

Surveyor – Semester 4 Module 1: Cartographic projection

Reviewed and updated on: 01st November 2019 Version 1.1

1 : What is the purpose of the theory of cartographic projection?

- A** : Study of all types of distortion
- B** : Study of hills
- C** : Study of water bodies
- D** : Study of soil

2 : What is the study and practice of making maps?

- A** : Hydrography
- B** : Topography
- C** : Cartography
- D** : Geography

3 : Where were the scientific foundations of cartographic laid?

- A** : Ancient Rome
- B** : Ancient India
- C** : Ancient Greece
- D** : Ancient Britain

4 : Which was considered to be the oldest cartographic projections?

- A** : Orthographic projection
- B** : Topographic survey
- C** : Geodetic survey
- D** : Gnomonic projection

5 : What is the use of oblique and transverse projections?

- A** : Reduces distortion
- B** : Reduces wind velocity
- C** : Increases distortion
- D** : Increases wind velocity

6 : Which are the special points of geographic co-ordination?

- A** : Poles
- B** : Longitudes
- C** : Altitudes
- D** : Latitudes

7 : What is the condition for the oblique projection?

- A** : $0 > \phi_0$
- B** : $0 > \pi/2$
- C** : $0 < \phi_0 < \pi/2$
- D** : $0 > \phi_0 > \pi/2$

8 : Who degenerate in to circles?

- A** : Ellipses of distortion
- B** : Longitudes

C : Latitudes

D : Altitudes

9 : Which is used to represents the great circle in orthodromic projection?

- A** : Rectangle
- B** : Ellipse
- C** : Parabola
- D** : Straight line

10 : Which projection uses the equidistant parallel lines for showing the meridians?

- A** : Cylindrical
- B** : Conic
- C** : Azimuthal
- D** : Pseudo conic

11 : Which is a particular case of azimuthal projection?

- A** : Isometric
- B** : Perspective
- C** : Conic
- D** : Cylindrical

12 : Which projection uses the concentric circles for representing parallels?

- A** : Pseudo Cylindrical
- B** : Cylindrical
- C** : Poly conic
- D** : Pseudo conic

13 : What are the factors on which the use and selection of cartographic projections depend?

- A** : Cost and scale
- B** : Purpose and cost
- C** : Purpose and scale
- D** : Cost and Purpose

14 : Which is used for general cartographic surveys?

- A** : Small scale map
- B** : Large scale map
- C** : Medium scale map
- D** : Large scale and Medium scale maps

15 : Which determine the nature of permissible distortion in the cartographic projection?

- A** : Purpose
- B** : Scale
- C** : Purpose and scale
- D** : Cost

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16 : Which formulas give a general method for obtaining the derivatives of the projections?

- A : $x = f_1(x,y)$ $y = f_2(x,y)$
- B : $x = (x,y)$ $y = (x,y)$
- C : $x = f_1(\phi,\tau)$ $y = f_2(x,y)$
- D : $x = f_1(x,y)$ $y = f_2(\phi,\tau)$

17 : What is the expansion of TMP?

- A : True Meridian Prediction
- B : True Meridian Projection
- C : Traverse Mercator Projection
- D : Transverse Mercator Projection

18 : How many secant lines are formed in the secant case of cylindrical projection?

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

19 : Which cylindrical projection is used in navigation?

- A : The Gauss
- B : The Mercator
- C : Perspective
- D : Azimuthal

20 : Which is the normal aspect of the conic projection ?

- A : Traverse
- B : Oblique
- C : Polar
- D : Parallel

21 : Which conic projections are most suitable for maps of mid latitude regions?

- A : Polar
- B : Oblique
- C : Parallel
- D : Transverse

22 : Which aspect of conic projection has an orientation between transverse between polar aspects?

- A : Oblique
- B : Parallel
- C : Normal
- D : Equatorial

23 : Which projections are especially suitable for territories that extend along parallels?

- A : Cylindrical

- B : Conic
- C : Azimuthal
- D : Pseudo conic

24 : Which is known as planar projection?

- A : Conic
- B : Azimuthal
- C : Cylindrical
- D : Oblique

25 : Which projections are used often for mapping polar regions?

- A : Azimuthal
- B : Conic
- C : Oblique
- D : Cylindrical

26 : Which aspect of planar projection has the plane oriented the perpendicular to the equatorial plane?

- A : Polar
- B : Normal
- C : Oblique
- D : Transverse

27 : Which projection preserves the property of Azimuthality?

- A : Conic
- B : Cylindric
- C : Planar
- D : Pseudo cylindric

28 : Which projections preserve directions from one or two points?

- A : Cylindric
- B : Azimuthal
- C : Conic
- D : Oblique

29 : Which is the most direct path between two locations across the surface of the globe?

- A : Great circle
- B : Great triangle
- C : Geographic meridian
- D : Azimuthal

30 : Which is a good projection for plotting airline connections?

- A : Conic
- B : Azimuthal

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C : Cylindric

D : Planar

31 : Which projections has concentric circles for parallels and their radii for meridians?

A : Planar

B : Cylindric

C : Conic

D : Azimuthal

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32 : Which kind of data are to be used by GIS?

- A : Spatial
- B : Binary
- C : Numeric
- D : Complex

33 : What is the meaning of spatial data?

- A : Decimal values
- B : Positional values
- C : Complex values
- D : Graphic values

34 : What is the expansion to GIS?

- A : Global information system
- B : Global information scheme
- C : Geographic information system
- D : Geographic information scheme

35 : Which is known as spatial databases?

- A : Concurrent data bases
- B : Mono data bases
- C : Geo data bases
- D : Decimal values

36 : Which form of energy moves with the velocity of light?

- A : Mechanical
- B : Electromagnetic
- C : Photo electric
- D : Electric

37 : Which satellites are stationary in reference to the Earth?

- A : Spot
- B : Land stat
- C : Geo - stationary
- D : Polar orbiting

38 : Which indicates the object that is being studied?

- A : Target
- B : Source
- C : Sensor
- D : Satellite

39 : Which remote devices collect and record the electromagnetic radiation?

- A : Sensor
- B : Satellite
- C : GPS
- D : GIS

40 : Which was the first Indian remote sensing satellite?

- A : SEO - II
- B : Bhaskara - I
- C : Bhaskara - II
- D : SEO - I

41 : Which is used to put the satellite into Earth orbit?

- A : Sensors
- B : Energy source
- C : Radiation
- D : Launch vehicle

42 : Which gives the user a frame work of obtain information?

- A : GPS
- B : GIS
- C : DGPS
- D : GNS

43 : What is the maximum values of the electric or magnetic field?

- A : Amplitude
- B : Altitude
- C : Frequency
- D : Wave length

44 : What is metal data?

- A : Contour data
- B : Meteorological
- C : Data about data
- D : Oceanic data

45 : Which is a network of satellites that determines specific co-ordinates on earth?

- A : GPS
- B : Digital theodolite
- C : Auto level
- D : Total station

46 : Which normally includes attribute information?

- A : GIS data
- B : GPS data
- C : CAD
- D : GNS

47 : Which is a data base for geographic location?

- A : GPS
- B : GIS

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- C : DGPS
D : SMPS

48 : Which is the information from CAD?

- A : Data base
B : Drawing
C : Symbols
D : Signs

49 : Which is a data base program?

- A : GPS
B : DGPS
C : GIS
D : CAD

50 : Which is the source of energy of passive remote sensing?

- A : Sun
B : Wind
C : Rain
D : Pressure

51 : Which acts as a medium for transmitting information from the target to the sensor?

- A : Sensor
B : Target
C : Energy source
D : Atmosphere

52 : Which are acquired with the help of specially designed cameras. Which are mounted on the aircraft?

- A : GIS
B : Aerial photography
C : GPS
D : DGPS

53 : Which is the technology of obtaining reliable information about objects through the photo images?

- A : Photo grammetry
B : DGPS
C : GPS
D : GIS

54 : Which techniques is used for producing three dimensional co-ordinates from two dimensional photography?

- A : DGPS
B : Photo grammetry

- C : GIS
D : GPS

55 : Which are mounted on the satellites in satellite remote sensing?

- A : Sensors
B : Camera
C : Telescope
D : GPS

56 : Which term is used to indicate the image formed by satellite in remote sensing?

- A : Drawing
B : Data base
C : Digital image
D : Digital view

57 : Which is more generic frame work?

- A : GIS
B : GPS
C : DGPS
D : GNS

58 : Which is the computer program that process data linked to certain places?

- A : GNSS
B : GNS
C : GPS
D : GIS

59 : Who records the reflectance value from various objects and form a digital image?

- A : Camera
B : GPS
C : Sensor
D : GNS

60 : Which process is used for the transmission of radio signals from the satellites in to the GPS receivers?

- A : Triangulation
B : Trilateration
C : Translocation
D : Positioning

61 : Which computer program is utilised to view and handle data about geographic locations?

- A : GIS
B : GPS

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C : DGPS

D : SMPS

62 : Who creates "Layers" with many pieces of information for the same area?

A : GNS

B : GNSS

C : GPS

D : GIS data base

Surveyor – Semester 4 Module 3: Global Positioning System

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63 : Which is the velocity of satellite in space segment?

- A : 5 km/s
- B : 2 km/s
- C : 3 km/s
- D : 4 km/s

64 : How many nations attended in the international Meridian conference?

- A : 15
- B : 20
- C : 25
- D : 28

65 : Who developed the GPS?

- A : USA
- B : India
- C : Russia
- D : Italy

66 : Which is the expansion of GPS?

- A : Global Processing System
- B : Global Positioning System
- C : Geographic Processing System
- D : Geographic Positioning System

67 : Which segments can use GPS receiver?

- A : Navigation
- B : Space
- C : Control
- D : User

68 : Which signal indicate the functioning of the space segment?

- A : Navigation
- B : Space
- C : User
- D : Control

69 : Which type of band can be used in the control segment?

- A : S
- B : N
- C : M
- D : K

70 : How many Orbit planes are available for satellites in space segment?

- A : 6
- B : 5

C : 4

D : 3

71 : Which is the main parameter used in Pseudo ranging?

- A : Time
- B : Distance
- C : Velocity
- D : Frequency

72 : Which is the path that an object in space follows as it circles the earth?

- A : Trajectory
- B : Orbit
- C : Locus
- D : Way

73 : Which object launched specifically to orbit the earth?

- A : Satellite
- B : Receiver
- C : User segment
- D : Control

74 : Which is the device that accepts incoming signals and converts them to a wave form?

- A : Receiver
- B : Control segment
- C : User segment
- D : Satellite

75 : What is the angle between the equatorial plane and the straight line?

- A : Longitude
- B : Graticule
- C : Latitude
- D : Bearing

76 : Which is the angle east or west from a reference Meridian to another Meridian?

- A : Latitude
- B : Longitude
- C : Graticule
- D : Bearing

77 : Which co-ordinate system enables every location on the Earth to be specified by a set of numbers or letters or symbols?

- A : Geographic
- B : Grid

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- C : Local
D : National

78 : Which is considered as a modern GPS technology?

- A : GIS
B : GPS mode
C : Instantaneous mode
D : Kinematic positioning technique

79 : What type of antenna is used in GPS system?

- A : Yagi
B : Helical array
C : Loop
D : Parabolic

80 : What is the grid formed by the Latitude and Longitude?

- A : Graticule
B : Meridian
C : Longitude
D : Latitude

81 : Which is the inclination of orbit planes of satellites in space segment of GPS?

- A : 50°
B : 45°
C : 55°
D : 40°

82 : What is Constellation?

- A : Arrangement of GPS satellite
B : Arrangement of receivers
C : Locating of unknown point
D : Measuring the distance

83 : When was the First GPS satellite deployed?

- A : February 1978
B : January 1978
C : March 1978
D : April 1978

84 : Who operates the control segment of GPS?

- A : Russian government
B : Italy
C : Indian Military
D : US Military

85 : Which classes of positioning techniques possess high precision?

- A : Kinematic techniques
B : Real-Time
C : Viscous technique
D : Real time kinematic

86 : Which was the first GPS instruments to be used for control surveying?

- A : Macrometer V- 1000
B : TI 4100 GPS
C : Transit 1A
D : Transit 1B

87 : When was the development of the transit system begin?

- A : 1956
B : 1950
C : 1958
D : 1884

88 : Which was the first Satellite navigation system to be used operationally?

- A : Transit
B : Grid
C : Propagation
D : Multi path

89 : What is the average accuracy of point positioning with the GPS?

- A : ± 10 m
B : ± 15 m
C : ± 20 m
D : ± 25 m

90 : Which is the Orbit period of Satellite in the space segment of GPS?

- A : 10 hrs
B : 20 hrs
C : 12 hrs
D : 24 hrs

91 : When the Internation Meridian conference was held?

- A : 1864
B : 1844
C : 1884
D : 1874

92 : Which is the height of satellite from the Earth?

- A : 20,200km
B : 20,000km

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C : 20,100km

D : 20,250km

93 : Which segment is used for shaping the velocity of the satellite orbit?

A : User

B : Control

C : Space

D : Navigation

94 : Which is the principle of GPS?

A : Resection

B : Trilateration

C : Trisection

D : Traversing

95 : Satellite generates which type of signals?

A : Visible rays

B : Radio waves

C : X-rays

D : Cosmic waves

96 : Which is having the same principle as that of determining position in GPS?

A : Compass

B : Traversing

C : Trisection

D : Resection

97 : What is the standard way to listing latitude and longitude?

A : DMS

B : DSM

C : SMD

D : SDM

98 : Which is the process of determining the position by intersecting distance?

A : Trilateration

B : Triangulation

C : Translocation

D : Differential positioning

99 : What is the process of locating unknown points by the formation of triangles?

A : Triangulation

B : Trilateration

C : Translocation

D : Differential positioning

100 : Which refers to a stop-gap method where the coordinates of points are available in real time?

A : Viscous techniques

B : Kinematic

C : Real time kinematic

D : Real time

101 : What is the process of tracing something with the GPS?

A : Tracking

B : Triangulation

C : Translocation

D : Trilateration

102 : Which works on the principle of the measurement of distance between the receiver and the satellite?

A : Total station

B : GPS mode

C : Theodolite

D : Auto level

103 : What is the process of caching objects that hide in the world with GPS co-ordinates?

A : Triangulation

B : Trilateration

C : Geocaching

D : Tri location

104 : Which technique is based on using at least two GPS receivers?

A : GPS

B : DGPS

C : SMPS

D : DPS

105 : How does troposphere affect the satellite signals?

A : Reflects the signals

B : Inversion occurs

C : Reduces velocity

D : Refracts the signals

106 : Which of the following error occurs due to atmospheric conditions?

A : Signals multi path

B : User

C : Natural

D : Propagation

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107 : What happens to the satellite signals as the density of the Ionosphere is high?

A : Velocity decreases

B : Signals strength increases

C : Velocity increases

D : Frequency reduces

Surveyor – Semester 4 Module 4: Hydro Graphic Survey

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108 : What is the science of measurement and description of features which affect the marine construction navigation, etc.,?

- A : GPS
- B : Hydrographic survey
- C : Topography
- D : Aerial survey

109 : Which is used synonymously to describe maritime cartography?

- A : Topography
- B : Aerial survey
- C : Cadastral survey
- D : Hydrography

110 : What is IHO?

- A : International Hydrographic Organisation
- B : Indian Hydrology Organisation
- C : Indian Health Organisation
- D : International Human Organisation

111 : Which survey is used for the determination of shore lines?

- A : Topographic
- B : Compass
- C : Hydrographic
- D : Theodolite

112 : Which survey is used for establishing mean sea level?

- A : Hydrographic
- B : Chain
- C : Compass
- D : Tacheometry

113 : What is the measurement of depth below the water surface?

- A : Level
- B : Bench mark
- C : Sounding
- D : Reduced level

114 : Which survey uses the sounding boat?

- A : Tachometry
- B : Levelling
- C : Theodolite
- D : Hydrographic

115 : What is the weight attached to the lead line in Hydrographic survey?

- A : Fathometer
- B : Sounding lead

- C : Sounding rod
- D : Sounding boat

116 : What is the use of Fathometer?

- A : Ocean sounding
- B : Ocean levelling
- C : Wind measuring
- D : Ranging

117 : What is the weight of sounding level in kg?

- A : 4 to 12
- B : 4 to 8
- C : 4 to 6
- D : 4 to 10

118 : Which is the process of keeping the survey vessel or boat on a known course ?

- A : Conning
- B : Ranging
- C : Offsetting
- D : Centering

119 : Which method of sounding is generally used for open seas up to 5 km off shore?

- A : Two angles from the shore
- B : Two angles from the boat
- C : Conning the survey vessel
- D : Tacheometry

120 : How a range line is marked in soundings ?

- A : By signals
- B : Angles
- C : Lengths
- D : Bearings

121 : Which is the most accurate method of locating the soundings ?

- A : Range and time intervals
- B : Range and one angle from the shore
- C : Cross rope
- D : Two angles from the shore

122 : Which sounding method uses the three point problem for locating the boat ?

- A : One angle from the shore & the other from the boat
- B : Cross rope
- C : Two angles from the shore
- D : Two angles from the boat

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123 : Which method is used to determine the periodical sounding at the same point?

- A : Two angles from the shore
- B : Intersecting ranges
- C : Two angles from the boat
- D : Cross rope

124 : What is the reduced level of the sub - marine surface in terms of the adopted datum?

- A : Reduced sounding
- B : Elevation
- C : Datum surface
- D : Bench mark

125 : What is L.W.O.S.T ?

- A : Low water ocean spring tides
- B : Low water optimum spring tides
- C : Low water opposing spring tides
- D : Low water ordinary spring tides

126 : What is the name of three armed protractor used for the plotting of sounding ?

- A : Mini drafter
- B : Junior drafter
- C : Station pointer
- D : Plotting scale

127 : What is M.L.W.S ?

- A : Mean Low Water Springs
- B : Maximum Level of Water Spring
- C : Mean Level of Water Springs
- D : Mean Level of Water surface

128 : What is the use of station pointer in sounding ?

- A : Ranging
- B : Fixing
- C : Plotting
- D : Sighting

129 : What is the time that elapse between the generation of spring tide and its arrival at the place ?

- A : Gross time
- B : Age of tide
- C : Net time
- D : Mean time

130 : What is the cause of the tides?

- A : Attractive force between earth and celestial bodies
- B : Attractive force b/w the celestial bodies

- C : Attractive force between sun and moon
- D : Attractive force within the earth

131 : What is the name of device used to measure the height of high and low waters?

- A : Altimeter
- B : Height indicator
- C : Tide gauge
- D : Pressure gauge

132 : Which is the simplest type of tide gauge ?

- A : Staff gauge
- B : Float gauge
- C : Weight gauge
- D : Self registering gauges

133 : Which tide gauge gives a graphical record?

- A : Float gauge
- B : Staff gauge
- C : Self registering gauges
- D : weight gauge

134 : What is the least count of board of staff gauge?

- A : 5 to 10 cm
- B : 5 to 10m
- C : 1 - 5 cm
- D : 1 - 5 m

135 : What is the use of eco sounder?

- A : To determine the depth of water
- B : To measure the velocity of water
- C : To determine the height of tide
- D : To measure the intensity of tide

136 : Which device is used for determining the depth of the sea bed ?

- A : Lagrangian
- B : Altimeter
- C : Current Meter
- D : Eco Sounder

137 : What is SONAR?

- A : Sound Navigation And Ranging
- B : Satellite Navigation And Ranging
- C : Sound Navigation and Reading
- D : Sound Navigation and Recording

138 : Which an oceanographic device for flow measurement?

- A : Pitot tube
- B : Orifice meter

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- C : Eco sounder
- D : Current meter

139 : Which current meter measures the displacement of an oceanographic drifter?

- A : Lagrangian
 - B : Propeller type
 - C : Eulerian
 - D : Tilt current meter
-

Surveyor – Semester 4 Module 5: Transmission Line Survey

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140 : Which is the structure used to support an overhead power line?

- A : Poles
- B : Transmission tower
- C : Sag template
- D : Polygon

141 : Which term comes from the basic shape of the transmission tower?

- A : Sag template
- B : Pole
- C : Pylon
- D : Line

142 : Which is the actual distance between two adjacent towers?

- A : Normal span
- B : Actual span
- C : Weight span
- D : Wind span

143 : Which is called the design span?

- A : Wind span
- B : Weight span
- C : Normal span
- D : Actual span

144 : Which transmission towers has pegs set along the center line of route alignment?

- A : Suspension
- B : Angle
- C : Transposition
- D : Alternative

145 : Who issues recommendations on marks for towers?

- A : The state civil aviation organization
- B : CPWD
- C : MES
- D : The international civil aviation organisation

146 : Which towers are needed each time the line takes a directional change?

- A : Angle
- B : Suspension
- C : Alternative
- D : Transposition

147 : Which towers are most common in the three phase line system?

- A : Alternative

B : Transposition

C : Angle

D : Suspension

148 : Which phase includes the study of available maps of the area ?

- A : Reconnaissance
- B : Pole line
- C : Final
- D : Alignment

149 : Which shows the ground elevation along the line and the top elevation of the poles?

- A : Plan
- B : Section
- C : Alignment
- D : Profile

150 : What is the distance of transmission line poles from curbs?

- A : 12 feet
- B : 3 feet
- C : 7 feet
- D : 2 feet

151 : What is the distance of transmission line poles from fire hydrants?

- A : 2 feet
- B : 12 feet
- C : 3 feet
- D : 7 feet

152 : Which curve is obtained by plotting the sag at a minimum temperature?

- A : Ground clearance
- B : Hot curve
- C : Cold curve
- D : Support foot

153 : Which curve is obtained by plotting the sag at measure temperature against span length?

- A : Hot curve
- B : Ground clearance
- C : Support foot
- D : Cold curve

154 : Which is used for allocating the position and height of the supports correctly on the profile?

- A : Tower
- B : Pole

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C : Sag Template

D : Lines

155 : Which curve is drawn to determine the up lift of conductor?

A : Support foot

B : Cold curve

C : Ground clearance

D : Cold curve

156 : Which tower is designed to support extra weight on a long distance line?

A : Transposition

B : Alternative

C : Angle

D : Suspension

157 : Which tower makes up the majority of the structure types on a high voltage line?

A : Angle

B : Suspension

C : Transposition

D : Alternative

158 : Which are important for the transport of large quantities of electricity over a long distance?

A : Templates

B : Poles

C : Lines

D : Towers

159 : What is the amount of overload factor of a suspension tower?

A : 1.05

B : 1.15

C : 1.10

D : 1.20

160 : What is the amount of overload factor for angle tower?

A : 1.15

B : 1.10

C : 1.20

D : 1.25

161 : Which foundation has its breadth greater than the depth?

A : Pile

B : Well

C : Shallow

D : Deep

Surveyor – Semester 4 Module 6: Surveys for Railway

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162 : Which is the combination of rails, sleepers, ballast and subgrade?

- A : Permanent way
- B : Formation
- C : Subgrade
- D : Yard

163 : Which is the minimum distance between the running faces of the two rails?

- A : Formation
- B : Coning
- C : Gauge
- D : Super elevation

164 : Which is the subgrade prepared to relieve the ballast?

- A : Yard
- B : Formation
- C : Permanent way
- D : Gauge

165 : What is the distance between the running faces of broad gauge?

- A : 0.610 m
- B : 0.762 m
- C : 1.676 m
- D : 1.576 m

166 : Which is the first engineering survey for laying a new railway line?

- A : Preliminary survey
- B : Location survey
- C : Final survey
- D : Reconnaissance survey

167 : Which survey used to locate the centre line of the railway line?

- A : Location survey
- B : Preliminary survey
- C : Reconnaissance survey
- D : Construction survey

168 : What is the interval of centre line pegs driven along the centre line of the track?

- A : 300 m
- B : 30 m
- C : 200 m
- D : 20 m

169 : What is the distance between the BM along the alignment of railway?

- A : 1 miles

B : More than 1 mile

C : 10 miles

D : Not more than 1/2 miles

170 : Which is preferred for the alignment of railway ?

- A : Valley line
- B : Ridge line
- C : Depression
- D : Hill

171 : Which is the next process of justification of alignment of railway ?

- A : Marking of alignment
- B : Reconnaissance
- C : Preliminary survey
- D : Location survey

172 : What are the members laid transversally under the rails?

- A : Ballast
- B : Spikes
- C : Chain
- D : Sleepers

173 : What are the granular materials of crushed stones provided under and around the sleepers?

- A : Rails
- B : Ballast
- C : Sleepers
- D : Sand

174 : What is the next stage of reconnaissance survey?

- A : Selection of good alignment
- B : Preliminary survey
- C : Final survey
- D : Marking of alignment

175 : What is the value of coning of wheels?

- A : 1 in 10
- B : 1 in 15
- C : 1 in 20
- D : 1 in 25

176 : Which is the other name of super elevation?

- A : Gradient
- B : Camber

Surveyor – Semester 4 Module 6: Surveys for Railway

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- C : Slope
D : Cant
-

177 : Which instrument is used in reconnaissance survey for measuring the magnetic bearing of alignment of railway?

- A : Prismatic compass
B : Theodolite
C : Chain
D : Level
-

178 : Which map is prepared during the reconnaissance survey of railway?

- A : Count our map
B : Index map
C : Cadastral map
D : Topographical map
-

179 : Which is the interval of cross levelling for the preliminary survey of alignment of railway?

- A : 100 m
B : 50 m
C : 20 m
D : 10 m
-

180 : Which is the next step of preliminary survey?

- A : Marking of alignment
B : Construction survey
C : Final survey
D : Estimating
-

181 : Which is the interval of masonry pillars for the centre line of alignment of railway?

- A : 500 m
B : 1000 m
C : 100 m
D : 750 m
-

182 : Which is the next stage of final survey alignment?

- A : Preparation of report
B : Construction survey
C : Fixing the alignment
D : Marking the alignment
-

183 : Which survey established the centre line of actual track to be laid?

- A : Location survey
B : Preliminary survey
C : Reconnaissance survey
D : Construction survey
-

Surveyor – Semester 4 Module 7: Building materials

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184 : Which rocks have clay as its base component?

- A : Argillaceous
- B : Calcareous
- C : Siliceous
- D : Stratified

185 : Which rocks show distinct signs of layers and can be split easily into layers?

- A : Argillaceous
- B : Unstratified
- C : Stratified
- D : Igneous

186 : What is the percentage of clay in a good brick earth?

- A : 20 to 30
- B : 10 to 20
- C : 35 to 50
- D : 20 to 30

187 : What is the standard size of bricks as per Indian standards?

- A : 20x10x10cm
- B : 22.8x11.4x7.6cm
- C : 20x9x9cm
- D : 19x9x9cm

188 : What is the weight of an ordinary brick?

- A : 3.2 kg
- B : 3.5 kg
- C : 3.8 kg
- D : 2.8 kg

189 : What is the weight of one bag of cement?

- A : 30 kg
- B : 58 kg
- C : 38 kg
- D : 50 kg

190 : What is the percentage of lime in cement?

- A : 50-58
- B : 60-67
- C : 20-30
- D : 10-15

191 : What is the length of Rotary kiln?

- A : 90-100 m
- B : 90-110 m

C : 90-120 m

D : 90-115 m

192 : Which lime is popularly known as fat lime?

- A : High calcium
- B : Slaked
- C : Hydraulic
- D : Quick

193 : What lime is known as caustic lime?

- A : Quick
- B : Slaked
- C : Fat
- D : Hydraulic

194 : What is the chemical formula for limestone?

- A : CaO
- B : Ca(OH)₂
- C : CaO₂
- D : CaCO₃

195 : Which lime is known as water lime?

- A : Hydraulic
- B : Slaked
- C : Quick
- D : Fat

196 : What is the value of fineness modulus of sand?

- A : 1.5-2.0
- B : 1.5-1.8
- C : 1.5-2.5
- D : 1.5-2.2

197 : Which aggregates have thickness small relative to width and length?

- A : Rounded
- B : Irregular
- C : Flaky
- D : Angular

198 : Which granular materials are chemically inert?

- A : Aggregates
- B : Cinders
- C : Pozzolana
- D : Ashes

199 : What is the value of specific gravity of good building stones?

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- A : 2.4 to 3.2
 - B : 2.4 to 2.8
 - C : 2.2 to 3.2
 - D : 2.2 to 2.8
-

200 : Which is the hard and durable building stone suitable for bridge abutments?

- A : Marble
 - B : Limestone
 - C : Granite
 - D : Slate
-

201 : Which process is used for the kneading of clay for attaining plasticity?

- A : Weathering
 - B : Drying
 - C : Tempering
 - D : Burning
-

202 : Which is used for the burning of raw materials of cements?

- A : Rotary kiln
 - B : Clamp
 - C : Potters kiln
 - D : Reverberatory furnace
-

203 : Which product is obtained by the grinding of bricks?

- A : Cinder
 - B : Pozzolana
 - C : Ashes
 - D : Surkhi
-

204 : What is the commonly used filler material in Engineering works?

- A : Cinder
 - B : Pozzolana
 - C : Sand
 - D : Surkhi
-

205 : Which waste material is obtained from the thermal power stations?

- A : Cinder
 - B : Pozzolana
 - C : Sand
 - D : Surkhi
-

206 : What is the mixture of both coarse and fine aggregates?

- A : Irregular aggregates
 - B : All in Aggregates
 - C : Flaky aggregates
 - D : Rounded aggregates
-

207 : Which aggregates retained in is - 4.75 mm?

- A : Fine
 - B : Coarse
 - C : Medium
 - D : All in aggregates
-

208 : Which is the nominal size of All in aggregates?

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

Surveyor – Semester 4 Module 8: Types of Foundation

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209 : Which distributes the load of a Structure on the wider area?

- A : Arch
- B : Root slab
- C : Foundation
- D : Lintel

210 : Which structural component provides a base for the Superstructure?

- A : Foundation
- B : Root slab
- C : Lintel
- D : Sunshade

211 : What is the generally adopted factor of safety for Building site?

- A : 2 to 3
- B : 2 to 4
- C : 3
- D : 3.5

212 : Which foundation covers the whole area in the form of a mat?

- A : Grillage
- B : Inverted Arch
- C : Raft
- D : Spread footing

213 : Which foundation has the arrangements like piles?

- A : Deep foundation
- B : Spread footing
- C : Cantilever footing
- D : Well foundation

214 : Which is also known as cantilever foundation?

- A : Strap footing
- B : Spread footing
- C : Combined footing
- D : Column footing

215 : Which footing distributes the load over larger area by Widening the base?

- A : Cantilever
- B : Spread
- C : Steap
- D : Combined

216 : What is the offsets on either side of the wall footing

- A : 5 cm
- B : 10 cm
- C : 15 cm
- D : 20 cm

217 : Which is the reason for over-burning of Superstructure?

- A : Temperature
- B : Rain
- C : Dampness
- D : Lateral Pressure

218 : What is the maximum height of wall that can be constructed in a day?

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

219 : What is the ratio between the ultimate bearing capacity and the safe bearing capacity of a soil?

- A : Load factor
- B : Factor of safety
- C : Ultimate Load
- D : Safe Load

220 : Which foundation you recommend for the soils having low bearing capacity to transmit load from steel columns?

- A : Cantilever footing
- B : Spread footing
- C : Raft
- D : Grillage

221 : Which footing is the most simplest and economical for brick pillars?

- A : Trapezoidal
- B : Square
- C : Rectangular
- D : Triangular

Surveyor – Semester 4 Module 9: R.C.C works

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222 : Which is the maximum particle size of the fine aggregates?

- A : 3.65 mm
- B : 4.75 mm
- C : 4.65 mm
- D : 3.75 mm

223 : What is the maximum size of coarse aggregate in the M20 grade of concrete?

- A : 20 mm
- B : 40 mm
- C : 10 mm
- D : 15 mm

224 : Which bar has its surface roughened to increase the resistance to slipping?

- A : Round
- B : Deformed
- C : Twisted
- D : Plain

225 : Which beam has its one end fixed and other end free?

- A : Simply Supported
- B : Cantilever
- C : Overhanging
- D : Fixed

226 : Which beam has its one or both ends project beyond the supports?

- A : Over hanging
- B : Cantilever
- C : Simply supported
- D : Fixed

227 : How many days are required for the removal of form work of walls columns and vertical sides of beams?

- A : 1-4
- B : 1-2
- C : 1-3
- D : 1-5

228 : Which column has the slenderness ratio less than 32?

- A : Individual
- B : Long
- C : Medium
- D : Short

229 : Which slab is supported on all its four edges ?

- A : Two - way
- B : One - way
- C : Cantilever
- D : Simply supported

230 : Which is the PH value of water used for the preparation of R.C.C.?

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

231 : Which is the mix proportion of M15?

- A : 1:1:2
- B : 1:2:4
- C : 1:3:6
- D : 1:4:8

232 : Which is code deals with the construction of R.C.C. structures?

- A : IS:456
- B : IS:1139
- C : IS:432
- D : IS:226

233 : What is the maximum value of effective span to the overall depth of a simply Supported one way slab?

- A : 35
- B : 30
- C : 12
- D : 20

234 : What is the maximum effective span to the overall depth of a cantilever one way slab?

- A : 10
- B : 12
- C : 15
- D : 20

Surveyor – Semester 4 Module 10: Estimation

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235 : What is the unit of measurement in MKS system for earthwork excavation in ordinary soil?

- A : 10M³
- B : M³
- C : M²
- D : 10M²

236 : Which Indicates incidental expense of miscellaneous character in an estimate?

- A : Contingency
- B : External services
- C : Work-charged establishment
- D : Centage charges

237 : Which is proposed as a guidance for the execution of work?

- A : General specification
- B : Brief specification
- C : Rough cost Estimate
- D : Detailed specification

238 : What are the essential drawing data required for the preparation of an Estimate?

- A : Plan and Section
- B : Elevation and Section
- C : Plan and Elevation
- D : Plan, Sectional Elevation and detailed drawings

239 : What is the useful area or the liveable area of a building?

- A : Plinth
- B : Circulation
- C : Floor
- D : Carpet

240 : Which is the built up covered area of a building measured at the floor level?

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

241 : Which estimate is required to decide the financial position and policy for the administrative sanction?

- A : Preliminary
- B : Detailed
- C : Supplementary
- D : Revised

242 : What is the range of contingencies in an approximate or preliminary Estimate?

- A : 5%-8%
- B : 5%-7%
- C : 5%-10%
- D : 10%

243 : Which approval authorises the engineering department to take up the work?

- A : Administrative
- B : Technical
- C : Expenditure
- D : Schedule

244 : Which means the sanction of the detailed estimate by the competent authority of the engineering department?

- A : Administrative sanction
- B : Expenditure sanction
- C : Technical sanction
- D : Administrative approval

245 : Which estimate is prepared while the expenditure on a work exceeds by more than 10%?

- A : Supplementary
- B : Revised
- C : Annual repair
- D : Cubical content

246 : Which estimate is prepared while the original sanctioned estimate is exceeded by more than 5%?

- A : Preliminary
- B : Revised
- C : Supplementary
- D : Plinth Area

247 : Which estimate is prepared for the technical sanction of the competent authority?

- A : Preliminary
- B : Cubical content
- C : Plinth area
- D : Detailed

ANSWERS :

1:A; 2:C; 3:C; 4:D; 5:A; 6:A; 7:C; 8:A; 9:D; 10:A; 11:B; 12:D; 13:C; 14:A; 15:C; 16:A; 17:D; 18:C; 19:B; 20:C; 21:A; 22:A; 23:B; 24:B; 25:A; 26:D; 27:C; 28:B; 29:A; 30:B; 31:D; 32:A; 33:B; 34:C; 35:C; 36:B; 37:C; 38:A; 39:A; 40:B; 41:D; 42:B; 43:A; 44:C; 45:A; 46:A; 47:B;

Surveyor – Semester 4 Module 10: Estimation

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48:B; 49:C; 50:A; 51:C; 52:B; 53:A; 54:B; 55:A; 56:C;
57:A; 58:D; 59:C; 60:B; 61:A; 62:D; 63:D; 64:C; 65:A;
66:B; 67:D; 68:A; 69:A; 70:A; 71:A; 72:B; 73:A; 74:A;
75:C; 76:B; 77:A; 78:D; 79:B; 80:A; 81:C; 82:A; 83:A;
84:D; 85:A; 86:A; 87:C; 88:A; 89:A; 90:C; 91:C; 92:A;
93:B; 94:B; 95:B; 96:D; 97:A; 98:A; 99:A; 100:C;
101:A; 102:B; 103:C; 104:B; 105:C; 106:A; 107:C;
108:B; 109:D; 110:A; 111:C; 112:A; 113:C; 114:D;
115:B; 116:A; 117:A; 118:A; 119:C; 120:A; 121:C;
122:D; 123:B; 124:A; 125:D; 126:C; 127:A; 128:C;
129:B; 130:A; 131:C; 132:A; 133:C; 134:A; 135:A;
136:D; 137:A; 138:D; 139:A; 140:B; 141:C; 142:B;
143:C; 144:A; 145:D; 146:A; 147:B; 148:A; 149:D;
150:D; 151:C; 152:C; 153:A; 154:C; 155:D; 156:A;
157:B; 158:D; 159:C; 160:A; 161:C; 162:A; 163:C;
164:B; 165:C; 166:D; 167:A; 168:A; 169:D; 170:B;
171:A; 172:D; 173:B; 174:A; 175:C; 176:D; 177:A;
178:B; 179:A; 180:C; 181:B; 182:A; 183:A; 184:A;
185:C; 186:A; 187:D; 188:A; 189:A; 190:B; 191:C;
192:A; 193:A; 194:D; 195:A; 196:C; 197:C; 198:A;
199:B; 200:C; 201:C; 202:A; 203:D; 204:C; 205:A;
206:B; 207:B; 208:B; 209:C; 210:A; 211:A; 212:C;
213:A; 214:A; 215:B; 216:A; 217:D; 218:D; 219:B;
220:D; 221:B; 222:B; 223:A; 224:B; 225:B; 226:A;
227:B; 228:D; 229:A; 230:A; 231:B; 232:A; 233:B;
234:B; 235:B; 236:A; 237:D; 238:D; 239:D; 240:C;
241:A; 242:C; 243:A; 244:C; 245:B; 246:B; 247:D;