

# Draughtsman Civil– Semester 3 Module 1 - Planning of Building

Reviewed and updated on: 01<sup>st</sup> November 2019 Version 1.1

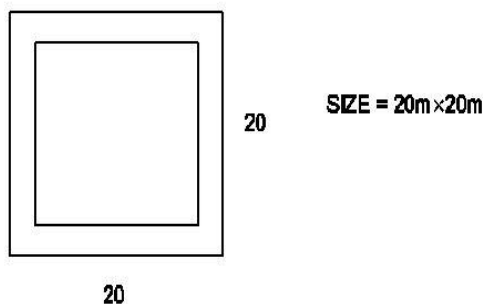
**1** : Which of the following is the basic need of a human being?

- A : Sheet
- B : Shelter
- C : Huts
- D : Tree

**2** : Which of the following gives major importance to outside view?

- A : Aspect
- B : Prospect
- C : Grouping
- D : Lighting

**3** : What is the shape of the given plan?



- A : Square
- B : Rectangle
- C : Oblong
- D : Circle

**4** : What is the other name of circulation in the same floor?

- A : Horizontal circulation
- B : Vertical circulation
- C : Zig - Zag circulation
- D : Winding circulation

**5** : Who is having legal interest in land or building?

- A : Leaser
- B : Mortgagee
- C : Mortgager
- D : Owner

**6** : Which of the following shape of plan makes home compact?

- A : Square
- B : Rectangle
- C : Oblong
- D : Circle

**7** : Which of the following standard should be considered in planning?

- A : IS codes for planning
- B : ISI
- C : NBC 2005
- D : Local building - Bye laws

**8** : Who is responsible for providing the legality of the plot?

- A : Leaser
- B : Mortgagee
- C : Mortgager
- D : Owner

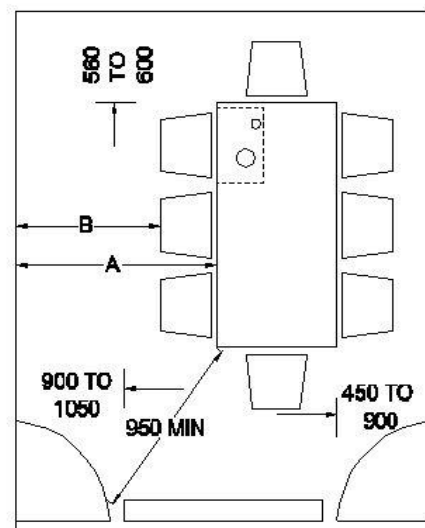
**9** : Which room should be situated near kitchen and drawing?

- A : Bed room
- B : Living room
- C : Dining room
- D : Hall

**10** : Which room is provided for learning and reading in residential building?

- A : Drawing room
- B : Study room
- C : Entertainment room
- D : Work room

**11** : What is the name of the room?



- A : Bed room
- B : Study room
- C : Dining room
- D : Multi purpose room

## Draughtsman Civil– Semester 3 Module 1 - Planning of Building

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**12** : How the economy achieved in building?

- A : Providing simple elevation
- B : Increasing the storey height
- C : Increasing steps of stairs
- D : Utilizing large sized component

**13** : What is the name of the useable floor area excluding staircase?

- A : Circulation area
- B : Carpet area
- C : Covered area
- D : Plinth area

**14** : What is the name of the built up area at the floor level?

- A : Plinth
- B : Plinth area
- C : Plinth height
- D : Plinth level

**15** : What is the formula for floor area ratio?

- A :  $(\text{Total area of walls} / \text{Total plot area}) \times 100$
- B :  $(\text{Total area of all floors} / \text{Total area of walls}) \times 100$
- C :  $(\text{Total area of all floors} / \text{Total plot area}) \times 100$
- D :  $(\text{Total plot area} / \text{Total area of all floors}) \times 100$

**16** : What should be the distance between building electric supply mains?

- A : 1.0 - 1.8 m
- B : 1.0 - 2.0 m
- C : 1.2 - 2.0 m
- D : 1.5 - 2.0 m

**17** : What is the minimum scale of which the key plan need to be drawn according to NBC - 2005?

- A : 01:50
- B : 1:100
- C : 1:200
- D : 1:400

**18** : Which plan is approved and sanctioned by competent authority?

- A : Approved plan
- B : Sanctioned plan
- C : Key plan
- D : Site plan

**19** : What is the name of the plan which gives location with respect to neighbourhood boundary in

1:10000?

- A : Site plan
- B : Key plan
- C : Layout plan
- D : Approved plan

**20** : What is the another name of dwelling unit?

- A : Row building
- B : Residential building
- C : Commercial building
- D : Educational building

**21** : What is the name of horizontally sliced building viewed from top?

- A : Plan
- B : Section
- C : Elevation
- D : Sectional elevation

**22** : What is the another name for "Sub-divisional plan"?

- A : Key plan
- B : Layout plan
- C : Sanctioned plan
- D : Approved plan

**23** : What is the maximum number of floors that can be allowed in residential building as per NBC 2005?

- A : 2 Floors
- B : 3 Floors
- C : 4 Floors
- D : 5 Floors

**24** : Which of the following IS code is used for fire safety?

- A : IS 1641 - 1960
- B : IS 456 - 200
- C : IS 291 - 1972
- D : IS 10711 - 1984

**25** : Which of the following is used as escape elements in building for fire safety?

- A : Lobbies
- B : Strong room
- C : Floors
- D : Outer walls

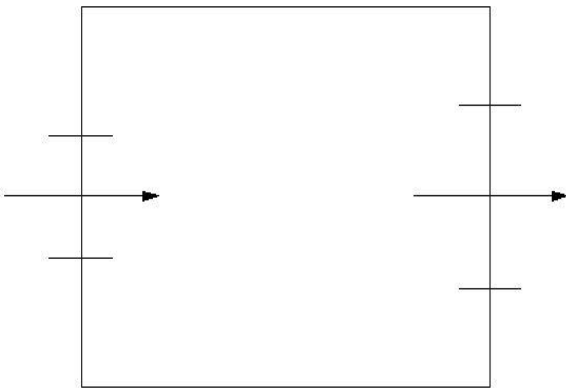
## Draughtsman Civil– Semester 3 Module 1 - Planning of Building

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- 26** : What is the abbreviation for MOEF?  
**A** : Ministry of Ecology and Forest  
**B** : Ministry of Environment and Federation  
**C** : Ministry of Environment and Forest  
**D** : Ministry of Ecology and Fire

- 
- 27** : Which does forest conservation act was passed?  
**A** : 1992  
**B** : 1980  
**C** : 1972  
**D** : 2000

- 
- 28** : What is the name of the figure given below?



- A** : Stack effect  
**B** : Wind effect  
**C** : Mechanical effect  
**D** : Artificial effect

- 
- 29** : Which of the following position of door and type of door shutter offer more privacy to room?  
**A** : Centre door - Single shutter  
**B** : Centre door - Double shutter  
**C** : Corner door - Single shutter  
**D** : Corner door - Double shutter

- 
- 30** : Which of the following room in residential building need more air changes per hour, while comparing to bed room in residential building?  
**A** : Drawing room  
**B** : Master bed room  
**C** : Kitchen  
**D** : Hall

- 
- 31** : If the area of the building is same, which of the following building is cheaper compared to single storey?

- A** : 2 storey building  
**B** : 3 storey building  
**C** : 4 storey building  
**D** : 5 storey building

- 
- 32** : Which of the following is the important advantage of orientation of building?  
**A** : Aesthetic  
**B** : Reduction in energy bills  
**C** : Improved circulations  
**D** : Outdoor projection

- 
- 33** : What is the minimum scale at which a building plan need to be drawn according to NBC 2005?  
**A** : 1:50  
**B** : 1:100  
**C** : 1:200  
**D** : 1:400

- 
- 34** : Which season gives more lighting to the building?  
**A** : Summer  
**B** : Winter  
**C** : Spring  
**D** : Autumn

- 
- 35** : What is the maximum covered area for an Industry?  
**A** : 40% of the site area  
**B** : 50% of the site area  
**C** : 60% of the site area  
**D** : 70% of the site area
-

## Draughtsman Civil– Semester 3 Module 2 - Types of Building

Reviewed and updated on: 01<sup>st</sup> November 2019 Version 1.1

**36** : What is the name of the group institutional building was classified?

- A : Group C
- B : Group E
- C : Group H
- D : Group I

**37** : Which type of building comes in group H?

- A : Hazardous
- B : Industrial
- C : Storage
- D : Business

**38** : What is the name of the part parallel between boundary and the building?

- A : Abut line
- B : Set back line
- C : Plot line
- D : Plinth line

**39** : What is the formula for carpet area?

- A : Total plot area - Circulation area
- B : Total circulation area - Floor area
- C : Total floor area - Circulation area
- D : Total area of all floors - Wall area

**40** : What is the full form of FSI?

- A : Floor Site Index
- B : Floor Space Index
- C : Floor Staircase Index
- D : Floor Storey Index

**41** : How many persons require one wash basin in public buildings?

- A : 100
- B : 150
- C : 175
- D : 200

**42** : Which building provides sleeping and cooking facilities?

- A : Institutional building
- B : Educational building
- C : Residential building
- D : Hotel building

**43** : Which is the important room in a residential building W.R.T NBC 2005?

- A : Kitchen
- B : Bed room
- C : Hall
- D : Drawing room

**44** : What is the normal life period of a residential building with concrete roof according to NBC 2005?

- A : 50
- B : 75
- C : 100
- D : 110

**45** : Which group in which custodial institution comes?

- A : Educational building
- B : Institutional building
- C : Assembly building
- D : Business building

**46** : What is the allowable height of riser in public building W.R.T to NBC 2005?

- A : 12 cm
- B : 15 cm
- C : 17 cm
- D : 19 cm

**47** : Which classification does row building comes in?

- A : Public building
- B : Residential building
- C : Educational building
- D : Institutional building

**48** : What is the lead air charges per hour needed in a restaurant kitchen?

- A : 8
- B : 10
- C : 12
- D : 14

**49** : Which classification of the building have highest F.A.R permissible?

- A : Residential building
- B : Educational building
- C : Institutional building
- D : Mercantile building

**50** : What is the permissible F.A.R for commercial building?

- A : 1.5
- B : 2
- C : 2.5
- D : 3

## Draughtsman Civil– Semester 3 Module 2 - Types of Building

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**51** : Where does laboratories comes in the under ground shopping?

- A** : Mercantile building
  - B** : Business building
  - C** : Industrial building
  - D** : Educational building
- 

**52** : What is the basic detail needed for a design engineer, while designing assembly building?

- A** : Area of plot
  - B** : Number of fixed seats
  - C** : Location of plot
  - D** : Total floor area
-

## Draughtsman Civil– Semester 3 Module 3 - Knowledge of CAD

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53 : What is the full form of CPU?

- A : Craft Processing Unit (CPU)
- B : Code Processing Unit (CPU)
- C : Central Processing Unit (CPU)
- D : CD Processing Unit (CPU)

54 : Which year does first micro processor was invented?

- A : 1970
- B : 1971
- C : 1972
- D : 1973

55 : What is the name of figure?



- A : Mouse
- B : Monitor
- C : Keyboard
- D : Plotter

56 : What is the full form of CADD?

- A : Computer Aided designing and Drafting
- B : Computer Aided Drafting and Drawing
- C : Computer Aided Drawing and designing
- D : Computer Aided Drawing

57 : What is the highest dots per inch (DPI) one can print a drawing?

- A : 800 dpi
- B : 1000 dpi
- C : 1200 dpi
- D : 1400 dpi

58 : What is the full form of GUI?

- A : Golden User Installation
- B : Graphical User Installation
- C : Graphical User Interface
- D : Geometrical User Interface

59 : What is the name of the tool bar given below?



- A : Draw
- B : Modify
- C : Dimension
- D : Visual styles

60 : What is the use of function key F3?

- A : OSNAP
- B : TABLET
- C : ISOPLANE
- D : SAVE AS

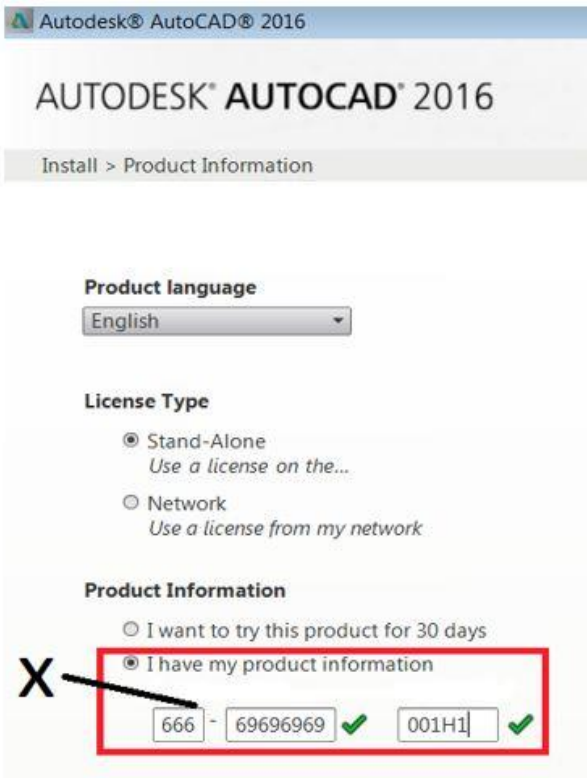
61 : Which of the following software is limited for AutoCAD installation?

- A : Windows DOS
- B : Windows 98
- C : Windows 03
- D : Windows 10

62 : What is the lowest RAM in which AutoCAD 19 will work?

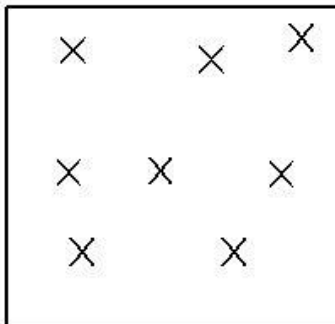
- A : 1 GB
- B : 2 GB
- C : 3 GB
- D : 4 GB

63 : What is name of the section denoted as 'X'?



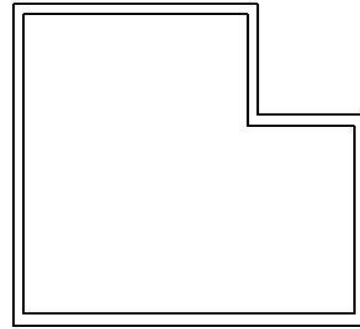
- A : Product key
- B : Auto key
- C : Product number
- D : Serial number

64 : What is the name of the command from the figure given below?



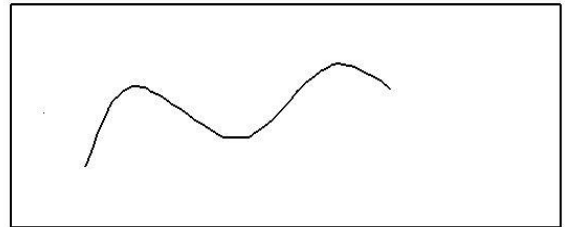
- A : Star command
- B : Array command
- C : Point command
- D : Trim command

65 : What is the name of the command in the figure given below?



- A : Offset
- B : Constraction line
- C : Multi line
- D : P line

66 : What is the name of the command in the figure given below?

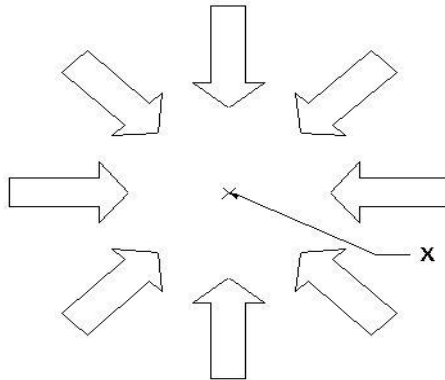


- A : P line
- B : M line
- C : Spline
- D : Poly line

67 : What is the full form of UCS?

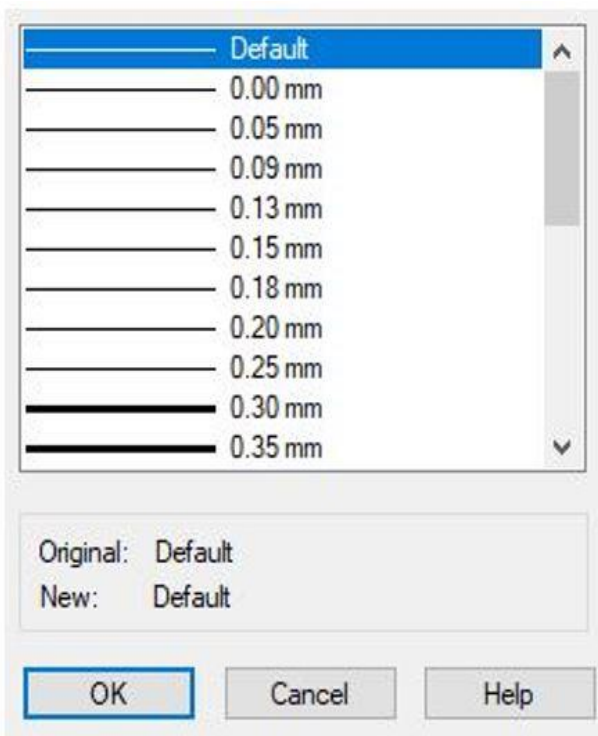
- A : User CAD System
- B : User CADD System
- C : User Co-ordinate System
- D : User Circle System

68 : What is the name of the point marked as 'x'?



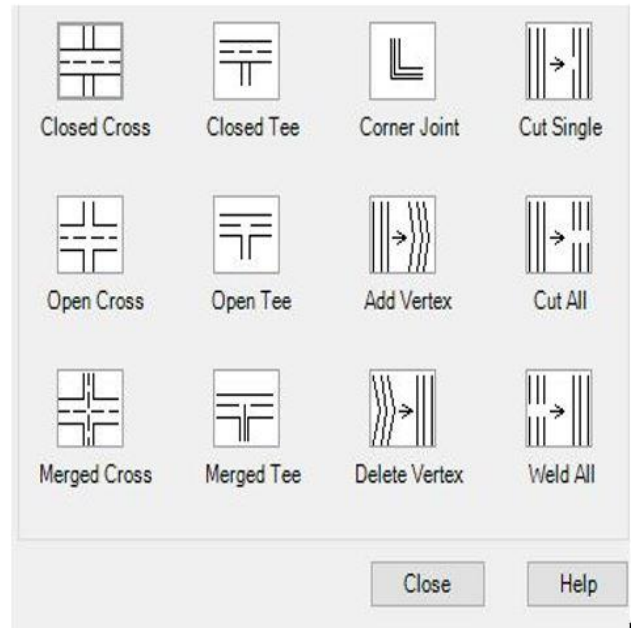
- A : Midpoint of dolar
- B : Midpoint of offset
- C : Centre point of array
- D : Centre point of leader line

69 : What is the name of the tool bar given below?



- A : Modify weight
- B : Line weight
- C : Multi line
- D : Units

70 : What is the name of the tool bar given below?



- A : Offset
- B : Multi line
- C : Line width
- D : Line weight

71 : Which command has the options given below?



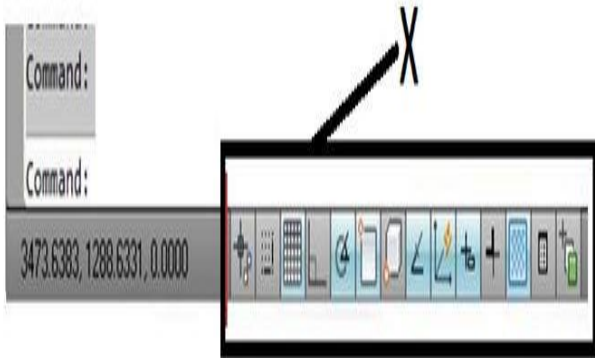
- A : Snap
- B : Pan
- C : Grid
- D : Real time



# Draughtsman Civil– Semester 3 Module 3 - Knowledge of CAD

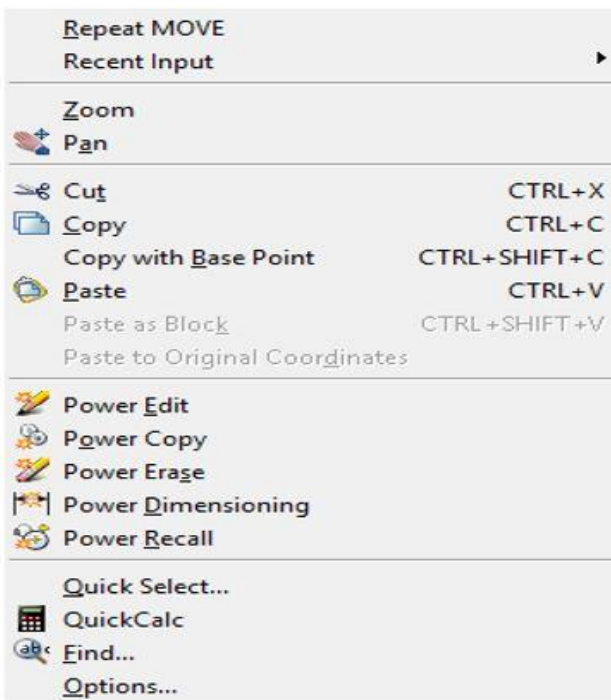
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72 : What is the name of the tool bar marked as 'x'?



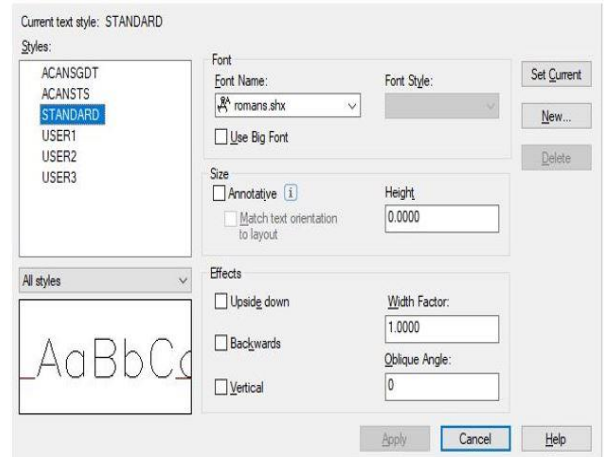
- A : Task button
- B : Snap button
- C : Option button
- D : Menu button

73 : How this option menu given below opens?



- A : Left click
- B : Right click
- C : Centre click
- D : Clicking F1

74 : What is the name of the menu bar given below?



- A : M text
- B : Text
- C : Text style
- D : Text colour

75 : Which shortcut key does the work of ortho?

- A : F6
- B : F7
- C : F8
- D : F9

76 : Which shortcut key does the work of Redo last action?

- A : Ctrl + Z
- B : Ctrl + Y
- C : Ctrl + C
- D : Ctrl + X

77 : What is the use of shortcut key 'H'?

- A : Help
- B : B hatch
- C : Hatch
- D : Hollow block

78 : What is the use of the shortcut key 'M Text'?

- A : Modify text
- B : Move text
- C : Multi text
- D : Menu text

79 : What is the use of 'Q' shortcut key?

- A : Quit
- B : Quick calc
- C : Save as
- D : "Q" leader

**80** : Which of the following shortcut keys gives quick calc?

- A** : Ctrl + 6
  - B** : Ctrl + 7
  - C** : Ctrl + 8
  - D** : Ctrl + 9
- 

**81** : Which of the following pointing device is cheaper while comparing the digitizer?

- A** : Key board
  - B** : Puck
  - C** : Mouse
  - D** : Enter key
- 

**82** : Which of the following commands has one major option?

- A** : Line
  - B** : M line
  - C** : P line
  - D** : Polygon
-

## Draughtsman Civil– Semester 3 Module 4 - Pre - Fabricated Structures

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**83** : What is the another name for pre-fabricated structures?

- A : Pre-developed structures
- B : Modular structures
- C : High structures
- D : Site fixing structures

**84** : What is the name of the prefabricating method?

- A : Flow method
- B : Fixed method
- C : Stand method
- D : Hand method

**85** : Which prefabricated method the units of moved to various section for process?

- A : Flow method
- B : Fixed method
- C : Stand method
- D : Vehicle method

**86** : What is the name of the concrete, that are prepared at factory and erected at site?

- A : Pre-stressed concrete
- B : Post-tensioned concrete
- C : Pre-casted concrete
- D : Post-casted concrete

**87** : What is the scale used for prefabricated structure?

- A : IS 15913 - 2011
- B : IS 15914 - 2011
- C : IS 15915 - 2011
- D : IS 15916 - 2011

**88** : What is the minimum distance between centres of any two adjacent rivet holes to the nominal diameter of the rivet is £ 25mm?

- A : Nominal diameter +1.0mm
- B : Nominal diameter +1.5mm
- C : Nominal diameter +2.0mm
- D : Nominal diameter +2.5mm

**89** : What is the first stage of prefabricated structure construction?

- A : Testing of raw materials
- B : Procurement of raw materials
- C : Concrete mix design
- D : Reinforcement preparation

**90** : Which part of the prefabricated building structure aim be constructed at site?

- A : Roof slab
- B : Foundation
- C : Main beams
- D : Fillers

**91** : Which system facilitates assembling of minor elements in conventional construction?

- A : Open pre-fab system
- B : Partial pre-fab system
- C : Full pre-fab system
- D : Closed pre -fab system

**92** : What is the name of assembling structural components at site?

- A : Open pre-fab system
- B : Partial pre-fab system
- C : Full pre-fab system
- D : Closed pre-fab system

**93** : Which is the production of housing components using factory mechanisation?

- A : Prefabrication
- B : Fabrication
- C : Construction
- D : Production

**94** : Which system is used with double tee slaps for precast beams and walls?

- A : Load bearing
- B : Non load bearing
- C : Framed structures
- D : Foundation

**95** : Which of the following concrete require transportation for placing?

- A : In site concrete
- B : Post tensioned concrete
- C : Pre cast concrete
- D : Pre- stressed concrete

**96** : Which of the following is the advantage of prefabricated structures?

- A : Transportation
- B : Need of heavy duty cranes
- C : Deformation of joints
- D : No need of fastening

**97** : What is the advantage of prefabricated structure?

- A** : Transportation
  - B** : No need of heavy duty cranes
  - C** : Firm joints
  - D** : Mass production
- 

**98** : Which section provide one monotitic action between prefabricated units?

- A** : Composite
  - B** : Steel
  - C** : Tensile
  - D** : Compression
- 

**99** : What is the procedure to attain complete action between stem and flange?

- A** : Laced together
  - B** : Tied together
  - C** : Keyed together
  - D** : Cutted together
- 

**100** : What is the disadvantage in prefabricated structure?

- A** : Shorter construction time
  - B** : Financial savings
  - C** : Reduced site disruption
  - D** : Transportation
-

# Draughtsman Civil– Semester 3 Module 5 - Public building and Earth quake resistant structure

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**101** : What is the area of playground for 1000 children?

- A : 0.10 hectare
- B : 0.13 hectare
- C : 0.16 hectare
- D : 0.20 hectare

**102** : Which one of the following is the hard land scape?

- A : Plantation
- B : Types of trees
- C : Design of space for people
- D : Terrace gardens

**103** : In which portion of tectonic plates, earthquake generally occurs?

- A : Plate boundaries
- B : Diversion plates
- C : Converging plates
- D : Middle portion

**104** : Which instrument is used to detect and record seismic waves?

- A : Barograph
- B : Seismograph
- C : Diagraph
- D : Hygrograph

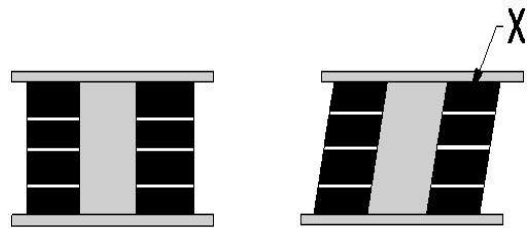
**105** : Which is known as hypocenter?

- A : Epicenter
- B : Focus
- C : Focal depth
- D : Epicentral distance

**106** : What is the percentage of the structural cost of the building in the additional cost for the earthquake resisting structure?

- A : About 1%
- B : About 2%
- C : About 3%
- D : About 5%

**107** : What is the name of the part marked as 'X'?



- A : Attachment plates
- B : Lead plug
- C : Rubber layer
- D : Stiffening plates

**108** : What is the minimum distance to be maintained for the door opening from the cross wall?

- A : End of the wall
- B : 300mm
- C : 500mm
- D : 1000mm

**109** : What is the minimum thickness for making R.C. Bands?

- A : 25mm
- B : 50mm
- C : 75mm
- D : 100mm

**110** : What is the distance between two through stones?

- A : 150 to 300mm
- B : 300 to 450mm
- C : 450 to 600mm
- D : 600 to 750mm

**111** : Which one of the following in structure is the most important factors affecting its earthquake performance?

- A : Workability
- B : Serviceability
- C : Flexibility
- D : Responsibility

**112** : Which precaution should be taken for site selection to prevent earthquake?

- A : Near unstable embankments
- B : On sloping ground
- C : Columns of different height
- D : Continuity of subsoil

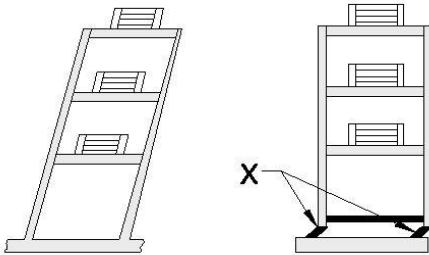
# Draughtsman Civil– Semester 3 Module 5 - Public building and Earth quake resistant structure

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**113** : Which shape of building plan is safer for earthquake resisting building?

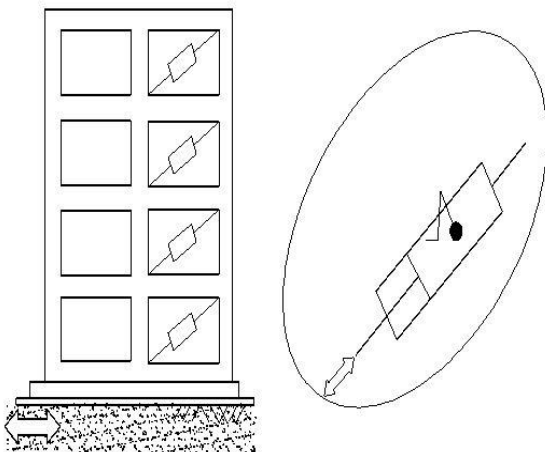
- A : Square plan
- B : T- shaped plan
- C : H- shaped plan
- D : Plan have length morethan twice the width

**114** : What is the name of the part marked as 'X'?



- A : Isolation bearings
- B : Fixed base
- C : Base
- D : Isolated

**115** : What is the name of the figure?



- A : Isolation bearings
- B : Viscous damper
- C : Friction damper
- D : Yielding damper

**116** : Which device act like shock absorbers between the building and its foundation?

- A : Damper
- B : Spring
- C : Base isolation
- D : Air bag

**117** : Which isolation bearings are highly elastic?

- A : Wood
- B : Steel
- C : Rubber
- D : Bearing pads

**118** : Which material is strong in tensile strength?

- A : Cement
- B : Sand
- C : Steel
- D : Water

**119** : What kind of material is concrete?

- A : Elasticity
- B : Brittle
- C : Stiff
- D : Malleability

**120** : What is the maximum size of particle in fine aggregate?

- A : 2.75 mm
- B : 3.75 mm
- C : 4.75 mm
- D : 5.75 mm

**121** : What is the ratio for M15 grade of concrete?

- A : 1:3:6
- B : 1:2:4
- C : 1:1.5:3
- D : 1:1:2

**122** : What is the PH value of water is used for concrete?

- A : 2 and 3
- B : 4 and 5
- C : 6 and 8
- D : 9 and 10

**123** : What is the maximum absorption limit for coarse aggregate under water for 24 hours?

- A : 3%
- B : 5%
- C : 7%
- D : 9%

**124** : When does the probs of slab is removed if the span is more than 4.5 m?

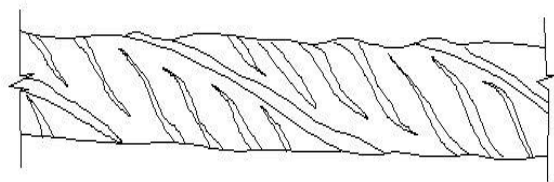
- A : 7 days
- B : 14 days
- C : 21 days
- D : 28 days

**125** : What is the distance between two yokes in column formwork?

- A : 0.50 m
- B : 1.00 m

- C : 1.50 m
- D : 2.00 m

**126** : What is the name of the bar shown in figure?



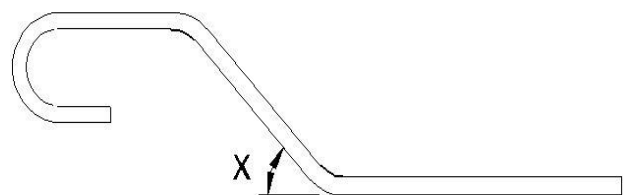
- A : Plain round bar
- B : Twisted bar
- C : Ribbed torsteel
- D : Square bar

**127** : What is size marked as 'x'?



- A : 4d
- B : 8d
- C : 9d
- D : 18d

**128** : What is the angle marked as 'x'?

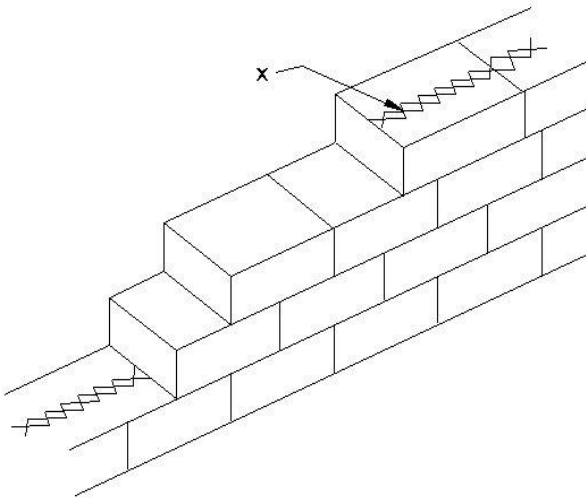


- A : 15°
- B : 30°
- C : 45°
- D : 60°

**129** : Which symbols denotes deformed bar?

- A :  $\phi$
- B :  $\square$
- C : #
- D : @

130 : What is the name of the part marked as 'x'?



- A : Steel plate
- B : Steel bars
- C : Reinforced bars
- D : Mesh reinforcement

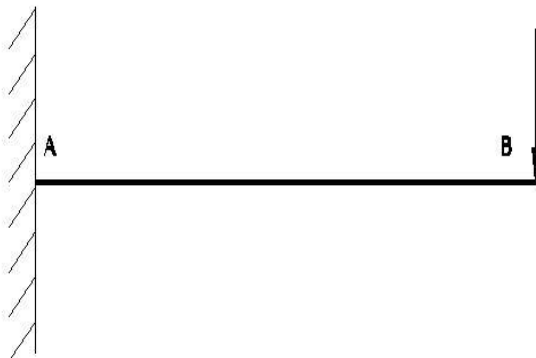
131 : How many days the R.B slab is kept wet?

- A : Two to four weeks
- B : One to two weeks
- C : One week
- D : 3 days

132 : Which type of beam has more than two supports?

- A : Cantilever beam
- B : Overhanging beam
- C : Fixed beam
- D : Continuous beam

133 : What is the name of the beam shown in figure?



- A : Simply supported beam
- B : Cantilever beam
- C : Over hanging beam
- D : Continuous beam

134 : What is the shape of the bending moment diagram over the length of beam carrying a uniformly distributed load?

- A : Linear
- B : Cubical
- C : Circular
- D : Parabolic

135 : What is the name of the load acting at a point?

- A : Point load
- B : Uniformly distributed load
- C : Trapezoidal load
- D : Triangular load

136 : What kind of labour is required for erection of RCC structures compared to steel structures?

- A : Less skilled
- B : Semi skilled
- C : Fully skilled
- D : No skilled

137 : Which of following is the advantage of reinforced concrete?

- A : Low maintenance cost
- B : Low compressive strength
- C : Low yield strength
- D : Low shear strength

138 : Which is the disadvantage of reinforced concrete?

- A : Light weight
- B : Low shrinkage
- C : Low strength
- D : Low maintenance cost

139 : Which material is used to increase the tensile strength in concrete?

- A : Mud
- B : Brick bats
- C : Quarry dust
- D : Steel

140 : What is the grade of concrete for the concrete mix proportion is 1:1.5:3?

- A : M 10
- B : M 15
- C : M 20
- D : M 25



**141** : What is the concrete mix proportion for M10?

- A : 1:3:6
- B : 1:2:4
- C : 1:1.5:3
- D : 1:1:2

**142** : What is the initial cost of timber formwork compared to steel formwork?

- A : Costly
- B : Moderately
- C : Cheap
- D : Very low

**143** : Which part of building, the clear cover 25 mm or dia of bar whichever is more is used?

- A : Beam
- B : Column
- C : Slab
- D : Foundation

**144** : What is mass of 10 mm dia of steel bar per meter?

- A : 0.302 kg
- B : 0.395 kg
- C : 0.617 kg
- D : 0.888 kg

**145** : Which type of reinforcement 6 mm diameter mild steel bars are used in walls?

- A : Vertical reinforcement
- B : Longitudinal reinforcement
- C : Horizontal reinforcement
- D : Spiral reinforcement

**146** : Where the bending moment is always zero?

- A : At supports
- B : At mid span
- C : At 1/5 of span
- D : At 1/7 of span

**147** : Which point of contraflexure occurs in the section?

- A : Bending moment is maximum
- B : Bending moment is zero or sign changes
- C : Shear force is maximum
- D : Shear force is minimum

**148** : Which condition the cracking occurs in concrete?

- A : Chilling
- B : Windy
- C : Humidity
- D : Milder climate

**149** : Which reinforcement is used for work of large dimensions, like massive foundation etc.?

- A : Rolled steel beams
- B : Fabric made by welding
- C : Square mesh
- D : Square bars

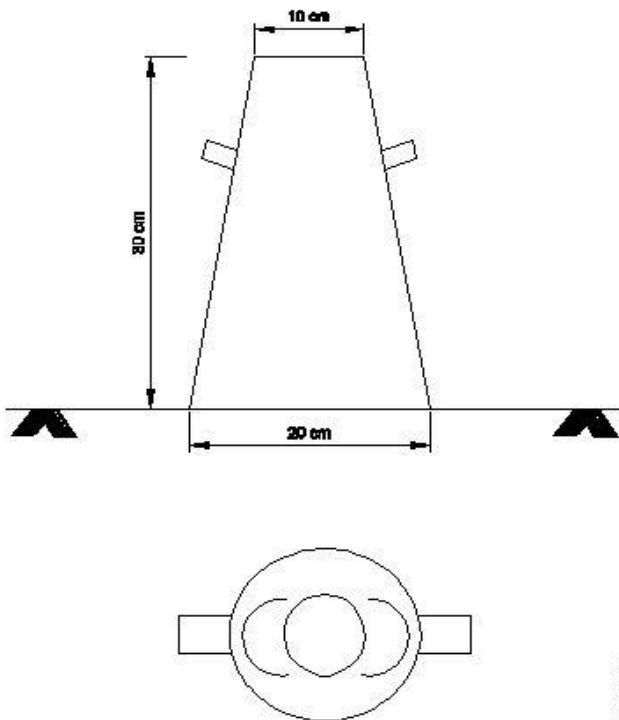
**150** : Which material is coated at all the faces of concrete mould?

- A : Water
- B : Sand
- C : Crude oil
- D : Glue

**151** : What is the permissible stress for grade Fe 500?

- A : 0.33 fy
- B : 0.44 fy
- C : 0.55 fy
- D : 0.66 fy

**152** : Name of the apparatus.



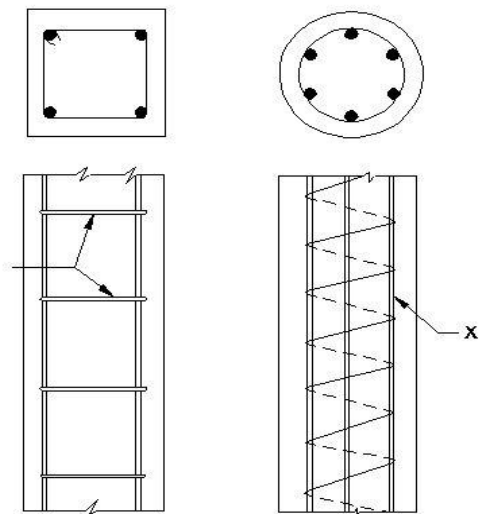
- A : Vicat's needle
- B : Slump cone

- C : Vibrating table
- D : Cylindrical moulds

**153** : What is the recommended slump for R.C.C work?

- A : 25 to 50 mm
- B : 40 to 50 mm
- C : 80 to 150 mm
- D : 90 to 100 mm

**154** : What is the name of the part marked as 'x'?



- A : Lateral ties
- B : Spiral reinforcement
- C : Vertical main steel
- D : Cover

**155** : Which RCC member, bridges two or more walls or columns and supports the structural member coming over it?

- A : Beam
- B : Column
- C : Footing
- D : Slab

**156** : What is the minimum number of main bars are provided for transverse reinforcement?

- A : Two
- B : Three
- C : Four
- D : Five

**157** : Which direction in one way slab the main reinforcement is provided?

- A : Transverse
- B : Length
- C : Width
- D : Depth

**158** : What is the maximum diameter of reinforcing bars to the total thickness of slab?

- A : 1/5
- B : 1/7
- C : 1/8
- D : 1/10

**159** : Which slab is supported on all four edges and the ratio of long span to short span is not more than two?

- A : One way slab
- B : Two way slab
- C : Continuous slab
- D : Cantilever slab

**160** : Name the reinforcement provided to counteract the tensional stress developed at corners of slab?

- A : Main reinforcement
- B : Torsion reinforcement
- C : Singly reinforcement
- D : Doubly reinforcement

**161** : How many vertical bars (minimum number) are provided for circular column?

- A : Four
- B : Six
- C : Eight
- D : Ten

**162** : Which of the following method is used for super structure component?

- A : Volumetric or modular construction
- B : Brick slip
- C : Rain screen
- D : Render system

**163** : Which of the following option is taken, if the phone line system will be jammed after earth quake?

- A : Text messages
- B : Call loudly
- C : Call through phone
- D : Whats app call

**164** : Which of the following operation need to be done during earthquake?

- A : Standing near the window
- B : Collet and put together an emergency kit
- C : Check your gas lines
- D : Cover and hold on under a desk/table

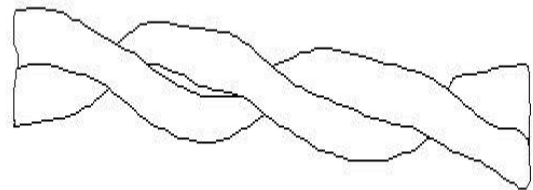
**165** : What will be the compressive strength of 15cm cube after 28 days for a ordinary concrete of grade M30?

- A : 30 N/mm<sup>2</sup>
- B : 36 N/mm<sup>2</sup>
- C : 40 N/mm<sup>2</sup>
- D : 53 N/mm<sup>2</sup>

**166** : Which reinforcement strength is preferred in R.C.C?

- A : Low tensile strength
- B : High tensile strength
- C : Bond strength
- D : Compressive strength

**167** : What is the name of figure shown?



- A : Twin twisted bar
- B : Ribbed for steel
- C : Grip bar
- D : Plain bar

**168** : Which bar the hooks are provided?

- A : Plain bars
- B : Hot rolled deformed bars
- C : Cold twisted bars
- D : Hard - drawn steel wire

**169** : What is the percentage reduction of strength for the 6 month old cement?

- A : 20%
- B : 30%
- C : 40%
- D : 50%

**170** : What is the total quantity of coarse and fine aggregate for 50kg cement for M15 grade of concrete required?

- A : 625 kg
- B : 480 kg
- C : 330 kg
- D : 250 kg

**171** : What is the compressive strength of 150 mm cube at 28 days ordinary concrete of grade M20?

- A : 15 N/mm<sup>2</sup>
- B : 20 N/mm<sup>2</sup>
- C : 25 N/mm<sup>2</sup>
- D : 30 N/mm<sup>2</sup>

**172** : Which type of cement available in three grades should be used for house construction?

- A : Ordinary portland cement
- B : Rapid hardening portland cement
- C : Portland slag cement
- D : High strength ordinary portland cement

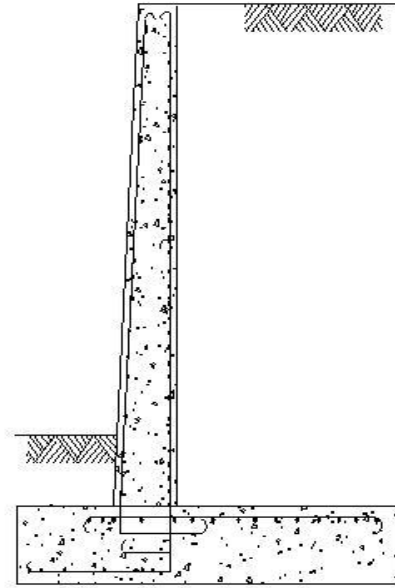
**173** : What is the clear cover for foundation slabs and beams?

- A : 15 mm
- B : 25 mm
- C : 40 mm
- D : 50 mm

**174** : What is the density of steel?

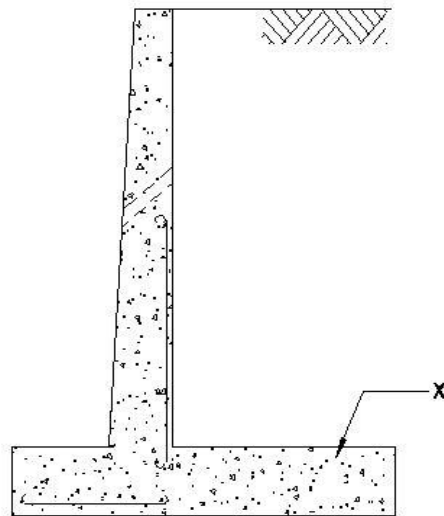
- A : 75.8 q/m<sup>3</sup>
- B : 78.5 q/m<sup>3</sup>
- C : 85.7 q/m<sup>3</sup>
- D : 87.5 q/m<sup>3</sup>

**175** : What is name of the retaining wall?



- A : Gravity retaining wall
- B : Semi gravity retaining wall
- C : Counter fort retaining wall
- D : Cantilever retaining wall

**176** : What is the name of the part marked as 'x'?

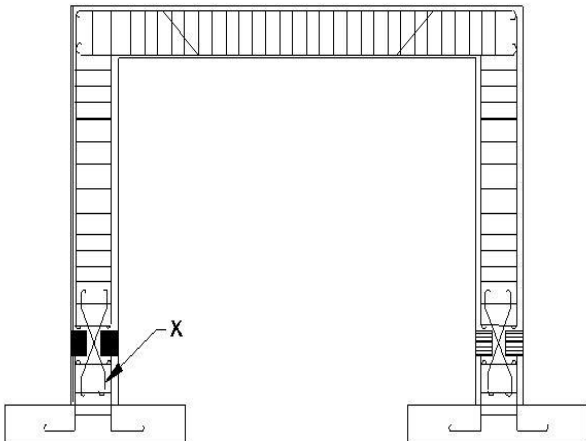


- A : Heel
- B : Toe
- C : Stem
- D : Weep hole

**177** : Which structure is constructed for the purpose of retaining earth or other materials like coal, ore, water etc.?

- A : Load bearing wall
- B : Non load bearing wall
- C : Retaining wall
- D : Wing wall

**178** : What is the name of the part marked as 'X'?

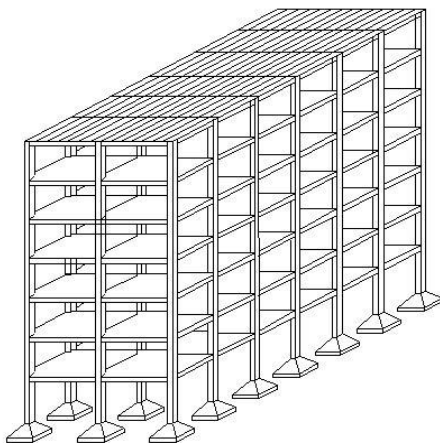


- A : Column support
- B : Bitumen filler
- C : Hinge reinforcement
- D : Foundation

**179** : What is the name of the structure in which components such as beam, column and footing are monolithic in design and construction?

- A : Portal frame
- B : Non-portal frame
- C : Rigid frame
- D : Gabled frame

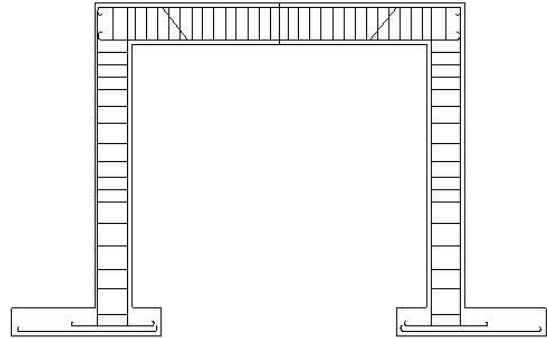
**180** : What is name of the structure?



- A : R.C.C framed structure

- B : Rigid frame structure
- C : Braced frame structure
- D : Portal frame structure

**181** : What is the name of the frame structure?



- A : Portal frame with hinge base
- B : Portal frame with fixed base
- C : R.C.C framed structure
- D : Portal frame

**182** : Which diameter of reinforcement bars are used for heavy foundations, large girders or counterforts?

- A : 20 mm
- B : 25 mm
- C : 32 mm
- D : 40 mm

**183** : Which type of mixer used for large quantity of concrete?

- A : Hand mixing
- B : Batch mixing
- C : Tilting drum mixers
- D : Continuous mixer

**184** : Where does covering of render is used?

- A : Roof
- B : Floor
- C : Outside of the building
- D : Inside of the building

**185** : What is length of one 'U' type hook?

- A : 4φ
- B : 8φ
- C : 9φ
- D : 18φ

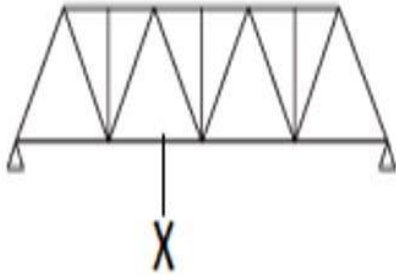
**186** : What is the excess length of the one side of the cranked bar?

- A : 0.212 d
  - B : 0.414 d
  - C : 0.616 d
  - D : 0.818 d
- 

**187** : What is the weight / m of 12 mm diameter round bar?

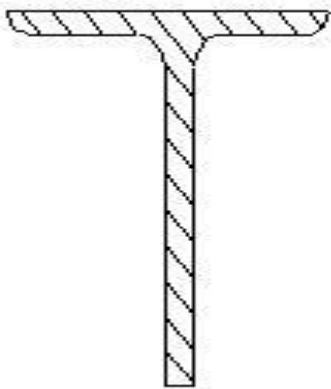
- A : 0.39 kg/m
  - B : 0.62 kg/m
  - C : 0.89 kg/m
  - D : 1.58 kg/m
-

188 : What is the name of the truss marked as 'x'?



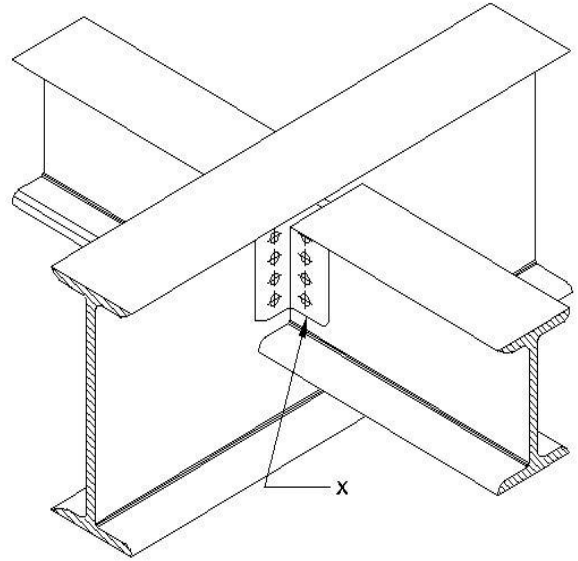
- A : Plate girder railway bridge
- B : Lattice tower
- C : Steel chimney
- D : Warron truss used in bridges

189 : What is the name of the steel section?



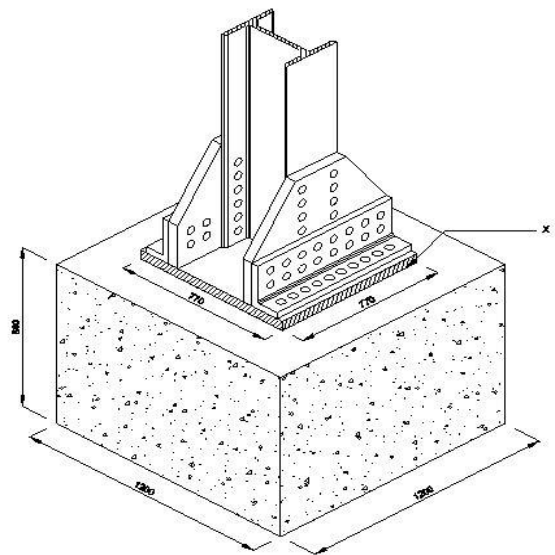
- A : H - section
- B : I - section
- C : T - section
- D : Z - section

190 : What is the name of part marked as 'x'?



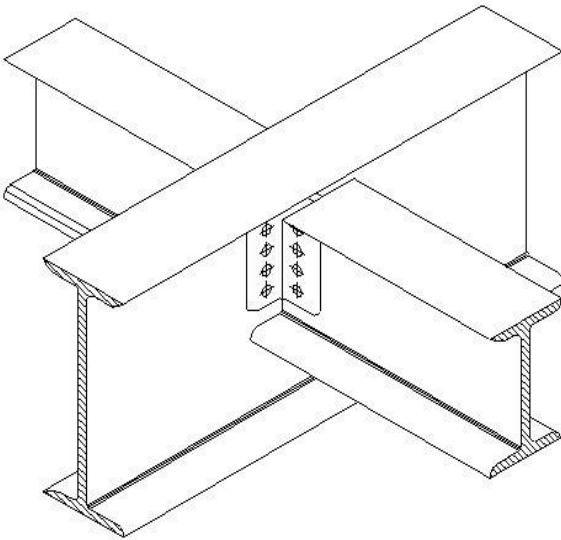
- A : Main beam
- B : Secondary beam
- C : Web cleats
- D : Seat angles

191 : What is the name of the part marked as 'x'?



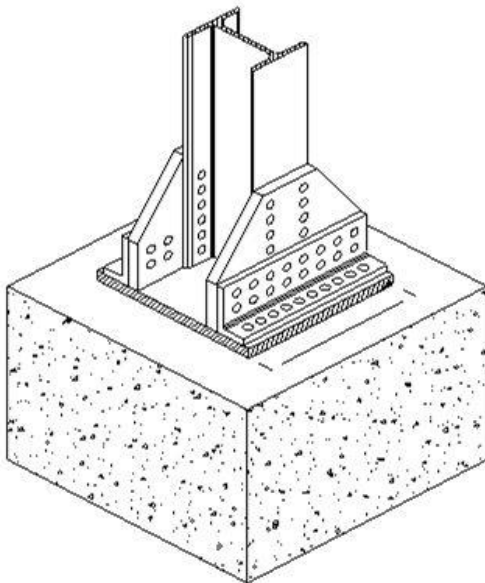
- A : Cement concrete base
- B : Base plate
- C : Cleat angle
- D : Gusset plate

**192** : What is the name of the connection?



- A : Framed connection
- B : Seated connection
- C : Column to beam framed connection
- D : Column to beam seated connection

**193** : What is the name of the connection?

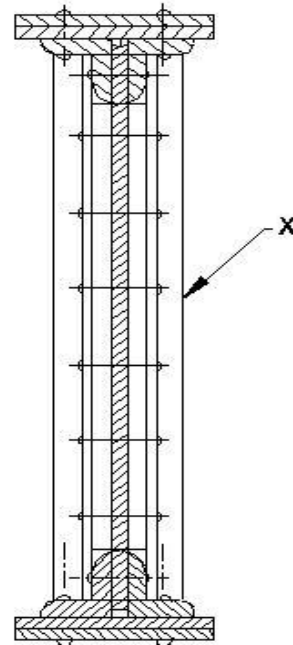


- A : Framed connection
- B : Column to beam connection
- C : Seated connection
- D : Steel stanchion

**194** : Which span the plate girders are used?

- A : More than 5 m
- B : More than 10 m
- C : More than 15 m
- D : More than 20 m

**195** : What is name of the part marked as 'x'?

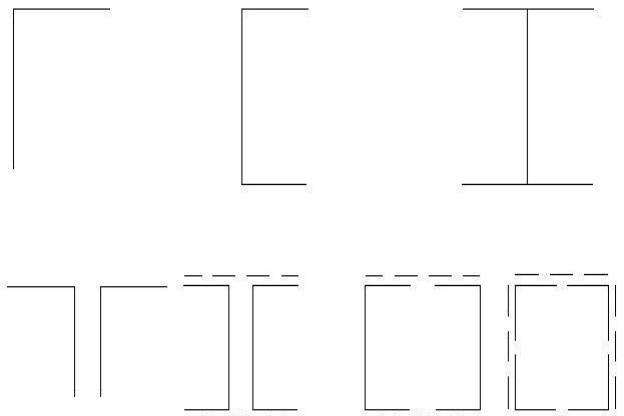


- A : Clearance
- B : Flange
- C : Stiffners
- D : Packing plate

**196** : Which member carries mainly tensile force?

- A : Tension
- B : Beams
- C : Plates
- D : Torsion

**197** : What is the name of the section?



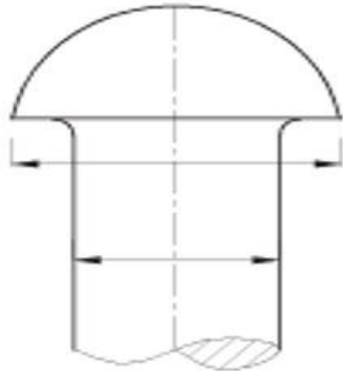
- A : Tension members
- B : Compression members
- C : Torsion members
- D : Beams



**198** : How much the diameter of the hole is larger than the nominal diameter of the rivet if it is less than or equal to 25 mm?

- A : 0.5 mm
- B : 1.0 mm
- C : 1.5 mm
- D : 2.0 mm

**199** : What is the name of rivet head?



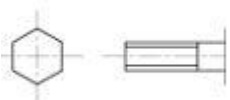
- A : Snap head
- B : Pan head
- C : Ellipsoidal head
- D : Conical head

**200** : Which riveted joint consists of two parallel rows and rivets where rivets are just opposite each other?

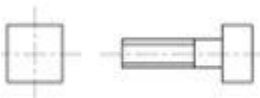
- A : Single riveted lap joint
- B : Double riveted single lap joint
- C : Double riveted single lap joint
- D : Single cover butt joint

**201** : Which figures refers the conventional symbol for cylinder screw cross slot?

A :



B :



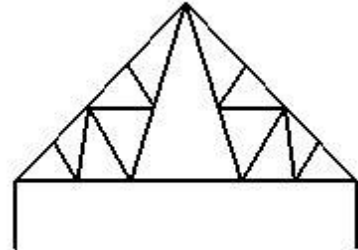
C :



D :



**202** : What is the name of the truss?



- A : Fink truss
- B : Fan truss
- C : Compound fan truss
- D : Compound fink truss

**203** : What advantage of cold former steel members over reinforced concrete and timber?

- A : Termite - proof and rot proof
- B : Economical
- C : Shrinking and creeping at temperature
- D : Less accurate detailing

**204** : What is the minimum distance between centres of any two adjacent rivet holes to the nominal diameter of the rivet?

- A : 1.00 time
- B : 1.50 times
- C : 2.00 times
- D : 2.50 times

**205** : What is the main advantage of structural steel?

- A : High strength
- B : Maintenance cost
- C : Slowly erection
- D : Fire proofing cost

## Draughtsman Civil– Semester 3 Module 9 - Sewerage system

Reviewed and updated on: 01<sup>st</sup> November 2019 Version 1.1

**206** : What is the name of the water obtained from tube well?

- A : Surface water
- B : Sub-surface water
- C : Ran-off
- D : Potable water

**207** : What is the full form of P.H.E.?

- A : Public Health Engineering
- B : Plumbing Heating Electrical
- C : Public Health Emergencies
- D : Peer Health Educations

**208** : What is the name of the liquid flowing in sewer?

- A : Sewer
- B : Sewage
- C : Sewerage
- D : Storm water

**209** : What is the name of the water coming out of the kitchen, bathroom, wash basin?

- A : Garbage
- B : Sullage
- C : Sewage
- D : Discharge

**210** : Which factor does sanitary sewage quantity directly depends on?

- A : Rate of water supply
- B : Area
- C : Population
- D : Precipitation

**211** : Which type of sewer system are preferred in India?

- A : Partial
- B : Combined
- C : Direct
- D : Separate

**212** : Which device is used to prevent sewer gased from entering the building?

- A : Filter
- B : Trap
- C : Ventilator
- D : Vacuum pump

**213** : What is the angle between the drains and inspection manhole?

- A : 45°
- B : 90°

- C : 135°
- D : 180°

**214** : Which pipeline is laid in buildings to take out the sewage under the ground?

- A : Steps
- B : Barrel
- C : Down tank
- D : Sewer

**215** : Which material is made by PVC pipes?

- A : Steel
- B : Plastic
- C : Copper
- D : Silver

**216** : Which type of trap is used in Indian water closet?

- A : S trap
- B : P trap
- C : U trap
- D : Gully trap

**217** : What is the first stage in sewage treatment process?

- A : Sedimentation
- B : Screening
- C : Filtration
- D : softening

**218** : What is the term for water inside trap which prevents gas from entering?

- A : Drain water
- B : Water seal
- C : Waste water
- D : Trap safety

**219** : What is the name of the appurtenance that are constructed at suitable intervals?

- A : Manholes
- B : Catch basin
- C : Pumps
- D : Sewer appurtenance

**220** : What is the type of manhole having a depth greater than 1.5 m is called?

- A : Straight manhole
- B : Deep manhole
- C : Shallow manhole
- D : Normal manhole

## Draughtsman Civil– Semester 3 Module 9 - Sewerage system

Reviewed and updated on: 01<sup>st</sup> November 2019 Version 1.1

**221** : What is the nominal shape of septic tank?

- A : Square
- B : Rectangle
- C : Circular
- D : Oval

**222** : Which material is used to make manhole cover?

- A : Cast iron
- B : Cement
- C : Wood
- D : Steel

**223** : What is the name for all kinds of liquid waste of a building?

- A : Rubbish
- B : Garbage
- C : Ashes
- D : Sewage

**224** : Which plumbing system is common in India?

- A : One pipe system
- B : Two pipe system
- C : Single stack system
- D : Single stack partially ventilated

**225** : Which pipe system of plumbing work soil and waste pipe are separated?

- A : One pipe system
- B : Two pipe system
- C : Separate system
- D : Combined system

**226** : How many chambers are there in a septic tank?

- A : 2
- B : 3
- C : 4
- D : 5

**227** : What should be the minimum diameter of the connecting pipe in the septic tank?

- A : 60mm
- B : 100mm
- C : 300mm
- D : 700mm

**228** : What is the maximum spacing of manhole sewer size upto 0.3 mf?

- A : 20 m
- B : 30 m

C : 45 m

D : 75 m

**229** : Which type of pump should be selected in order to pump the sewage from a septic tank to the water treatment system?

- A : Vertical slump pump
- B : Progressive cavity pump
- C : Centrifugal pump
- D : Screw pump

**230** : How does the intensity of rain is expressed?

- A : cm/minute
- B : cm/hour
- C : cm/day
- D : cm/week

**231** : Which gas is mainly produced in septic tank?

- A : Oxygen
- B : Nitrogen
- C : Hydrogen
- D : Hydrogen sulphide

**232** : What is the period for sludge digestion in normal conditions?

- A : 10 days
- B : 20 days
- C : 30 days
- D : 60 days

**233** : Which sewer resist sulphide corrosion?

- A : Brick sewer
- B : Cast iron sewer
- C : R.C.C. sewer
- D : Lead sewer

**234** : What is the average temperature of sewage in India?

- A : 10°C
- B : 15°C
- C : 20°C
- D : 25°C

**235** : What is the design of sewage treatment?

- A : 5-10 years
- B : 15-20 years
- C : 30-40 years
- D : 40-50 years

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**236** : What is the extension for 3D modelling file?

- A : 0.3d
  - B : 0.3dm
  - C : 0.3m
  - D : 0.3dmo
- 

**237** : Which command allows you to change 2D drawing into 3D model?

- A : 3D modelling
  - B : Extrude
  - C : C plan
  - D : Ortho
- 

**238** : What is the full form of WCS?

- A : Western Co- ordinate System
  - B : World Co- ordinate System
  - C : Wide Co -ordinate System
  - D : Wrong Co-ordinate System
- 

**239** : How many types of 3D modelling are in AutoCad?

- A : 1
  - B : 2
  - C : 3
  - D : 4
- 

**240** : How many types of surfaces are in surface modelling?

- A : 1
  - B : 2
  - C : 3
  - D : 4
- 

**241** : Which command allows you to change the direction and origin of construction plane?

- A : Plane
  - B : Splane
  - C : C- plane
  - D : O- plane
- 

**242** : What is the shortcut for grid command?

- A : F6
  - B : F7
  - C : F8
  - D : F9
- 

**243** : What is the shortcut for polar?

- A : F8
  - B : F9
  - C : F10
  - D : F11
- 

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**244** : What is the key for 3D OSNAP?

- A : F1
  - B : F2
  - C : F3
  - D : F4
- 

**245** : Which key is used to access shortcut command in IBM compatible computer?

- A : Ctrl
  - B : Alt
  - C : Ctrl + Alt
  - D : Tab
- 

**246** : What is the command used to toggle between isometric planes?

- A : Ctrl + E
  - B : Ctrl + F
  - C : Ctrl+ G
  - D : Ctrl + H
- 

**247** : What is the shortcut for design centre palatte?

- A : Ctrl +1
  - B : Ctrl + 2
  - C : Ctrl+ 3
  - D : Ctrl + 4
- 

**248** : What is the shortcut to cancel the last command selected?

- A : Ctrl + ]
  - B : Ctrl + [
  - C : Ctrl + }
  - D : Ctrl + ,
- 

**249** : What is the shortcut for rendering an image?

- A : RS
  - B : RSP
  - C : RP
  - D : RW
- 

**250** : What is the shortcut for rendering a specified part of drawing?

- A : RB
  - B : RC
  - C : RD
  - D : RP
-

## Draughtsman Civil– Semester 3 Module 10 - 3D modelling using CAD

Reviewed and updated on: 01<sup>st</sup> November 2019 Version 1.1

### ANSWERS :

1:B; 2:B; 3:A; 4:A; 5:D; 6:A; 7:D; 8:D; 9:C; 10:B; 11:C;  
12:A; 13:B; 14:B; 15:C; 16:C; 17:D; 18:B; 19:B; 20:B;  
21:A; 22:B; 23:B; 24:A; 25:A; 26:C; 27:B; 28:B; 29:D;  
30:C; 31:A; 32:B; 33:B; 34:A; 35:C; 36:A; 37:C; 38:B;  
39:C; 40:B; 41:A; 42:C; 43:B; 44:C; 45:C; 46:B; 47:B;  
48:C; 49:D; 50:B; 51:B; 52:B; 53:C; 54:B; 55:C; 56:A;  
57:C; 58:C; 59:A; 60:A; 61:D; 62:C; 63:D; 64:C; 65:C;  
66:C; 67:C ; 68:C; 69:B; 70:B; 71:B; 72:C; 73:C; 74:C;  
75:C; 76:B; 77:C; 78:C; 79:C; 80:C; 81:C; 82:C; 83:B;  
84:C; 85:A; 86:C; 87:D; 88:B; 89:B; 90:B; 91:B; 92:C;  
93:A; 94:A; 95:C; 96:D; 97:D; 98:A; 99:C; 100:D;  
101:B; 102:C; 103:A; 104:B; 105:B; 106:D; 107:C;  
108:C; 109:C; 110:D; 111:C; 112:D; 113:A; 114:A;  
115:B; 116:C; 117:C; 118:C ; 119:B ; 120:C ; 121:B ;  
122:C ; 123:B ; 124:B ; 125:B ; 126:C ; 127:A; 128:C ;  
129:C ; 130:D; 131:A; 132:A; 133:B ; 134:D; 135:A;  
136:A; 137:A; 138:C ; 139:D; 140:C ; 141:A; 142:C ;  
143:A; 144:C ; 145:B ; 146:A; 147:B ; 148:B; 149:A;  
150:C; 151:C; 152:B; 153:C; 154:C; 155:A; 156:A;

157:C; 158:C; 159:B; 160:B; 161:B; 162:A; 163:A;  
164:D; 165:A; 166:B; 167:A; 168:A; 169:B; 170:C;  
171:B; 172:A; 173:D; 174:B; 175:D; 176:A; 177:C;  
178:C; 179:A; 180:A; 181:B; 182:D; 183:D; 184:C;  
185:C; 186:B; 187:C; 188:D; 189:C; 190:C; 191:B;  
192:A; 193:D; 194:D; 195:C; 196:A; 197:B; 198:C;  
199:A; 200:B; 201:D; 202:D; 203:A; 204:D; 205:A;  
206:B; 207:A; 208:B; 209:B; 210:C; 211:B; 212:B;  
213:D; 214:D; 215:B; 216:B; 217:B; 218:B; 219:A;  
220:B; 221:B; 222:A; 223:D; 224:B; 225:B; 226:A;  
227:B; 228:B; 229:C; 230:B; 231:D; 232:C; 233:D;  
234:C; 235:C; 236:B; 237:B; 238:B; 239:C; 240:B;  
241:C; 242:B; 243:C; 244:D; 245:B; 246:A; 247:B;  
248:A; 249:C; 250:B;

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