# WIRK SIP ERNTENDENT 

 SOIL SURVEY AND SOIL RINSERVATIIN DEPT.

| SL. <br> NO. | SUBJECTS | MARKS | SL. <br> NO. | SUBJECTS | MARKS |
| :---: | :---: | :---: | :---: | :--- | :---: |
| $\mathbf{1}$ | BASIC ENGINEERING DRAWING | 10 | $\mathbf{5}$ | HYDRAULICS | 4 |
| $\mathbf{2}$ | SURVEYING | 15 | $\mathbf{6}$ | WATER RESOURCES ENGINEERING | 12 |
| $\mathbf{3}$ | BUILDING MATERIALS, BUILDING <br> CONSTRUCTION \& RCC | 20 | $\mathbf{7}$ | WORKSHOP CALCULATION | 6 |
| $\mathbf{4}$ | ESTIMATION \& BYE-LAWS | 20 | $\mathbf{9}$ | AUTOCAD | 6 |

1. Measurements from the scale to the drawing are transferred with the aid of:
A. Divider
B. Compass

CENTRE FOR CIVIL C. Protractor TITIVE EXAMS
D. Triangle
2. The magnetic bearing of the line is $63^{\circ} 30^{\prime}$ and the magnetic declination is $3^{\circ} 10^{\prime}$ east. The true bearing of the line will be
A. $66^{\circ} 40^{\prime}$
B. $34^{\circ} 30^{\prime}$

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. $60^{\circ} 20^{\prime}$
D. $51^{\circ}$

$$
\begin{aligned}
M B & =63^{\circ} 30^{\prime} \\
\text { \&. Declination } & =3^{\circ} 10^{\prime} E \\
T B & =M B \pm \delta \\
T B & =M B+\delta \quad(\text { since } \delta \rightarrow \text { East) } \\
& =63^{\circ} 30^{\prime}+3^{\circ} 10^{\prime} \\
& =66^{\circ} 40^{\prime}
\end{aligned}
$$

Ans $A$
3. The representative fraction $1 / 1500$ means that the scale is :
A. $1 \mathrm{~cm}=0.15 \mathrm{~m}$
B. $1 \mathrm{~cm}=1.5 \mathrm{~m}$

CENTRE FOR CC. $1 \mathrm{~cm}=15 \mathrm{~m}$ PETITIVE EXAMS
D. $1 \mathrm{~cm}=150 \mathrm{~m}$

$$
\begin{aligned}
& R \cdot F=\frac{1}{1500} \\
& \frac{1 \mathrm{~cm}}{1500 \mathrm{~cm}}=\frac{1 \mathrm{~cm}}{15 \mathrm{~m}}
\end{aligned}
$$

$$
\therefore A n s=C \rightarrow 1 \mathrm{~cm}=15 \mathrm{~m}
$$

4. The T-Square is used for drawing:
A. Vertical lines
B. Curve
C. Horizontal lines

CENTRE FOR D. Inclined lines
5. The instrument which is the combination of electronic theodolite and electronic distance meter is:
A. Digital theodolite
B. Tacheometer

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Telemeter
D. Total stations
6. The projection of a traverse line on a line perpendicular to the meridian is known as:
A. Latitude of the line
B. Departure of the line

CENTRE FOR C. Bearing of the line
D. Co-ordinate of the line
7. The method of levelling adopted to determine the difference of levels between two points when it is not possible to set up the level midway between them is :
A. Reciprocal levelling

CENTRE FOR B. Profile levelling TITIVE EXAMS
C. Precise levelling
D. Simple levelling
8. The back sight reading on a bench mark of reduced level 100.00 is 2.450 if foresight reading on the point 1.620 , the reduced level of the point is :
A. 103.070

CENTRE FOR CB. $\mathbf{9 7 . 5 5 0}$ COMPETITIVE EXAMS
C. 100.830
D. 102.450

WORK SUPERINTENDENT
SOIL SURVEY AND SOIL CONSERVATION DEPARTMENT

$$
\begin{aligned}
& 2.450 \mid 1.620 \\
& R L=100+2.450-1.620=100.83 \mathrm{~m}
\end{aligned}
$$

Ans: $C$
9. Cumulative errors that occur in chaining are proportional to :
A. L
B. 2 L

CENTRE FOR CIVIL C. $1 /$ L COMPETITIVE EXAMS
D. 1/2L
10. The error in measured length due to incorrect holding of the chain is :
A. Cumulative error
B. Compensating error

CENTRE FOR C. Instrumental error IVE EXAMS
D. Negative error
11. is a locus of a point moving in a plane in such a way that the ratio of its distances from a fixed point and fixed straight line
A. Ellipse

CENTRE FOR CIVIL B. Parabola TITIVE EXAMS
C. Conic
D. Curves
12. Lines drawn to represent visible edges and surface boundaries of objects are called:
A. Extension lines
B. Margin lines

CENTRE FOR C. Outlines COMPETITIVE EXAMS
D. Hatching lines
13.In projection one plane is parallel to the horizontal and the other is inclined at an angle of $45^{\circ}$ to the horizontal
A. Isometric projection

CENTRE FOR B. Orthographic projection
C. Oblique projection
D. Perspective projection
14. A series of closed contour line on the map represents $a_{\text {___ }}$ if the higher values are inside
A. Pond
B. Uniform slope

CENTRE FOR CIVIL ENGG. C. Hill
D. Flat ground
15. is the distance between base lines according to B-type lowercase letters
A. $14 / 10 \mathrm{~h}$
B. $2 / 14 \mathrm{~h}$

CENTRE FOR CIVIL C. $10 / 10 \mathrm{~h}$
D. $7 / 14 \mathrm{~h}$


16*. The plane of projection lies between the object and observer in:
A. Third angle projection
B. Fourth angle projection

CENTRE FOR CC. First angle projection EXAMS
D. Second angle projection

* As per Provisional Answer key Option A is given as correct answer

17. When the whole circle bearing of two lines $A B$ and $A C$ are $115^{\circ}$ and $41^{\circ}$ respectively, then the included angle BAC will be?
A. $41^{\circ}$
B. $74^{\circ}$

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. $115^{\circ}$
D. $156^{\circ}$


$$
\begin{aligned}
\angle B A C & =115^{\circ}-41^{\circ} \\
& =74^{\circ}
\end{aligned}
$$

$$
\therefore \text { Ans B }
$$

18. Remote sensing techniques are being usefully employed for the purpose of:
A. Improving natural resource management
B. Land use

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Protection of environment
D. All of these
19. In the system of dimensioning, the dimension is placed perpendicular to the dimension line in such a way that it may be read from the bottom edge or the right hand edge of the drawing sheet is called:

CENTRE
A. Unidirectional system
B. Progressive dimensional system
C. Aligned system
D. Continuous dimensioning system
20. The height of instrument is equal to :
A. RL of BM + Back sight
B. RL of BM + Fore sight
C. RL of BM + Intermediate sight

CENTRE D. Back sight + Fore sight

# 21. The two point and three point problems are typical case of : <br> A. Radiation method <br> B. Intersection method <br> C. Traversing method <br> D. Resection method 

22.All offsets which are not right angles to the main survey lines according to direction are known as:
A. Perpendicular offset
B. Long offset

CENTRE FOR CIVIL EINGG. COMPETITIVE EXAMS
C. Short offset
D. Oblique offset
23. In surveying telescope, cross hairs are fixed in :
A. Centre of telescope
B. Front of the eye piece
centre C. Optical centre of the eve piece
D. Front of the objective
24. The method of contouring suitable for long and narrow strips of land is :
A. Square method
B. Tacheometric method

CENTRE FOR C. Cross section method EXAMS
D. Direct method
25. The inclined letters slope to the horizontal at an angle of :
A. $15^{\circ}$
B. $45^{\circ}$

CENTRE FOR CC. $\mathbf{7 5}^{\circ} \mathrm{GG}$. COMPETITIVE EXAMS
D. $30^{\circ}$
26.
is the edge of roof running between the eaves and ridge.
A. Verge
B. Cleat

CENTRE FOR C. Template MPETITIVE EXAMS
D. Purlin
27. Light weight aggregate is obtained from:
A. Sedimentary rock
B. Metamorphic rock
C. Volcanic source

CENTRE FO D. Plutonic rock
28. Match the name of the stone in List -1 with the use of that stone in List - 2:

| List-1 | List - 2 |
| :--- | :--- |
| A. Marble | 1. Roofing |
| B. Granite | 2. Manufacture of cement |
| C. Slate | 3. Light House |
| D. Lime Stone | 4. Decorative work |
| A. A-4, B-3, C-1, D-2 | B. A-2, B-3, C-4, D-1 |
| C. $A-3, B-2, C-1, D-4$ | D. A-1, B-2, C-3, D-4 |

29. The volume of 1 bag cement weighing 50 kg is
A. $0.34 \mathrm{~m}^{3}$
B. $0.034 \mathrm{~m}^{3}$
C. $0.43 \mathrm{~m}^{3}$

CENTRE FO D. $0.043 \mathrm{~m}^{3}$
30. Under water concreting is done at a temperature of :
A. $2^{\circ} \mathrm{C}$
B. $3^{\circ} \mathrm{C}$

CENTRE FO C. $4^{\circ} \mathrm{C}$ ENGG. COMPETITIVE EXAMS
D. $5^{\circ} \mathrm{C}$

## 1711 CONCRETING UNDER WATER

When it is necessary to deposit concrete under water, the methods, equipment, materials and proportions of mix to be used shall be got approved from the Engineer before any work is started. Concrete shall contain 10 percent more cement than that required for the same mix placed in the dry to compensate the loss due to wash.

Concrete shall not be placed in water having a temperature below $5^{\circ} \mathrm{C}$. The temperature of the concrete, when deposited, shall not be less than $16^{\circ} \mathrm{C}$, nor more than $40^{\circ} \mathrm{C}$.
31. is the property of a material to absorb water vapour from air.
A. Hydroscopy
B. Permeability

CENTRE FO C. Hygroscopy OMPETITIVE EXAMS
D. Durability
32. Which type of scaffolding is most suitable if the construction work is to be carried out in the upper floor?
A. Single scaffolding
B. Independent scaffolding

CENTREFOR CIVILENGG. COMPETITIVE EXAMS
C. Suspended scaffolding
D. Needle scaffolding
33. A first class brick should have a minimum crushing strength of :
A. $0.7 \mathrm{~N} / \mathrm{mm}^{2}$
B. $10.2 \mathrm{~N} / \mathrm{mm}^{2}$

CENTRE FO C. $12.5 \mathrm{~N} / \mathrm{mm}^{2}$ MPETITIVE EXAMS
D. $14.0 \mathrm{~N} / \mathrm{mm}^{2}$
34. The process of spreading and working on mortar or slurry over the stones to fill up their joints is known as:
A. Grouting
B. Quarries

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Template
D. Moulding
35. What is the name of the special type of concrete in which gas or air bubbles are introduced into the plastic cement mortar mix to produce a material with structure?
A. Ready mixed concrete

CENTRE B. Cellular concrete PETITIVE EXAMS
C. No-fire concrete
D. Heavy weight concrete
36. What will be the remedy for the unequal settlement of subsoil?
A. Provide sufficient wide base
B. Provide drive piles up the hard strata
C. Foundation should rest on rigid strata
D. Construct retaining wall to prevent the escape of earth
37. A paste formed by the addition of water to a mixture composed of an aggregate such as sand and a matrix or binding material like lime or cement is called :
A. Mortar

CENTRE FO B. Cement mortar ETITIVE EXAMS
C. Lime mortar
D. Slurry
38. $\qquad$ are horizontal elements of a building structure which divide the building into different levels for the purpose of creating more accommodation.

B. Plinth course
C. Flooring
D. Floor
39. These are caused by the rupture of tissues in circular direction which forms ring shaped curved cracks in trees.
A. Ring shake
B. Cup shake

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Heart shake
D. Radial shake

* As per Provisional Answer key Option B is given as correct answer

40. Which of the following tests are used for testing tiles?
41. Impact test
42. Water absorption test
43. Dimension test
44. Bulk density test $L$ ENGG. COMPETITIVE EXAMS
A. 1,2 and 4 only
B. 1,2 and 3 only
C. 2 and 4 only
D. 1, 2,3 and 4
41.The horizontal wooden or steel members laid on the principal rafters on wall to wall to support common rafters of a roof are known as
A. Purlin

CENTRE FO. Cleat GG. COMPETITIVE EXAMS
C. Batten
D. Wall plate

Assistant Engineer

Live / Recorded Classes

42. The portion from which branch is removed receives nourishment from the stem for a pretty long time and ultimately results in the formation of dark rings is called :

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    A. Knot
    CENTRE B.Shake ENGG. COMPETITIVE EXAMS
    C. Pith
    D. Bark
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43. is defined as a structure which is sunk through ground or water to exclude the water and semi fluid material during the process of excavation of foundation and which subsequently becomes as integral part of the sub-structure.
A. Box caisson
B. Open caisson
C. Cofferdam
D. Caisson

## 44. Rank's formula is used to find :

A. Minimum width of foundation
B. Maximum depth of foundation
C. Minimum depth of foundation

CENT D. Maximum width of foundation
45. Choose the correct statements about single scaffolding
I. It is widely used in the construction of brick work.
II. Consist of single row of standards placed at a distance of about 2 m from the wall.
III. The rakers and cross braces may be provided to make the scaffolding more strong.
IV. The distance between the successive standards is about 1 m to 1.50 m .
A. I and II
B. II and III
C. III and IV
D. I and III
46. What is the distance for a village road building line?
A. 9.0 m
B. 9.5 m

CENTRE FOR CIVIC. 15.0 m MPETITIVE EXAMS
D. 30 m

Building line: Building line is also known as set back or front building line. It is a line parallel to the plot boundaries beyond which no construction work is permitted. The distance is taken from the centre line of the road and building line.

| Type of road | Building line |
| :--- | :--- |
| Village road IVIL ENGG | 9.0 m. |
| Other district road | 9.0 m. |
| Major district road | 15.0 m. |
| National \& state highway | 30.0 m. |

## Assistant Engineer

Live / Recorded Classes

# 47.For an industrial area how much will be the covered area with respect to the site area: 

A. $50 \%$ of the site area
B. $55 \%$ of the site area

CENTRE C. $60 \%$ of the site area TITIVE EXAMS
D. $65 \%$ of the site area
48. Which types of building comes in group H?
A. Hazardous
B. Industrial
C. Storage

CENTRE D. Business
49. What is the carpet area of a building?
A. Usable floor area excluding staircase, lift and wall
B. Floor area of veranda, passage, balconies etc.
C. Ground area covered by the building at the ground level
D. Built up covered area measured at floor level
50. What is the scale of key plan?
A. Not less than 1:400
B. Not less than 1:100
C. Not less than 1:10000

CENTRE D. 1:100 Not less than 1:500

Key plan: It is a plan to a scale of not less than one in $10,000(1: 10,000)$ It shell be submitted along with the application for a development/building permit It gives the boundary location of the site w.r.t. neighborhood.

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS


# 51. What is the permissible F.A.R Of mercantile building? 

A. 1.5
B. 2.0

CENTRE FOR CIVIL C. 1.2 COMPETITIVE EXAMS
D. 0.7
52. What is the normal rate of earth work for 30 m lead?
A. 1.5 m lift
B. 1.8 m lift

CENTRE FOR C. 1.6 m lift COMPETITIVE EXAMS
D. 2.0 m lift

## TEST SERIES

# 53. The unit of measurement in M.K.S for earth work of earth filling in plinth is : 

A. cu.cm<br>B. cu.inch<br>CENTRE FOR CIVIL C. cu.ft<br>D. cu.m

54. Which estimate is called as item rate estimate?
A. Plinth area estimate
B. Abstract estimate

CENTRE FOR C. Preliminary estimate
D. Detailed estimate
55. Which area is included in the plinth area?
A. Supported porches
B. Balconies
C. Cantilever projection

CENTRE FOR D. Courtyard

# 56. How much cubic meter is equal to one bag of cement? 

A. 0.4 cu.m
B. 0.034 cu.m

CENTRE FOR C. $\mathbf{0 . 3 4} \mathbf{c u} . \mathrm{m}$ MPETITIVE EXAMS
D. $0.00344 \mathrm{cu} . \mathrm{m}$
57. The percentage of horizontal circulation area of a building is :
A. 4\%-5\% of plinth area
B. 5\%-7\% of plinth area

CENTREFOR C. $7 \%-10 \%$ of plinth area
D. 10\%-15\% of plinth area

# 58. What is the unit of payment of ironwork in truss? 

A. Per quintal
B. Per Cu. M

CENTRE FOR C. Per kg COMPETITIVE EXAMS
D. Per cu. ft

| s. No. | Particulars of Items | Units of Measurement in MKS | Units of payment in MKS |
| :---: | :---: | :---: | :---: |
|  | Steel work |  |  |
| 1 | Rolled steel joists, Channels, Angles, T-irons, Flats, Squares, Rounds etc. | quintal | per q . |
| 2 | Steel reinforcement bars, etc. in R.C.c., R.B. work | quintal | perq. |
| 3 | Bending, binding of steel reinforcement | quintal | perq. |
| 4 | Fabrication and hoisting of steel work | quintal | perq. |
| 5 | Expended Metal (X.P.M.) size work | sq. m. | per sq. m. |
| 6 | Fabric reinforcement, wire netting | sq. m. | persq. m. |
| 7 | Iron work in struss | quintal | perq. |
| 8 | Gusset plate (Manimum rectangular size from which cut) | quintal | per q . |
| 9 | Cutting of Iron Joists, Channels | cm. | per cm. |
| 10 | Cutting, Angles, Tees, Plate | sq. m. | per sq. m. |
| 11 | Threading in iron | cm. | per cm. |
| 12 | Welding, Solder of sheets, plates (Welding of rails, steel, trusses, rods - per no.) | cm. | per cm. |
| 13 | Boring holes in iron | no. | perno. |
| 14 | Cast Iron (C.I.) pipe, Dia. specified | metre | perm. |
| 15 | Rivets, Bolts and nuts, Anchor bolts, Lewis bolts, Holding down bolts, etc. | quintal | per q . |
| 16 | Barbed wire fencing | metere | perm. |
| 17 | Iron gate (May also be by weight, quintal) | sq. m. | persq. m. |
| 18 | Iron hold fast (May also be by no.) | quintal | per q . |
| 19 | Iron railing (Height and types specified) | meter | perm. |
| 20 | Iron grill, collapsible gate (may also be by weight, quintal) | sq. $m$. | sq. $m$. |
| 21 | Rolling shutter | sq. m. | sq. m. |
| 22 | Steel doors and windows (Type and fixing specified) | sq. m. | sq. m. |
|  | Roofing |  |  |
| 1 | Tiled roof - Allahabad tile, Faizabad tile, Mangalore tile, etc. including battens | sq. m. | per sq. m. |
| 2 | Country tile roof including bamboo jaffria. | sq. $m$. | per sq. m. |
| 3 | Corrugated iron (G.C.I.) roof, Asbestos cement (A.C.) sheet roof | sq. m. | per sq. m. |
| 4 | Slate roofing, timber roofing | sq. $m$. | per sq. m. |
| 5 | Thatch roofing including bamboo jaffri (Thickness specified) | sq. $m$. | per sq. m. |
| 6 | Eave Board (Thickness specified | sq. m. | per sq. m. |
| 7 | R.C.C., R.B. slab roof (excluding steel) | cu. m. | per cu. m. |
| 8 | Lime concrete roof over and inclusive of tiles or brick, or stone slab, etc. (Thickness specified) | sq. m. | per sq. m. |
| 9 | Mud roof oer and inclusive of tiles, or bricks or stone slab, etc. (Thickness and type specified) | sq. $m$. | persq. m. |
| 10 | Ridges, valleys, gutters (Grith specified) | metre | per m. |

59. Which is job overheads?
A. Handling of materials
B. Travelling expenses
C. Rent and taxes

CENTREFOR CD. Telephone MPETITIVE EXAMS

## A General overheads

i Establishment (Office, Staff)
ii Stationary, Printing, Postages, etc.
iii Travelling expenses.
iv Telephone
v Rent and taxes.
B Job overheads
i Supervision (Salary of Engineers, Oversers,

ii Handling of materials.
iii Repairs, carriage and depreciation of $T$ and $P$.
i Amenities of labour.
v Workmen's compensation, insurance, etc.
vi Interest on investment
vii Losses on advances.
60. How much volume of dry materials is required to prepare $1 \mathrm{cu} . \mathrm{m}$ of wet concrete?
A. $1.32 \mathrm{cu} . \mathrm{m}$ to $1.34 \mathrm{cu} . \mathrm{m}$
B.1.34 cu.m to 1.36 cu.m

CENTRE FOR CIVIL 42 cu.m to 1.52 cu.m
D. $1.52 \mathrm{cu} . \mathrm{m}$ to $1.54 \mathrm{cu} . \mathrm{m}$
61. The life of brick work in cement mortar is:
A. 25 years
B. 80 years
C. 60 years

CENTRE FOR CD. 100 years MPETITIVE EXAMS

| S.No. | Details of items and works | Life of the works |
| :---: | :--- | :---: |
| 1 | Masonry <br> Brickwork in lime or cement, boulder masonry in lime or cement, <br> cut stone work in lime or cement | Brick work in clay, coursed rubble in mud <br> Brick arches in lime or cement mortar, rubble stone arches in <br> lime or cement mortar |
| 4 | Sundries brickwork in clay <br> Flooring | 100 years and above |
| 5 | Brick-on-edge or flat flooring over 7.5 cm L.C. <br> 6 <br> 7 | Cement concrete floor, granolithic floor, stone flooring <br> Terraced floor or lime concrete |

62. What is the net scrap value at the end of utility period of building?

A. $10 \%$<br>B. $5 \%$<br>CENTRE FOR CIVIL C. $\mathbf{8 \%}$ COMPETITIVE EXAMS<br>D. $3 \%$

# 63. The value at the end of utility period without being dismantled is termed as 

A. Salvage value
B. Market value

CENTRE FOR C. Book value
D. Scrap value
64. Which is not included under outgoings?
A. Sinking fund
B. Loss of rent
C. Depreciation

CENTREFOR CD. Taxes G. COMPETITIVE EXAMS
65. The value of property or structure become less by its becoming out of date in style, in structure, design etc. are termed as
A. Obsolescence
B. Depreciation

CENTREFOR CIVIL ENGG. COMPETITIVE EXAMS
C. Years purchase
D. Annuity
66. A part of water, which exists in the porous space of the soil by molecular attraction is known as
A. Capillary water
B. Hygroscopic water

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Gravitational water
D. None of the above
67. Duty of canal water is expressed in
A. Cumec
B. Centimeter
C. Ha per cumec

CENTREFOR D. None of these
68. The first watering which is given to a crop. when it is grown up to a few centemeter is:
A. Paleo
B. Kor-watering

CENTRE FOR C. Base period PETITIVE EXAMS
D. Crop period
69. Which of the following irrigation is suitable for sugarcane and tobacco?
A. Free flooding
B. Check flooding

CENTRE FOR CC. Furrow irrigation ITIVE EXAMS
D. Border flooding
70. The ratio of mean supply discharge to the full capacity discharge is :
A. Time factor
B. Capacity factor
centre for C. Base Factor
PETITIVE EXAMS
D. Crop ratio
71. The water stored in the reservoir, below the minimum pool level is :
A. Dead storage
B. Useful storage

CENTRE FOR C. Valley storage
D. Surcharge storage
72. Yield of a reservoir represents .
A. The inflow into the reservoir
B. The capacity of the reservoir
C. The out flow demand on the reservoir

CE D. The optimum value of catchment yield
73. Which dam is constructed to store water during floods and release it gradually at a safe rate, when the flood recedes?
A. Storage dam
B. Diversion dam

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Rigid dam
D. Detension dam

# 74. A barrier with low crust provided with a series of gates across the river is a : 

A. Barriage
B. Weir

CENTRE FOR C. Dam G. COMPETITIVE EXAMS
D. All of these
75. The axis of head regulator usually makes an angle with the axis of the weir is :
A. $30^{\circ}$ to $60^{\circ}$
B. $60^{\circ}$ to $90^{\circ}$

CENTRE FOR CC. $90^{\circ}$ to $120^{\circ}$ MPETITIVE EXAMS
D. $120^{\circ}$ to $180^{\circ}$

## 76. The shape of lined canal as per ISI is :

A. Semi-circular
B. Parabolic
C. Rectangular

CENTRE FOR CD. Trapezoidal MPETITIVE EXAMS
77. The difference in level between the top of a bank and supply level in a canal is
A. Berm
B. Free board

CENTRE FOR C. Height of bank TITIVE EXAMS
D. None of these

## 78. The unit of viscosity is :

A. $N / m^{3}$
B. $\mathrm{Ns} / \mathrm{m}^{2}$
C. $N / m^{2}$

CENTREFOR CD. $\mathbf{N s} / \mathrm{m}^{\mathbf{3}}$
79. The reciprocal of compressibility is known as:
A. Young's modulus
B. Expansion index

CENTRE FOR C. Bulk modulus ETITIVE EXAMS
D. Compression index
80. Which element of hydroelectric power plant prevents the penstock from water hammer phenomena?
A. Valves and gates
B. Draft tubes

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. Spillway
D. Surge tank
81. The units which are derived from basic units are called:
A. Fundamental units
B. Basic units

CENTRE FOR CC. Derived units ETITIVE EXAMS
D. System units
82. The three sides of a triangle are not equal, such a triangle is called:
A. Right angled triangle
B. Isosceles triangle

CENTRE FOR C. Equilateral triangle
D. Scalene triangle
83. Calculate the area of a right triangle whose base and height are $10 \mathrm{~cm}, 3.5 \mathrm{~cm}$ respectively:
A. 17.5 cm
B. 18.5 cm

CENTRE FOR CIVIL ENGG. COMPETITIVE EXAMS
C. 19.5 cm
D. 35 cm
84. Circumference of a circle of radius $r$ is
A. $\pi r$
B. $2 \pi r$
C. $\pi r^{2}$

CENTREFOR CD. $\pi r^{3}$
85. Find the side of a cube, if its surface area is $216 \mathrm{~m}^{2}$ :
A. 6 cm
B. 12 cm

CENTRE FOR C. 18 cm . COMPETITIVE EXAMS
D. 8 cm

## 86. 1 km is equal to :

A. 0.84 miles
B. 0.50 miles
C. 1.60 miles

CENTRE FOR C. $\mathbf{D} .0 .62$ miles
87. The ratio between the change in length of the material to its original length is called:
A. Lateral strain
B. Volumetric strain

CENTRE FOR CC. Linear strain PETITIVE EXAMS
D. Poisson's ratio
88. The ratio of output to the input of machine is called:
A. Mechanical advantage
B. Velocity ratio

CENTRE C. Power Engg. COMPETITIVE EXAMS
D. Efficiency
89. The rate of change of displacement of body is called:
A. Velocity
B. Acceleration

CENTRE FOR C. Speed COMPETITIVE EXAMS
D. Retardation

## 90. The capacity to the work is:

A. Power
B. Workdone
C. Energy

CENTRE FOR D. Acceleration
91. The friction experienced by a body when it is in motion is known as:
A. Static friction
B. Kinetic friction

CENTRE FOR C. Limiting friction
D. Normal friction
92. The resultant of two forces $P$ and $Q$ acting at an angle $\theta$ is :
A. $P^{2}+Q^{2}+2 P Q \sin \theta$
B. $P^{2}+Q^{2}+2 P Q \cos \theta$

CENTRE $\operatorname{C.} \sqrt{P^{2}+Q^{2}+2 P Q \sin \theta}$ IVE EXAMS
D. $\sqrt{P^{2}+Q^{2}+2 P Q \cos \theta}$

* As per Provisional Answer key Option B is given as correct answer

93. The keystroke ctrl+ $Y$ is $\qquad$ in Autocad

A. Undo<br>B. Redo<br>C. Polar Tracking ON/OFF<br>CENTRE FOR D. Cut

94. Which state grid is used to design perspective?
A. Prooptic
B. Rectangular

CENTRE FOR CC. Isometric OMPETITIVE EXAMS
D. Parametric

# 95. What is the keystroke for erase command in auto CAD? 

A. ES
B. ER

CENTRE FOR C. E ENGG. COMPETITIVE EXAMS
D. EL

## 96. What is the keystroke for break command?

A. B
B. BR
C. BS

CENTRE FOR CIVIL D. EX
97. From which menu bar do you get 'Line' command?
A. Layout
B. Modify

CENTRE FOR CC. Draw G. COMPETITIVE EXAMS
D. Insert
98. Which one of the following is not a valid option for drawing a circle?
A. 3 points
B. Tan Tan Centre
C. Tan Tan Radius titive Exams
D. Tan Tan Tan

* As per Provisional Answer key Option D is given as correct answer

99. Which command dialogue box contains preview command?
A. Plot
B. Plotter manager

CENTRE FOR C. Drafting setting
D. Drawing units
100. What is shortcut of print command?


