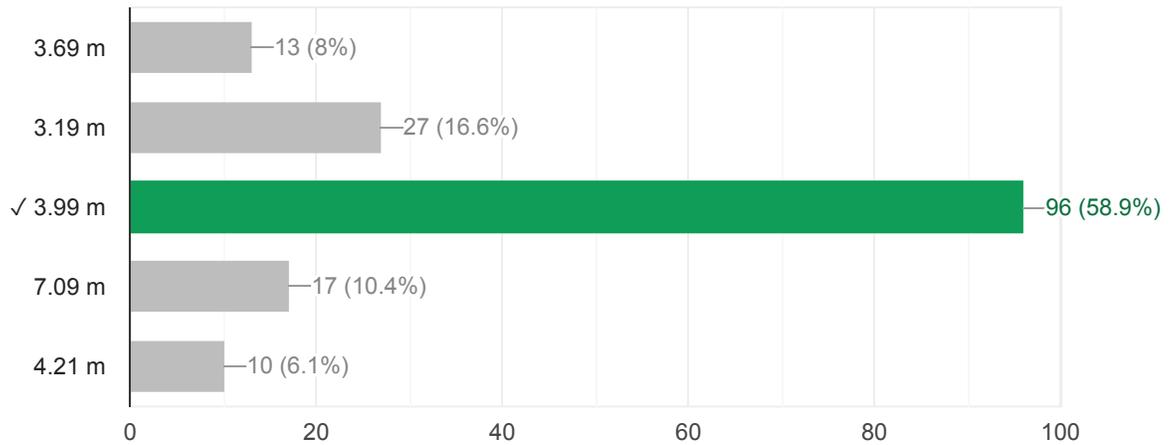
For the beam loaded as shown below (see figure); the reaction at support Q will be_____kN

55 / 161 correct responses

| Option	Responses
2.75	12 (7.5%)
2.50	28 (17.4%)
7.50	51 (31.7%)
✓ 0.00	55 (34.2%)
10.00	15 (9.3%)

A tension member consisting of 8 mm thick plate is connected a gusset plate of 8 mm thickness by a fillet weld of 6 mm size. The effective length of weld is 125 mm. The permissible stresses in plates and weld are 150 MPa and 110 MPa respectively. The safe load carrying capacity of member in kN will be
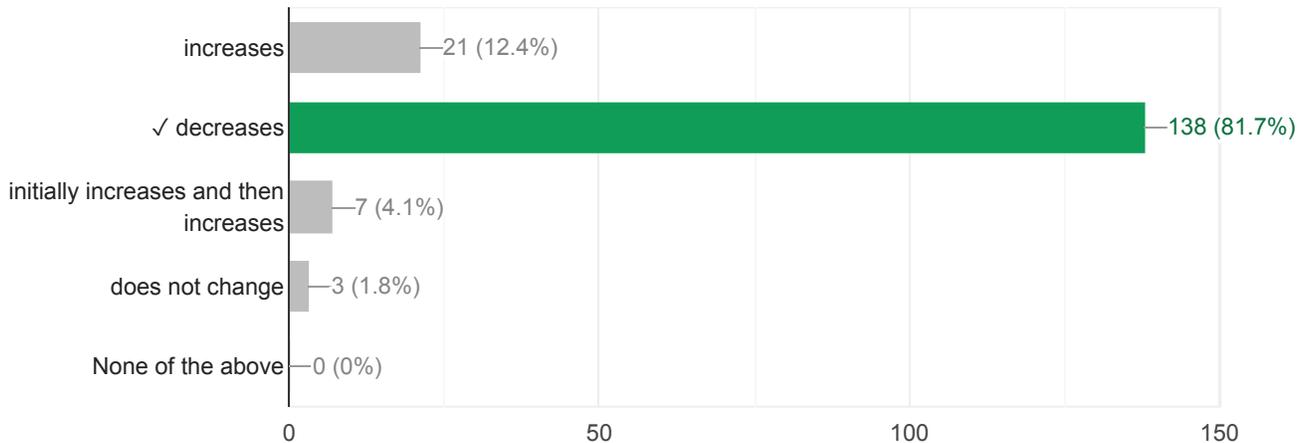
59 / 153 correct responses

Answer	Count
60.0	56 (36.6%)
115.5	27 (17.6%)
✓ 57.75	59 (38.6%)
56.70	8 (5.2%)
None of the above	3 (2%)
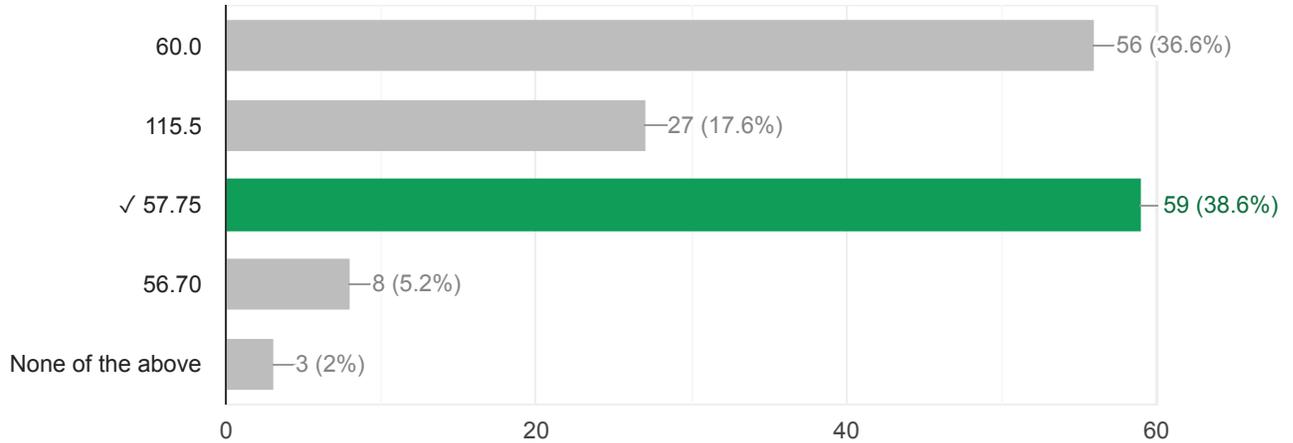
Due to increase in Di-calcium Silicate content in OPC, the heat of hydration

138 / 169 correct responses

Answer	Count
increases	21 (12.4%)
✓ decreases	138 (81.7%)
initially increases and then increases	7 (4.1%)
does not change	3 (1.8%)
None of the above	0 (0%)

Which of the following is/are not primary air pollutants?

44 / 172 correct responses

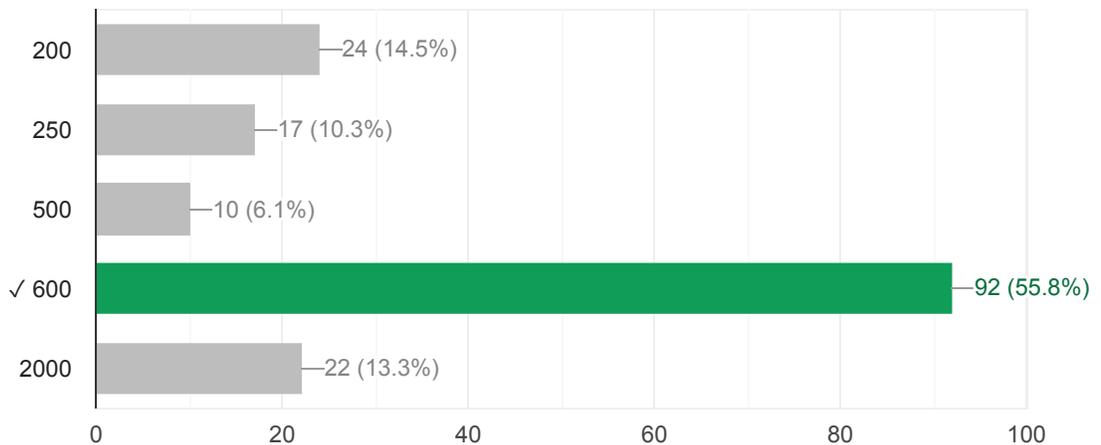| Option	Count
Hydrocarbons	22 (12.8%)
Nitrogen oxide	16 (9.3%)
✓ Ozone	124 (72.1%)
✓ Peroxyacetyl nitrate	69 (40.1%)
Volatile organic compounds	16 (9.3%)
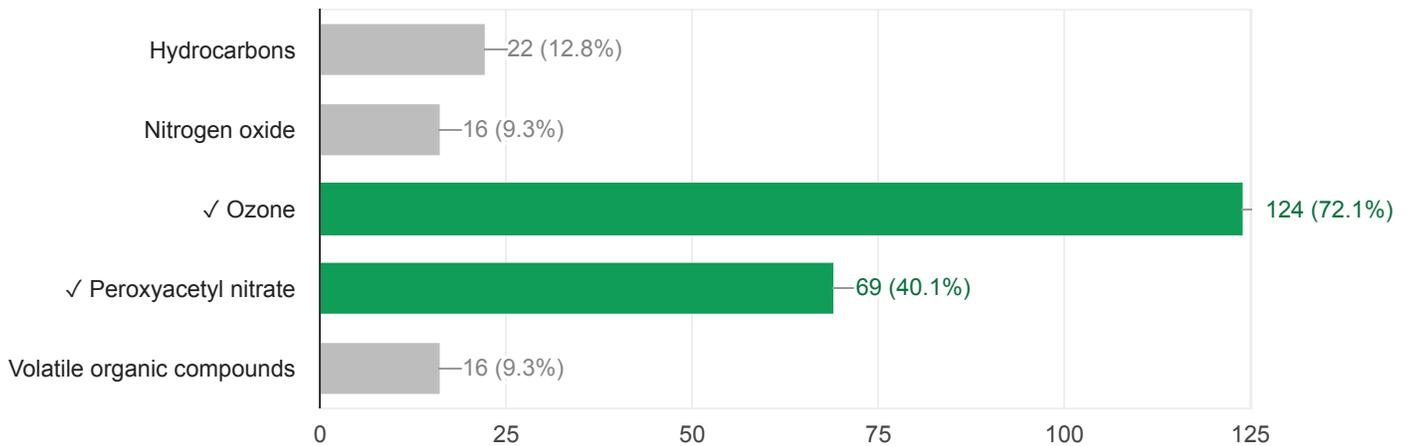
As per IS 10500:2012; The maximum permissible limit of total hardness (as calcium chloride equivalent in mg/L) in absence of alternate source is
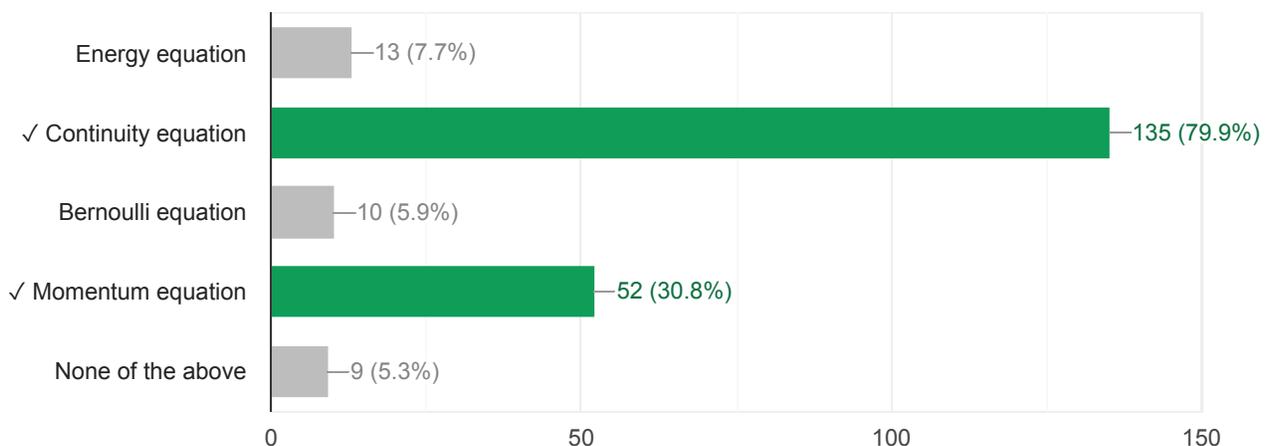
92 / 165 correct responses

Option	Count
200	24 (14.5%)
250	17 (10.3%)
500	10 (6.1%)
✓ 600	92 (55.8%)
2000	22 (13.3%)

The equation(s) used for the purpose of Hydraulic flood routing is/are

39 / 169 correct responses

| Option	Count
Energy equation	13 (7.7%)
✓ Continuity equation	135 (79.9%)
Bernoulli equation	10 (5.9%)
✓ Momentum equation	52 (30.8%)
None of the above	9 (5.3%)

If the optimistic time, pessimistic time and most likely time (in days) of an activity in the critical path are 8, 10 and 15 respectively, The value of expected time for the same activity will be
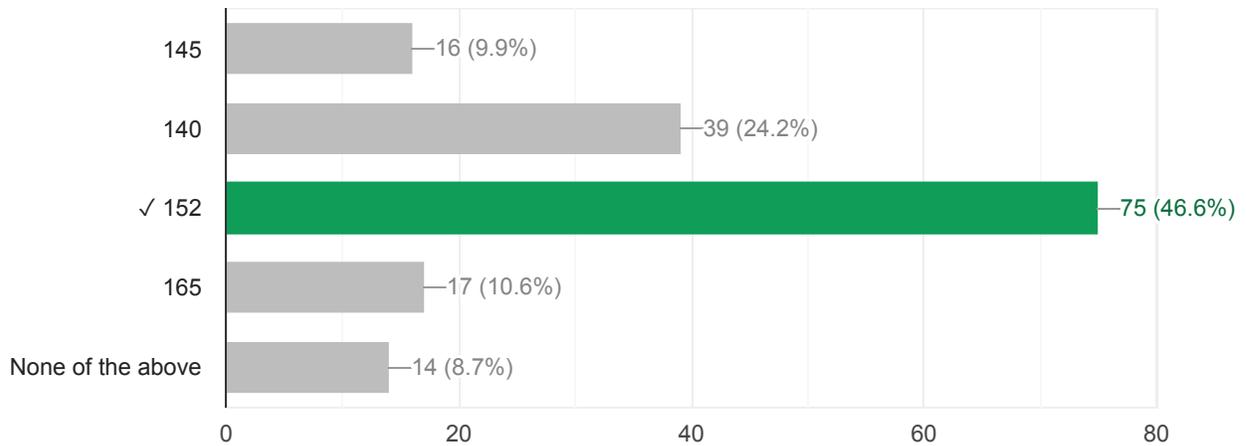
79 / 160 correct responses

10.33	9 (5.6%)
✓ 10.50	79 (49.4%)
37.33	20 (12.5%)
12.50	14 (8.8%)
None of the above	38 (23.8%)
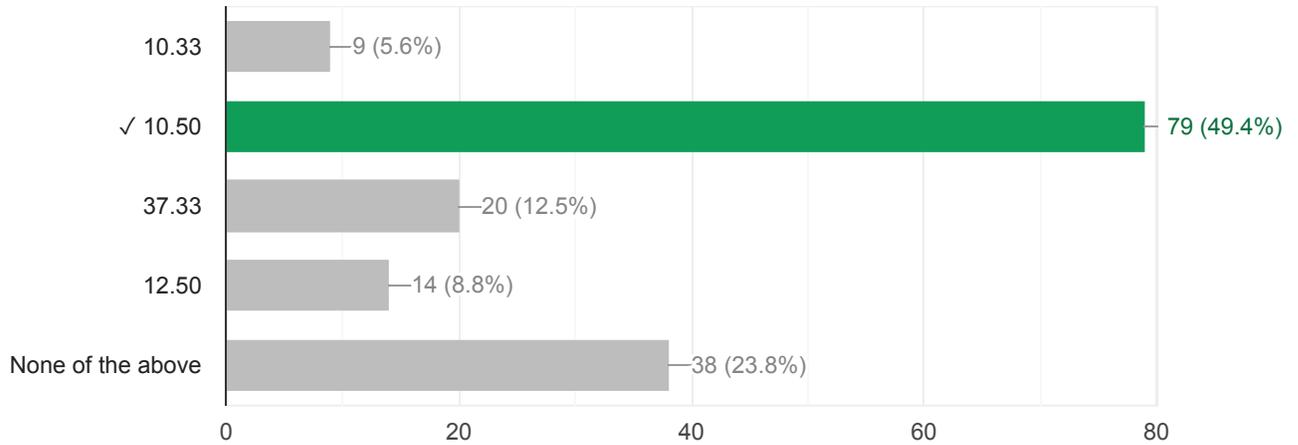
For a highway, the design speed is 95 km/h. The acceleration due to gravity and deceleration rate are 9.81 m/sec square and 3.5 m/sec square. The reaction time is 2 sec. The stopping sight distance for highway will be _____ m approximately.
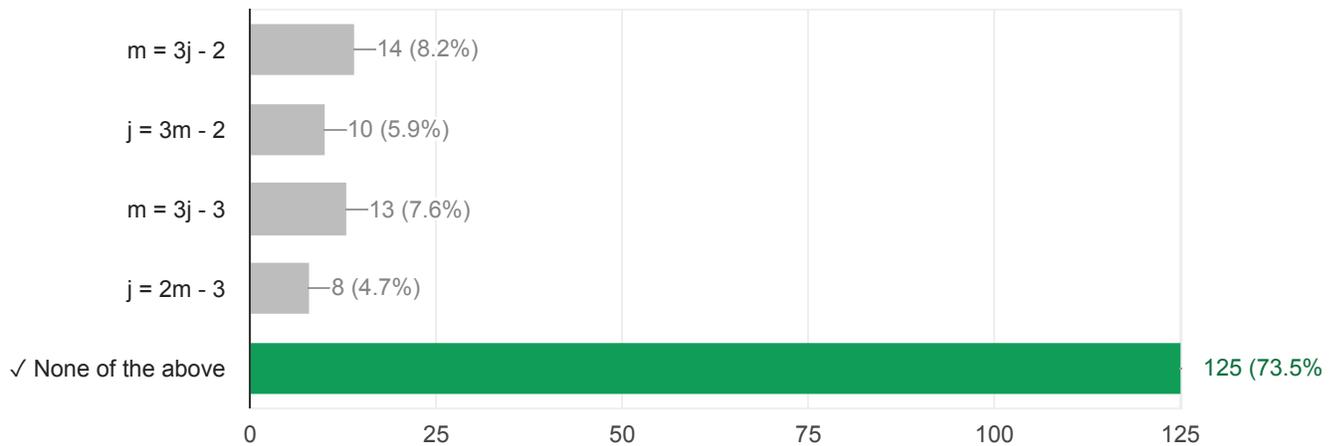
75 / 161 correct responses

145	16 (9.9%)
140	39 (24.2%)
✓ 152	75 (46.6%)
165	17 (10.6%)
None of the above	14 (8.7%)

A truss containing' j ' joints and 'm' members, It will be a simple truss if

Copy

125 / 170 correct responses

m = 3j - 2	14 (8.2%)
j = 3m - 2	10 (5.9%)
m = 3j - 3	13 (7.6%)
j = 2m - 3	8 (4.7%)
✓ None of the above	125 (73.5%

Which of the following is/are False statement(s)?

Copy

13 / 157 correct responses

Walls of half brick thick are measured in square meters	31 (19.7%)
✓ No deduction in the brickwork quantity is made for openings i…	49 (31.2%)
✓ Walls of one brick thick are measured in cubic meters	72 (45.9%)
For the measurement of excavation from the borrow pit i…	34 (21.7%)
Dimensions are measured to the nearest 1 cm	28 (17.8%)

Which of the following is/are incorrect statement(s) related to AutoCAD ?

Copy

42 / 148 correct responses

|	
Object snap increases speed, accuracy and ease of drafting	29 (19.6%)
Function key F7 is used to set grid on or off	32 (21.6%)
✓ If Snap is set off, the mouse cannot move to any intermediat…	66 (44.6%)
If Ortho is set on then all lines are drawn along the X and Y directi…	43 (29.1%)
Most obvious way to select the object is to place the cursor ov…	35 (23.6%)

The ratio of the energy correction factor to the momentum correction factor for a laminar flow in a pipe is

88 / 169 correct responses
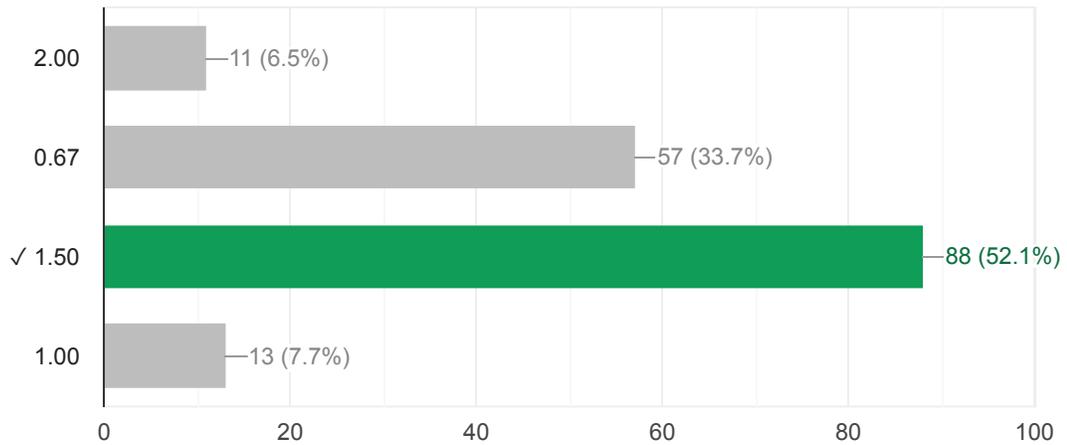
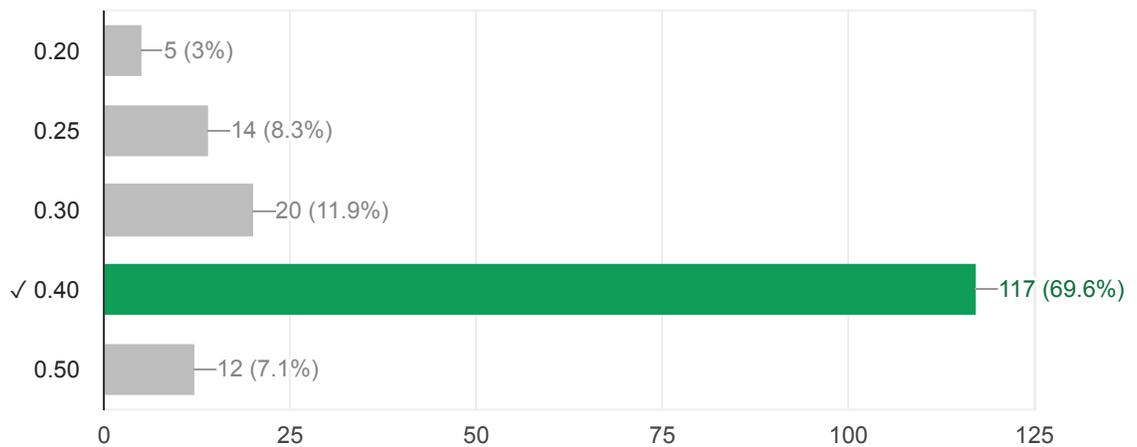| Option	Value
2.00	11 (6.5%)
0.67	57 (33.7%)
✓ 1.50	88 (52.1%)
1.00	13 (7.7%)

For a given material Young's modulus is 210 GPa and modulus of rigidity is 75 GPa. The value of Poisson's ratio is

117 / 168 correct responses

Option	Value
0.20	5 (3%)
0.25	14 (8.3%)
0.30	20 (11.9%)
✓ 0.40	117 (69.6%)
0.50	12 (7.1%)

Online Test for Guest Lecturer (Civil Engineering)

Common Test for Government Polytechnic, Katihar, Khagaria and Bhagalpur
Date of Test- 31-05-2022, Timing- 11:00 AM to 11:30 AM (Duration= 30 min), Full Marks: 20

IMPORTANT INSTRUCTIONS:-
1. Test consists of 20 questions carrying 1 mark each.
2. Test consists of Multiple Choice Questions (MCQ) as well as Multiple Select Questions (MSQ); a question may have one correct choice or multiple correct choices.
4. Attempt all questions. There is NO negative marking in any types of questions.
5. Candidates can SUBMIT only 1 Response.
6. Candidates are advised to SUBMIT test on or before 11:30 AM. After that test will be closed.

* Required

1. Email *

_____

2. Name of the college applied for *

Mark only one oval.

◯ Government Polytechnic, Katihar

◯ Government Polytechnic, Khagaria

◯ Government Polytechnic, Bhagalpur

3. Name of Candidate *

_____

4. Father's/Husband's Name *

_____

5. Date of Birth *

_____

Example: January 7, 2019

6. Gender *

Mark only one oval.

◯ Male

◯ Female

7. Category *

Mark only one oval.

◯ UR

◯ EWS

◯ BC

◯ EBC

◯ SC

◯ ST

Online Test for Guest Lecturer (Civil Engineering)

Common Test for Government Polytechnic, Katihar, Khagaria and Bhagalpur
Date of Test- 31-05-2022, Timing- 11:00 AM to 11:30 AM (Duration= 30 min), Full Marks: 20

IMPORTANT INSTRUCTIONS:-
1. Test consists of 20 questions carrying 1 mark each.
2. Test consists of Multiple Choice Questions (MCQ) as well as Multiple Select Questions (MSQ); a question may have one correct choice or multiple correct choices.
4. Attempt all questions. There is NO negative marking in any types of questions.
5. Candidates can SUBMIT only 1 Response.
6. Candidates are advised to SUBMIT test on or before 11:30 AM. After that test will be closed.

8. Which of the following is not a correct statement?   1 point

   Mark only one oval.

   ◯ Planimeter is used for measuring area

   ◯ The first reading from a level station is a Foresight

   ◯ Basic Principal of surveying is to work from whole to parts.

   ◯ Contours of different elevations may intersect each other in case of an overhanging cliff

9. Which of the following is/are correct statement(s) ?   1 point

   Check all that apply.

   ☐ In the case of fixed hair stadia tacheometry, the staff intercept will be larger, when the staff is held nearer to the observation point.

   ☐ Back bearing of a line is equal to Fore bearing ± 180°

   ☐ The boundary of water of a calm water pond will represent contour line

   ☐ If the whole circle bearing of a line is 270°, its reduced bearing is 90°SW

10. In shear design of an RC Beam, other than the allowable shear strength of   1 point
    concrete, there is also an additional check suggested in IS 456-2000 with
    respect to the maximum permissible shear stress. The check for max
    permissible shear stress is/are required to take care of

    Check all that apply.

    ☐ additional shear resistance from reinforcing steel

    ☐ possibility of crushing of concrete by diagonal torsion

    ☐ additional shear stress that comes from accidental loading

    ☐ possibility of failure of concrete by diagonal tension

    ☐ none of the above

11. A partially saturated soil mass has bulk unit weight of 25 KN/cu.m and   1 point
    moisture content of 18.5 %. The specific gravity of soil solids is 2.65. On
    full saturation of soil sample, the unit weight of the soil sample will
    be_____ KN/cu.m.

    Mark only one oval.

    ⬭ 25.62

    ⬭ 21.22

    ⬭ 19.03

    ⬭ 22.94

    ⬭ 25.49

12. Which of the following statement/s is/are not correct ?   1 point

    Check all that apply.

    ☐ Liquefaction is the phenomenon where cohesionless soil near the downstream side of
    dams or sheet-piles loses its shear strength due to high upward hydraulic gradient

    ☐ Black cotton soil exhibits expansive behavior

    ☐ Loose sand exhibits contractive behavior upon shearing

    ☐ Dense sand when sheared under undrained condition, may lead to generation of
    negative pore pressure

    ☐ Seepage velocity can be smaller than discharge velocity

13. Which of the following is/are correct reason(s) for providing nominal   1 point
    cover in RCC design ?

    Check all that apply.

    ☐ To protect the reinforcement against corrosion

    ☐ To provide cover against fire

    ☐ To develop the bond strength along the steel bars

    ☐ None of the above

14. A rectangular open channel of width 4.8 m is carrying a discharge of 120 cu.m/sec. The critical depth of channel is

Mark only one oval.

○ 3.69 m
○ 3.19 m
○ 3.99 m
○ 7.09 m
○ 4.21 m

15. For the beam loaded as shown below (see figure); the reaction at support Q will be_____kN
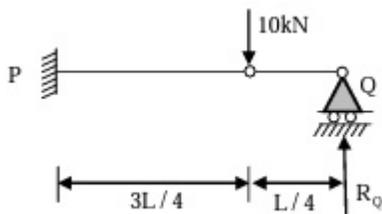
Mark only one oval.

○ 2.75
○ 2.50
○ 7.50
○ 0.00
○ 10.00

16. A tension member consisting of 8 mm thick plate is connected a gusset plate of 8 mm thickness by a fillet weld of 6 mm size. The effective length of weld is 125 mm. The permissible stresses in plates and weld are 150 MPa and 110 MPa respectively. The safe load carrying capacity of member in kN will be

1 point

Mark only one oval.

- ( ) 60.0
- ( ) 115.5
- ( ) 57.75
- ( ) 56.70
- ( ) None of the above

17. Due to increase in Di-calcium Silicate content in OPC, the heat of hydration

1 point

Mark only one oval.

- ( ) increases
- ( ) decreases
- ( ) initially increases and then increases
- ( ) does not change
- ( ) None of the above

18. Which of the following is/are not primary air pollutants?

1 point

Check all that apply.

- [ ] Hydrocarbons
- [ ] Nitrogen oxide
- [ ] Ozone
- [ ] Peroxyacetyl nitrate
- [ ] Volatile organic compounds

19. As per IS 10500:2012; The maximum permissible limit of total hardness (as 1 point
calcium chloride equivalent in mg/L) in absence of alternate source is

Mark only one oval.

○ 200

○ 250

○ 500

○ 600

○ 2000

20. The equation(s) used for the purpose of Hydraulic flood routing is/are 1 point

Check all that apply.

☐ Energy equation

☐ Continuity equation

☐ Bernoulli equation

☐ Momentum equation

☐ None of the above

21. If the optimistic time, pessimistic time and most likely time (in days) of an 1 point
activity in the critical path are 8, 10 and 15 respectively, The value of
expected time for the same activity will be

Mark only one oval.

○ 10.33

○ 10.50

○ 37.33

○ 12.50

○ None of the above

22. For a highway, the design speed is 95 km/h. The acceleration due to   1 point
    gravity and deceleration rate are 9.81 m/sec square and 3.5 m/sec square.
    The reaction time is 2 sec. The stopping sight distance for highway will be
    _____ m approximately.

Mark only one oval.

- ◯ 145
- ◯ 140
- ◯ 152
- ◯ 165
- ◯ None of the above

23. A truss containing' j ' joints and 'm' members, It will be a simple truss if   1 point

Mark only one oval.

- ◯ m = 3j - 2
- ◯ j = 3m - 2
- ◯ m = 3j - 3
- ◯ j = 2m - 3
- ◯ None of the above

24. Which of the following is/are False statement(s)?   1 point

Check all that apply.

- ☐ Walls of half brick thick are measured in square meters
- ☐ No deduction in the brickwork quantity is made for openings in walls up to 1 Sq.m area
- ☐ Walls of one brick thick are measured in cubic meters
- ☐ For the measurement of excavation from the borrow pit in a fairly uniform ground, dead men are left at suitable intervals
- ☐ Dimensions are measured to the nearest 1 cm

25. Which of the following is/are incorrect statement(s) related to AutoCAD ? 1 point

Check all that apply.

☐ Object snap increases speed, accuracy and ease of drafting

☐ Function key F7 is used to set grid on or off

☐ If Snap is set off, the mouse cannot move to any intermediate point between the dots of the grid

☐ If Ortho is set on then all lines are drawn along the X and Y direction only.

☐ Most obvious way to select the object is to place the cursor over the object, click the mouse button

26. The ratio of the energy correction factor to the momentum correction factor for a laminar flow in a pipe is 1 point

Mark only one oval.

◯ 2.00

◯ 0.67

◯ 1.50

◯ 1.00

27. For a given material Young's modulus is 210 GPa and modulus of rigidity is 75 GPa. The value of Poisson's ratio is 1 point

Mark only one oval.

◯ 0.20

◯ 0.25

◯ 0.30

◯ 0.40

◯ 0.50