

## Estimating and Costing\_Past Question Collection

1. Which of the following is not purpose of valuation?

[Civil Er. 6th 2079/02/21]

- A. Tax fixation
- B. Rent fixation
- C. Insurance Premium
- D. Tendering

Correct Answer: D

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2. Generally, the unit of measurement for partition wall is:

[Civil Er. 6th 2079/02/21]

- A. Sq.m
- B. Cu.m
- C. R.m
- D. Numbers

Correct Answer: A

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3. The cross section for a highway is taken at:

[Civil Er. 6th 2079/02/21]

- A. Right angle to the centre line
- B. 30m apart
- C. Intermediate points having abrupt change in gradient
- D. All of the above

Correct Answer: D

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4. The most reliable and accurate type of estimate is:

[Civil Er. 6th 2079/02/21]

- A. Detailed estimate
- B. Plinth area estimate
- C. Cube rate estimate
- D. Preliminary estimate

**Correct Answer: A**

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**5. The value of property (without being dismantled) at the end of the useful life period is known as:**

[Civil Er. 6th 2079/02/21]

- A. Scrap value
- B. Salvation value
- C. Junk value
- D. Book value

**Correct Answer: B**



**LOKSEWA**  
with Ghoksewa

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**6. Components of norms may be:**

[Civil Er. 6th 2079/02/21]

- A. Unit
- B. Clause of specification
- C. Necessary tool and equipment
- D. All of the above

**Correct Answer: D**

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**7. The rate of an item of work depends on:**

[Civil Er. 6th 2079/02/21]

- A. Specification of work
- B. Specification of material
- C. Proportion of mortar
- D. All the above

**Correct Answer: D**

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**8. In according to "Norms for rate analysis of road and bridge works, 2075", if approved rate for night time work is unavailable, rate may be used as "x" times higher than day times work. Value of "x" is:**

**[Civil Er. 6th 2079/02/21]**

- A. 1.2
- B. 1.4
- C. 1.6
- D. 1.8

**Correct Answer: B**

Explanation:

- ✓ Night time work requires additional resources like floodlights and safety measures.
- ✓ Manpower and equipment costs increase during night work.
- ✓ In absence of approved night rates, a multiplier of 1.4 is applied to day rates.
- ✓ This norm is specified in "Norms for Rate Analysis of Road and Bridge Works, 2075" by the Department of Roads, Nepal.

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**9. Working out the exact quantities of various items is known as:**

**[Civil Er. 6th 2079/02/21]**

- A. Estimating
- B. Quantity Surveying

- C. Mensuration
- D. Valuation

**Correct Answer: B**

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### 10. The most popular method of valuation is:

[Civil Er. 6th 2079/02/21]

- A. Depreciated method of valuation.
- B. Plinth area method of valuation
- C. Cost based method of valuation
- D. Rental method of valuation

**Correct Answer: D**

#### Explanation:

The rental (income) method is the most popular and widely used for valuing commercial, rental, and investment properties. It reflects the earning potential of the property, which is crucial for buyers, sellers, and banks.

Brief explanation on all the methods:

a. Depreciated method of valuation:

Value of an asset is calculated by subtracting accumulated depreciation from its original cost, reflecting its reduced worth over time due to use and age.

- ✓ Shows current (book) value, not market value
- ✓ Common for machinery, buildings, and equipment

b. Plinth area method of valuation:

Estimates building value by multiplying the plinth area (total covered area at floor level, including walls) by the current construction rate per unit area.

- ✓ Quick, simple for preliminary valuation
- ✓ Used for residential and public buildings

c. Cost based method of valuation:

Calculates property value as the cost to construct a similar new property minus depreciation, plus land value.

- ✓ Reflects replacement or reproduction cost
- ✓ Best for new or unique properties

d. Rental method of valuation:

Assesses property value based on its net rental income, capitalized using a suitable rate (year's purchase).

- ✓ Suitable for income-generating properties
- ✓ Considers gross rent minus expenses, multiplied by year's purchase

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**11. The rate analysis norms prepared by Government of Nepal includes....**  
[Civil Er. 7th Level 2080/10/27]

- A. Labor and material
- B. Labor, material and machine
- C. Labor, material and supervision charged
- D. None of the above

**Correct Answer: B**

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**12. In the construction industry, contractor's profit is included in.....**  
[Civil Er. 7th Level 2080/10/27]

- A. Contingencies
- B. Unit rate of items
- C. Work charged establishments
- D. Specifications

**Correct Answer: B**

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**13. The unit of measurement of doors and window hold-fast is.....**

**[Civil Er. 7th Level 2080/10/27]**

- A. lump sum
- B. number
- C. kg
- D. None of the above

**Correct Answer: C**

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**14. A detailed estimate is usually prepared during**

**[Civil Er. 7th Level 2080/10/27]**

- A. Conceptualization stage
- B. Planning stage
- C. Execution stage
- D. Completion stage

**Correct Answer: B**



**15. Rate analysis involved the determination of.....**

**[Civil Er. 7th Level 2080/10/27]**

- A. Project schedule
- B. Contractor qualifications
- C. Unit cost of an activity
- D. Environmental impact

**Correct Answer: C**

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**16. Performance specifications primarily focus on .....**

[Civil Er. 7th Level 2080/10/27]

- A. Describing materials and dimensions
- B. Outlining construction methods
- C. Setting functional requirements and results
- D. Assigning project responsibilities

**Correct Answer: C**

Explanation:

- ✓ Performance specifications emphasize what the finished product must achieve.
- ✓ They focus on results and functionality, not on materials or methods.
- ✓ Allow contractors flexibility in choosing materials and methods.
- ✓ Encourages innovation and efficiency while meeting required standards.
- ✓ Unlike prescriptive specs, they do not restrict construction processes.

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17. The quantity of soling is obtained in.....

[Civil Er. 7th Level 2080/10/27]

- A. m<sup>3</sup>
- B. m
- C. lump-sum
- D. m<sup>2</sup>

**Correct Answer: D**

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18. The estimation of building quantities like earthwork, foundation concrete or brick work etc. can be worked out by

[2073/11/2 वि.एण्ड आ. ]

- A. Long wall-short wall method
- B. Centre line method

- C. Partly center line and short wall method
- D. All of the above

**Correct Answer: D**

Explanation:

i. Long wall and short wall method

- the external out-to-out length of walls running in the longitudinal direction generally is considered as “long wall” while the in-to-in internal length of walls running in the transverse direction is called as “short wall” or “cross wall”.

- For calculating quantity, multiply the length with the breadth and height of the wall.

Length of Long Wall = Center to Center Length of wall + Half Breadth on One Side + Half Breadth on the Other Side

= Center to Center Length of wall + One Breadth

Length of Short Wall = Centre to Centre Length – One breadth

ii. Centre Line Method

- suitable for walls of similar cross sections. Here, the total centre line length is multiplied by breadth and depth of respective item to get the total quantity at a time.

- most accurate and quick method.

iii. Partly Centre Line and Short Wall Method

- adopted when external (i.e., around the building) wall is of one thickness and the internal walls are of different thickness.

- In such cases, centre line method is applied to external walls and long wall-short wall method is used to internal walls.

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**19. Generally the unit of measurement for partition wall is**

[2073/11/2 वि.एण्ड आ. ]

- A. cu m
- B. sq m
- C. running metre
- D. numbers

**Correct Answer: B**

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**20. The normal lead and lift for earthwork in road construction are taken, respectively, as**

**[2073/11/2 वि.एण्ड आ. ]**

- A. 30 m and 1.5 m
- B. 25 m and 1.0 m
- C. 20 m and 1.0 m
- D. 15 m and 0.5 m

**Correct Answer: A**

Explanation:

~ In construction, lead and lift are terms used to describe the distance and height of materials being moved during earthwork and excavation.

- Lead - It is the horizontal distance between the excavation and the place where the material will be spread out.
- Lift - It is the vertical distance through which the materials are lifted from the ground to the place where they will be spread out.

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**21. The unit of measurement is per quintal for the following**

**[2073/11/2 वि.एण्ड आ. ]**

- A. Collapsible gates with rails
- B. Rolling shutters

- C. Expanded metal wire netting
- D. M.S. reinforcement of R.C.C. works

**Correct Answer: D**

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**22. For the cost estimation of a building project at concept-development phase, the method used is**

**[2073/11/2 वि.एण्ड आ. ]**

- A. Plinth rate
- B. Cubic content rate
- C. Assumption based on similar project
- D. Detail estimate

**Correct Answer: C**

Explanation:

~ also known as analogous estimation.

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**23. When not specified, the volume of steel in RCC works is taken as**

**[2073/11/2 वि.एण्ड आ. ]**

- A. 1% to 1.5% of RCC volume
- B. 2% to 4% of RCC volume
- C. 0.6% to 1% of RCC volume
- D. None of the above

**Correct Answer: C**

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**24. Steel work which is measured in square meter is**

**[2073/10/25 Sanitary ]**

- A. Steel doors
- B. Collapsible gates
- C. Rolling shutters
- D. All of the above

**Correct Answer: D**

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**25. Supply of bricks is measured in terms of  
[2073/10/25 Sanitary ]**

- A. Cu.m
- B. Numbers
- C. Trucks
- D. None

**Correct Answer: B**

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**26. The quantity of partition wall is worked out in [2073/10/25 Sanitary]**

- A. m
- B.  $m^2$
- C.  $m^3$
- D. Lump sum

**Correct Answer: B**

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**27. While preparing an estimate, for which of following as deduction for  
openings in masonry the work is not made?**

**[2073/10/25 Sanitary ]**

- A. Up to 100 sq cm
- B. Up to 1000 sq cm
- C. Up to 10000 sq cm

D. Up to 10 sq. m.

**Correct Answer: B**

Explanation:

~ As per IS 1200, No deductions is made for following masonry works:

- Opening each up to 1000 sq cm i.e. 0.1 sq. meters.
- Ends of beams, posts, rafters, etc up to 500 sq cm or 0.05 sq. meters
- Bedplate, wall plate, bearing of a balcony (chajja) and the work extending up to 10 cm depth.
- The bearing of floor and roof slabs.

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**28. The provision for overhead and profit in the rate analysis is generally [2073/10/25 Sanitary ]**

- A. 5%
- B. 10%
- C. 15%
- D. 20%

**Correct Answer: C**

Explanation:

~ Overhead and profit are the costs added to the project's direct cost, to account for the services of the general contractor or construction manager.

Note: A profit of 10% is provided while overhead accounts for 5%.

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**29. Cube rate estimate is used for the estimation of [2073/10/25 Sanitary ]**

- A. Sewer line
- B. Canal head work

- C. Building
- D. Culverts

**Correct Answer: C**

Explanation:

~ It is an approximate method where the cost is calculated by multiplying the total cubical content (volume) of building by local cubic rate of building of similar nature and type.

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**30. Centering and shuttering of form work is measured in [2073/10/25 Sanitary ]**

- A. Sq. m
- B. Running meter
- C. Cubic meter
- D. None of the above

**Correct Answer: A**



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**31. Specification is important because [2073/10/25 Sanitary ]**

- A. It give idea of work
- B. It describe the final product
- C. It is used in estimate
- D. None of the above

**Correct Answer: A**

Explanation:

~ It is a detailed description of the dimensions, construction, workmanship, materials etc., of work done or to be done, prepared by an architect, engineer etc.

## Importance

- to provide clear instructions on the intent, performance and construction of a project
- to reference the quality and standards to be applied
- to clearly define the materials and manufacturers' products
- to identify requirements for installation, testing and handover

By defining the standards to be applied, materials to be used and the performance of a project, specifications guide the construction and completion of projects.

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### 32. The value of a structure dismantled at the end of utility period is its [2073/10/25 Sanitary ]

- A. Market value
- B. Book value
- C. Salvage value
- D. Scrap value

**Correct Answer: D**

#### Explanation:

- Market value - It is the amount, which can be obtained at any particular time from the open market if the property is put for sale.
- Book value - It is the amount after allowing necessary depreciations.
- Salvage value: It is the value of the property at the end of the utility period without being dismantled.
- Scrap value: It is the value of the property at the end of the utility period after being dismantled.

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### 33. Number of bricks of size 20cmx10cmx 10cm required for 100 cubic meters of masonry walls is [Civil Er. 2073/11/16 General]

- A. 500
- B. 5000
- C. 50000
- D. 500000

**Correct Answer: C**

Explanation:

Given,

Length of brick,  $L = 20 \text{ cm} = 0.2 \text{ m}$

Breadth of brick,  $B = 10 \text{ cm} = 0.1 \text{ m}$

Height of brick,  $H = 10 \text{ cm} = 0.1 \text{ m}$

Volume of brick =  $L \times B \times H = 0.2 \times 0.1 \times 0.1 = 0.002 \text{ m}^3$

To find: no. of bricks required for 100 cubic meter of masonry wall,

$\therefore$  No of bricks =  $100/0.002 = 50,000$  nos.

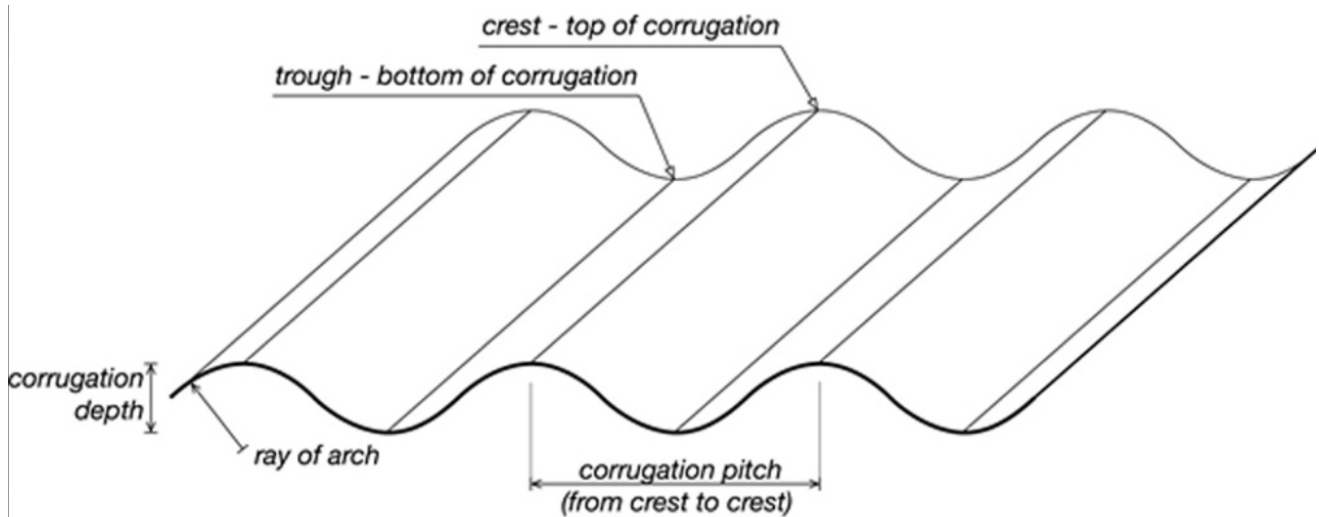
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**34. Besides standard length and width of a corrugated sheet, one important dimension usually considered in cost estimates is**

**[Civil Er. 2073/11/16 General]**

- A. Pitch of corrugation
- B. Depth of corrugation
- C. Gauge of the material
- D. Spacing of corrugation

**Correct Answer: A**



Explanation:

- Pitch of corrugation - distance between two crests of a corrugated surface.
- Depth of corrugation - distance between the top of a crest and the bottom of a trough.
- Gauges are used to specify the thickness of a sheet metal. These are neither standard nor metric and the values are independent of those measurement systems. A gauge conversion chart can be used to determine the actual thickness of sheet metal in inches or millimeters. For example, 18 gauge steel, according to a gauge conversion chart, is 0.0478 inch or 1.214 millimeter.
- Corrugation spacing is measured from crest to crest, which is the width, and from valley to crest, which is the depth.

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**35. "Bill of quantities" are prepared by**

**[Civil Er. 2073/11/16 General]**

- A. Quantity surveyors
- B. Vendors
- C. Geodetic Surveyors
- D. Suppliers

**Correct Answer: A**

Explanation:

- It is a statement of various items of work giving the description, quantities and unit of rates. (rates and amount column are left blank; to be filled by contractors)
- primarily meant for tendering purpose.

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### 36. Normally the retention money is paid to the contractors

[Civil Er. 2073/11/16 General]

- A. After completion of the construction works
- B. After final selection of the contractor
- C. After completion of the defects liability period
- D. after tax clearance

**Correct Answer: C**

Explanation:

~ It is the amount held back by employers from a payment made to contractors under a construction contract, as a security for their performance.

Normally it is 5% and is released after the completion of the defects liability period (13 months).

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### 37. The weight of 10 mm diameter mild steel rod per metre length is equal to

[Civil Er. 2071/11/09 Highway]

- A. 0.22 kg
- B. 0.32 kg
- C. 0.42 kg
- D. 0.62 kg

**Correct Answer: D**

Explanation:

~ Weight of steel bar per meter =  $D^2/162$

**38. The measurement of steel grills is taken in terms of**  
**[Civil Er. 2071/11/09 Highway]**

- A. volume
- B. weight
- C. area
- D. None of the above

**Correct Answer: B**

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**39. In the subject of Valuation the word "outgoings" includes**  
**[Civil Er. 2071/11/09 Highway]**

- A. Repair cost
- B. reinstatement cost
- C. municipal, land tax, income tax, insurance
- D. all of the above

**Correct Answer: D**

Explanation:

~ Outgoings are the expenses that are required to be incurred to maintain the revenue of the building.

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**40. The rate of an item of work depends on**  
**[Civil Er. 2071/11/09 Highway]**

- A. specification of works
- B. specification of materials
- C. methods of construction
- D. all of the above

**Correct Answer: D**

Explanation:

~ The rate of an item of work depends on several factors, including:

- Specifications - The type of construction, quality of materials, proportion of mixes, and how the work will be executed
- Quantity and cost of materials - The amount and cost of materials needed for the work
- Labor costs and wages - The cost of labor and the wages paid to laborers
- Overhead costs - Overhead and establishment charges
- Profit - The desired profit for the work
- Location of the work site - The location of the work site and the distances from sources, as well as conveyance charges

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**41. In the centre line method of working out volumes for cross walls, what deductions must be made from the centre line length at each T junction?**

**[Civil Er. 2071/11/09 Highway]**

- A. twice the breadth
- B. breadth
- C. 1-5 breadth
- D. half the breadth

**Correct Answer: D**

Explanation:

- L Junction - There is no need to deduct from centre line length.
- T Junction - Half ( $1/2$ ) breadth wall measurement should be deducted from centre line length.
- Cross Junction (+) - Full breadth of wall is to be subtracted from the centre line length.

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**42. When engineering departments undertake the works of other departments, the amount charged towards design, supervision and execution etc. is called**

[Civil Er. 2071/11/09 Highway]

[Civil Er. 2069/10/08 Sanitary]

- A. work charged establishment
- B. contingencies
- C. service charges
- D. Centage charges

**Correct Answer: D**

Explanation:

~ 10 % to 15 % of the estimated cost.

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**43. The value of the property (without being dismantled) at the end of the useful life period is known as**

[Civil Er. 2071/11/10 ]

- A. Scrap value
- B. Salvation value
- C. Junk value
- D. Book value

**Correct Answer: B**

Explanation:

- Scrap value - value of the material at the end of its useful life, after being dismantled.
- Salvage value - value of the material at the end of its useful life, without being dismantled.
- Junk value - The value of an asset when it becomes absolutely useless except for sale as junk or scrap.
- Book value - value of the property shown in account book in that particular year i.e. original cost minus total depreciation till that year.

**44. According to Nepal standard, in one cubic meter of brick masonry; number of brick required is**  
[Civil Er. 2071/11/10 ]

- A. 560
- B. 460
- C. 400
- D. 425

**Correct Answer: A**

Explanation:

- Machine made = 530
- Hand made = 560

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**45. The capacity of a flushing cistern is normally**  
[Civil Er. 2071/11/10 ]

- A. 12 to 15 liters
- B. 20 to 25 liters
- C. 30 to 40 liters
- D. 1 to 5 liters

**Correct Answer: A**

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**46. The measurement of steel grills is taken in terms of**  
[Civil Er. 2071/11/10 ]

- A. Volume
- B. Weight
- C. Area
- D. None of the above

**Correct Answer: B**

47. The quantity for expansion joints in buildings is worked out in  
[Civil Er. 2071/11/10 ]

- A. m<sup>3</sup>
- B. m<sup>2</sup>
- C. m
- D. Lump-sum

Correct Answer: C

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48. A layer of dry bricks put below the foundation concrete, in the case of soft soils, is called

[Civil Er. 2071/11/10 वि.एण्ड आ. ]

[Civil Er. 2071/11/02 General]

- A. Soling
- B. Shoring
- C. D.P.C.
- D. None of the above

Correct Answer: A

Explanation:

i. Soling - Soling is the bottom most layer below the foundation of road, building or rail etc. It is constructed layer by layer to make it more compacted by roller to avoid voids.

ii. Shoring - It is form of prop or support usually temporary that is used during the repair or original construction of building excavations.

iii. DPC (Damp proof course) - DPC is generally applied at basement levels which restrict the movement of moisture through walls and floors. Its thickness may vary from 4 cm to 15 cm.



**49. A document containing detailed description of all the items (not quantities) of work together with their current rates is called**

**[Civil Er. 2071/11/14 Hydropower]**

**[Civil Er. 2071/11/02 General]**

**[Civil Er. Irrigation 2068/11/12]**

- A. tender form
- B. schedule of rates
- C. Analysis of rates
- D. abstract estimate

**Correct Answer: B**

Explanation:

- Tender form - form when a tenderer can fill the details of their proposed offer to complete the work.
- Analysis of rates - determination of rate per unit of a particular item of work.
- Abstract estimate - preliminary estimate to determine the approximate cost.

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**50. Bills of quantities are prepared by a "taking off" in which the cost of a structure estimated from measurements in**

**[Civil Er. 2071/11/14 Hydropower]**

- A. drawings
- B. average
- C. site
- D. lump sum quantity

**Correct Answer: A**

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**51. The approximate weight of one cubic meter of mild steel is**

**[Civil Er. 2071/11/14 Hydropower]**

- A. 1000 kg
- B. 2400 kg
- C. 14,000 kg
- D. 7850 kg

**Correct Answer: D**

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**52. Of the total estimated cost of the building, the cost of electrification usually accounts for**

**[Civil Er. 2071/11/14 Hydropower]**

- A. 1%
- B. 5%
- C. 8%
- D. 20%

**Correct Answer: C**

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**53. The scrap value of a RCC structure is generally**

**[Civil Er. 2071/11/02 General]**

- A. Zero
- B. Negative
- C. Positive
- D. Not predictable

**Correct Answer: B**

Explanation:

~ You need to pay to dismantle an RCC structure which is greater than the value you get from the remains.

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**54. While estimating for plastering, usually no deduction is made for**

**[Civil Er. 2071/11/02 General]**

- A. ends of beams
- B. Small openings up to 0.5 sqm
- C. ends of rafter
- D. All of the above

**Correct Answer: D**

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**55. The value of property that can be obtained at any particular time from the open market if the property is put for sale, is known as**

**[Civil Er. 2071/11/02 General]**

- A. Market value
- B. Book value
- C. Current Value
- D. rateable value

**Correct Answer: A**

Explanation:

~ Rateable value is the estimated annual rental value of a commercial property which is calculated by a valuation officer.

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**56. The amount provisioned for tools and plants on earthwork excavation item in norms for rate analysis is**

**[Civil Er. 2071/11/02 General]**

- A. 3% of material
- B. 3% of labour
- C. 5% of material
- D. 5% of labour

**Correct Answer: B**

**57. Estimate expected to be least accurate is**  
**[Civil Er. 2071/11/16 Irrigation]**

- A. Supplementary estimate
- B. Plinth area estimate
- C. Detailed estimate
- D. Revised estimate

**Correct Answer: B**

Explanation:

- Detailed Estimate - It is an accurate estimate and consists of working out the quantities of each item of work, and working the cost.
- Revised Estimate - It is a detailed estimate and prepared when the original sanctioned estimate is exceeded or likely to exceed by more than 5% or when the expenditure on work exceeds or likely to exceed the amount of administrative sanction by more than 10% or when there are material deviation even though cost is same.
- Supplementary Estimate - It is a detailed estimate and is prepared when additional works are required to supplement the original works or when further development is required during the progress of work.
- Plinth Area Estimate - It is an approximate estimate prepared on the basis of plinth area of building and multiplying it by plinth rate of similar building having similar specification, heights and construction, in the locality.

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**58. The estimate that is used for monitoring the project during construction is known as**

**[Civil Er. 2071/11/16 Irrigation]**

- A. bid estimate
- B. control estimate

- C. design estimate
- D. detailed estimate

**Correct Answer: D**

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**59. Number of bricks required for 1m<sup>3</sup> of brick masonry are**  
**[Civil Er. 2071/11/16 Irrigation]**

- A. 400
- B. 450
- C. 500
- D. 550

**Correct Answer: C**

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**60. An estimate is**  
**[Civil Er. 2071/11/16 Irrigation]**

- A. calculation of quantities required in the construction of a work
- B. the computation of expenditure likely to be incurred in the construction of a work
- C. both A and B
- D. None of the above

**Correct Answer: C**

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**61. The brick work is not measured in cubic meter in case of**  
**[Civil Er. 2071/11/16 Irrigation]**

- A. one or more than one brick wall
- B. brick work in arches
- C. reinforced brick work
- D. half brick wall

**Correct Answer: D**

**62. In measuring formwork, no deduction is made for opening up to  
[Civil Er. 2070/11/12 B & Arch]**

A.  $1m^2$

B.  $0.5m^2$

C.  $0.4m^2$

D.  $0.01m^2$

**Correct Answer: C**

Explanation:

✓ According to IS: 1200 (Part V)-1982, Clause No. 6.4 "Method of measurement of building and civil engineering works - Formworks"

No deductions are made for openings up to  $0.4 m^2$  in formwork measurements.

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**63. The most accurate estimate is  
[Civil Er. 2070/11/12 B & Arch]**

A. detailed estimate

B. cube rate estimate

C. plinth area estimate

D. revised estimate

**Correct Answer: A**

Explanation:

- Cube rate estimate - calculated by finding the cubical contents of the building and multiplying by cube rate determined from the cost of similar building having similar specifications and construction in the locality.
- Plinth area estimate - calculated by finding the plinth area of the building and multiplying by plinth area rate.

Note: Both are approximate methods however cube rate estimate is more accurate than plinth area estimate as the height of building is also compared.

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**64. In absence of detailed design, the percentage of steel in concrete columns is usually estimated as**

**[Civil Er. 2070/11/12 B & Arch]**

- A. 10 to 15%
- B. 5 to 10%
- C. 1 to 5%
- D. 15 to 20%

**Correct Answer: C**

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**65. Which estimate is expected to be least accurate?**

**[Civil Er. 2070/11/12 B & Arch]**

- A. plinth area estimate
- B. supplementary estimate
- C. revised estimate
- D. detailed estimate

**Correct Answer: A**

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**66. The valuation of a building depends upon**

**[Civil Er. 2070/11/12 B & Arch]**

- A. its structure and durability
- B. quality of material used
- C. size, shape and type
- D. all of the above

**Correct Answer: D**

---

**67. Valuation is done to find**

**[Civil Er. 2070/11/12 B & Arch]**

- A. imaginary worth of a property
- B. real worth of a property
- C. past work of a property
- D. future worth of a property

**Correct Answer: B**

---

**68. The minimum width of a septic tank is taken**

**[Civil Er. 2070/11/12 B & Arch]**

- A. 60 cm
- B. 75 cm
- C. 90 cm
- D. 120 cm

**Correct Answer: B**

---

**69. Specifications for the hold fasts are given in terms of**

**[Civil Er. 2070/11/10 Highway]**

- A. length
- B. number
- C. volume
- D. weight

**Correct Answer: D**

Explanation:

~ mild steel sections, used to fix or hold the frame to the opening.

---

**70. A bill of quantity consists of**

[Civil Er. 2070/11/10 Highway]

- A. item rate
- B. description of item
- C. quantity
- D. all of the above

**Correct Answer: D**

---

**71. The most reliable estimate is**

[Civil Er. 2070/11/10 Highway]

- A. cubic rate estimate
- B. detailed estimate
- C. preliminary estimate
- D. plinth area estimate

**Correct Answer: B**

---

**72. The density of cement is generally taken as**

[Civil Er. 2070/11/11 Highway, Civil Er. 2070/11/10 Highway]

- A. 1640 kg/m<sup>3</sup>
- B. 1540 kg/m<sup>3</sup>
- C. 1440 kg/m<sup>3</sup>
- D. 1340 kg/m<sup>3</sup>

**Correct Answer: C**

---

**73. In a rate analysis, the number of bricks per cubic meter is taken as**

[Civil Er. 2070/11/11 Highway, Civil Er. 2070/11/10 Highway]

- A. 250

- B. 2000
- C. 500
- D. 100

**Correct Answer: C**

---

**74. In long and short wall method of estimation, the length of long wall is the centre to centre distance between the walls and**

**[Civil Er. 2070/11/11 Highway, Civil Er. 2070/11/10 Highway]**

- A. breadth of the wall
- B. one fourth breadth of the wall on each side
- C. half breadth of the wall on each side
- D. none of the above

**Correct Answer: C**

---

**75. Original cost of property minus depreciation is**

**[Civil Er. 2070/11/11 Highway, Civil Er. 2070/11/10 Highway]**

- A. rateable value
- B. book value
- C. Obsolescence value
- D. salvage value

**Correct Answer: B**

---

**76. The approximate weight of one cubic meter of mild steel is**

**[Civil Er. 2070/11/08 General]**

- A. 7850 kg
- B. 2400 kg
- C. 1500 kg

D. 6850 kg

**Correct Answer: A**

---

**77. In a detailed estimate, the provision for contingencies is, usually**  
[Civil Er. 2070/11/08 General]

- A. 1%
- B. 3 to 5%
- C. 10%
- D. 12 to 15%

**Correct Answer: B**

---

**78. Annual rent is generally fixed at**  
[Civil Er. 2070/11/08 General]

- A. 1 to 2% of value of building
- B. 2 to 5% of value of building
- C. 5 to 10% of value of building
- D. 10 to 25% of value of building

**Correct Answer: C**

---

**79. The main factor to be considered while preparing a detailed estimate is**  
[Civil Er. 2070/11/08 General]

- A. quantity of materials
- B. transportation of materials
- C. site location and local labor charges
- D. all of the above

**Correct Answer: D**

---



80. For 100 m<sup>2</sup> concrete (1:2:4), 4 cm thick floor the quantity of cement required is

[Civil Er. 2070/11/08 General, Civil Er. 2070/11/12 B & Arch]

- A. 0.9 m<sup>3</sup>
- B. 0.94 m<sup>3</sup>
- C. 0.98 m<sup>3</sup>
- D. 1.00 m<sup>3</sup>

**Correct Answer: B**

Explanation:

Wet volume = area × thickness = 100 × 0.04 = 4 m<sup>3</sup>

add 10 % for unevenness of base concrete and loss = 4.4 m<sup>3</sup>

Dry volume of concrete = 1.5 - 1.54 times wet volume

∴ Required dry volume = 1.5 × 4.4 = 6.6 m<sup>3</sup>

Now,

Cement quantity = Dry volume / sum of ratios = 6.6/7 = 0.94 m<sup>3</sup>

---

81. The measurement is made in sq meter in case of

[Civil Er. 2070/11/08 General]

- A. honey comb brickwork
- B. brick flat solving
- C. half brick walls
- D. all of the above

**Correct Answer: D**

---

82. The bill of quantities does not contain

[Civil Er. 2071/11/16 Irrigation]

- A. item description
- B. item wise rate of employer
- C. item wise rate of contractor
- D. unit of items

**Correct Answer: B**

Explanation:

~ Bill of quantity (BoQ) is a document that provides a detailed list of materials, labor, and equipment required for a construction project, along with their estimated costs. The BoQ is used as the basis for procurement and pricing, as well as for tracking and monitoring the project's progress and costs.

The format of a Bill of Quantities (BoQ) can vary depending on the complexity of the project and the specific requirements of the client. However, a typical BoQ typically includes the following elements:

- Introduction: This section provides an overview of the project, including the scope of work, the project location, and the date of the BoQ.
- Items and descriptions: This section lists all the items required for the project, including materials, labor, and equipment, along with a description of each item.
- Units of measurement: This section defines the units of measurement used for each item, such as square meters, linear meters, or pieces.
- Quantities: This section provides the estimated quantity of each item required for the project.
- Unit prices: This section provides the estimated cost for each unit of measurement for each item (to be filled by contractor).
- Total prices: This section provides the total cost for each item, calculated by multiplying the quantity by the unit price.
- Summary: This section provides a summary of the total cost for the project, including a breakdown of the costs for each item.

- Terms and conditions: This section provides the terms and conditions for the project, including payment terms, warranties, and other important information.

---

**83. The area is measured correct to the nearest**

**[Civil Er. 2070/11/08 General]**

- A. 0.01 sq m
- B. 0.02 sq m
- C. 0.03 sq m
- D. 0.04 sq m

**Correct Answer: A**

---

**84. The specification of work includes**

**[Civil Er. 2070/11/08 General]**

- A. quality and quantity of materials
- B. technology of work
- C. measurement of work
- D. all of the above

**Correct Answer: D**

---

**85. In lying water and sewer lines, dimensions shall be taken to nearest**

**.....m.**

**[Civil Er. 2069/10/08 Sanitary]**

- A. 0.01
- B. 0.02
- C. 0.03
- D. 0.04

**Correct Answer: A**

86. The cross-sectional area is \_\_\_\_\_ and mm<sup>2</sup> weight is \_\_\_\_\_ in kg/m of 16 mm dia. reinforcement bar is respectively

[Civil Er. 2069/10/08 Sanitary]

- A. 201, 1.85
- B. 210, 1.58
- C. 201, 1.58
- D. 210, 2.10

**Correct Answer: C**

Explanation:

$$Area = \frac{\pi D^2}{4}$$

$$Unit\ weight = \frac{D^2}{162}$$

87. Purpose of valuation is

[Civil Er. 2069/10/08 Sanitary]

- A. buying/selling of property
- B. for taxation
- C. for security of loans/mortgage
- D. all of the above

**Correct Answer: D**

Explanation:

Purposes

- Buying or selling property
- Taxation
- Rent Fixation
- Security of loans or Mortgage
- Compulsory acquisition



- Insurance, Betterment charges, etc.

---

**88. In Corrugated Galvanized Iron sheets, the pitch of the corrugation is measured, usually, as**

**[Civil Er. 2069/10/08 Sanitary]**

- A. 65 mm
- B. 100 mm
- C. 75 mm
- D. 150 mm

**Correct Answer: C**

---

**89. Which of the following is not a common size of reinforcement bars in building work?**

**[Civil Er. 2069/10/08 Sanitary]**

- A. 16 mm
- B. 20 mm
- C. 25 mm
- D. 32 mm

**Correct Answer: D**

---

**90. The unit of measurement for concrete work in RCC is**

**[Civil Er. 2069/10/02 General]**

- A. cu.m.
- B. sq.m.
- C. meter
- D. sq.cm.

**Correct Answer: A**

**91. Detail specifications of a particular projects give**

**[Civil Er. 2069/10/02 General]**

**[Civil Er. 2071/11/16 Irrigation]**

- A. qualities of materials
- B. execution and workmanship of work
- C. both A) and B)
- D. none of the above

**Correct Answer: C**

Explanation:

~ It specifies the qualities and quantities of materials, proportion of mortar, workmanship, method of preparation and execution and the methods of measurement.

---

**92. Skirting used in terrazzo floor is measured in**

**[Civil Er. 2069/10/02 General]**

- A. running metre
- B. square metre
- C. cubic metre
- D. kilogram

**Correct Answer: A**

---

**93. An estimate is**

**[Civil Er. 2069/10/02 General]**

- A. calculation of quantities required in the construction of a work
- B. computation of expenditure likely to be incurred in the construction of a work
- C. both A) and B)
- D. none of the above

**Correct Answer: C**

**94. In government norms for rate analysis, the amount of work charged establishment costs is a % of total rate; where 'a' =**  
[Civil Er. 2069/10/02 General]

- A. 1 %
- B. 1.5 %
- C. 2.5 %
- D. 5 %

**Correct Answer: B**

---

**95. Actual cost of any structure known**  
[Civil Er. 2069/10/02 General]

- A. after detailed estimate
- B. after design
- C. after drawing
- D. after completion of work

**Correct Answer: D**

---

**96. Who is the Chairperson of district level construction wages fixation committee in Nepal?**  
[Civil Er. 2069/11/08 Irrigation]

- A. Local Development Officer
- B. Chief District Officer
- C. Chief of District Technical Office
- D. None of the above

**Correct Answer: B**

---

**97. Detailed estimate is accompanied with**

[Civil Er. 2069/11/08 Irrigation]

[Civil Er. 2071/11/14 Hydropower]

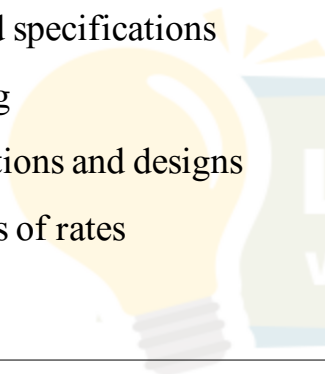
- A. rate analysis
- B. drawing, design and calculation.
- C. general specification
- D. all of the above

**Correct Answer: D**

Explanation:

~ Detailed estimate is accompanied with:

- Report
- General specifications
- Detailed specifications
- Drawing
- Calculations and designs
- Analysis of rates



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**98. Salvage value of any structure is**

[Civil Er. 2069/11/08 Irrigation]

- A. more than the scrap value
- B. less than the scrap value
- C. equal to scarp value
- D. none of the above

**Correct Answer: A**

Explanation:

~ As, salvage value represents the potential resale or reuse value of an asset after it has been fully used, which could include parts or components that are still valuable. In contrast, scrap value only reflects the worth of the raw materials that can be sold for

recycling or disposal, which is typically lower.

---

**99. The main purpose of rate analysis is**

**[Civil Er. 2069/11/08 Irrigation]**

**[Civil Er. 2071/11/14 Hydropower]**

- A. to find actual cost per unit items
- B. to find economic use of materials
- C. both A) and B)
- D. none of the above

**Correct Answer: C**

---

**100. The approximate weight of one cubic meters of mild steel is**

**[Civil Er. 2069/11/08 Irrigation]**

- A. 1 ton
- B. 2.4 ton
- C. 7.85 ton
- D. 8.85 ton

**Correct Answer: C**

---

**101. The overhead and profit claimed by contractor to client is**

**[Civil Er. 2069/10/06 Highway]**

- A. included in materials only
- B. separate item
- C. included in labours only
- D. included in rate analysis

**Correct Answer: D**

---

102. The volume of earthwork in excavation in foundation is measured in  
[Civil Er. 2069/10/06 Highway]

- A.  $m^3$
- B.  $m^2$
- C. trips of excavated materials
- D. KN

Correct Answer: A

---

103. While preparing an estimate the percentage added on account of physical contingencies, as per Public Procurement Regulation is  
[Civil Er. 2069/10/06 Highway]

- A. 2.5 %
- B. 5 %
- C. 10 %
- D. 15 %

Correct Answer: C



---

104. Which of the following columns is left blank in Bidding Document by the employing agency?

[Civil Er. 2069/10/06 Highway]

- A. volume of works
- B. unit of works
- C. unit rate of items
- D. description of items

Correct Answer: C

Explanation:

~ filled by contractors.

**105. Chairperson of construction material rate fixation committee is**  
[Civil Er. 2069/10/06 Highway]

- A. LDO
- B. CDO
- C. CDE
- D. DDC Chairperson

**Correct Answer: B**

---

**106. The quantity of wood for door and window shutters calculated in**  
[Civil Er. 2069/10/06 Highway]

- A. sq.m.
- B. cu.m.
- C. meter
- D. cu.ft.

**Correct Answer: A**

---

**107. Which of the following is not a part of estimating norms for rate analysis?**

[Civil Er. 2069/10/06 Highway, Civil Er. 2069/10/02 General, Civil Er. 2069/11/08 Irrigation,]

- A. labor cost
- B. material cost
- C. equipment cost
- D. taxes

**Correct Answer: D**

---

**108. The type of estimate used to calculate the cost of a building for**

**budgetary purpose is, in general**

**[Civil Er. 2069/10/06 Highway, Civil Er. 2069/10/02 General, Civil Er. 2069/11/08 Irrigation]**

- A. cubic content estimate
- B. detailed estimate
- C. preliminary estimate
- D. plinth area estimate

**Correct Answer: C**

Explanation:

~ For budgetary purposes, the preliminary estimate is usually the first step. It provides a financial baseline to guide early planning, decision making and approvals.

---

**109. Valuation is the process of determining**

**[Civil Er. 2069/10/06 Highway]**

- A. estimate for a work
- B. rate analysis for a work
- C. Current worth of an asset
- D. none of the above

**Correct Answer: C**

---

**110. The approximate percentage by volume of reinforcement for RCC chajja and sunshade is**

**[Civil Er. Irrigation 2068/11/12]**

- A. 0.5 %
- B. 1.0 %
- C. 1.5 %

D. 2.0 %

**Correct Answer: A**

---

**111. The value of the property (without being dismantled) at the end of the useful life period is known as**

**[Civil Er. Irrigation 2068/11/12]**

- A. scrap value
- B. salvation value
- C. junk value
- D. book value

**Correct Answer: B**

---

**112. The method of calculation of quantity is**

**[Civil Er. Irrigation 2068/11/12]**

- A. long wall-method
- B. short wall method
- C. long and short wall method
- D. none of the above

**Correct Answer: C**

---

**113. When not specified, the volume of steel in R.C.C: work is taken as**

**[Civil Er. Irrigation 2068/11/12]**

- A. 5 % to 6% of R.C.C. volume
- B. 0.6% to 1% of R.C.C. volume
- C. 2% to 4% of R.C.C. volume
- D. 4% to 6% of R.C.C. volume

**Correct Answer: B**

---

**114. Provisional sum is allocated for**

**[Civil Er 2068/12/07 B & Arch.]**

- A. additional payment for items included in the estimate
- B. types of works, whose details are not known, preparing the estimate
- C. payment to the contractor after work is completed satisfactorily
- D. payment to supervisory staff

**Correct Answer: B**

---

**115. Salvage value is the value of**

**[Civil Er 2068/12/07 B & Arch.]**

- A. cost of the property
- B. a property at the end of the utility period without dismantling
- C. both of the above
- D. none of the above

**Correct Answer: B**

---

**116. The contract in which the contractor is paid for the actual work performed and an agreed percentage or a fixed sum or a fluctuating fee for the work is termed as**

**[Civil Er 2068/12/07 B & Arch.]**

- A. unit rate contract
- B. lumpsum contract
- C. Cost plus percentage contract
- D. material and work contract

**Correct Answer: C**

---

**117. Demolition means**

[Civil Er 2068/12/07 B & Arch.]

- A. same as dismantle
- B. Breaking up the structure
- C. breaking up the structure with care
- D. all of the above

**Correct Answer: B**

Explanation:

~ while breaking up the structure with care is dismantle.

---

**118. The quantity of soling is obtained in**

[Civil Er 2068/12/07 B & Arch.]

- A.  $m^3$
- B. m
- C. lump-sum
- D.  $m^2$

**Correct Answer: D**



---

**119. The brickwork is measured in sq.m. in case of**

[Civil Er 2068/12/07 B & Arch.]

- A. honeycomb brickwork
- B. brick flat soling
- C. half-brick walls
- D. all of the above

**Correct Answer: D**

---

**120. The term 'valuation' in reference to Civil Engineering is the process of estimating the potential.....of an asset.**

[Civil Er. 2068/11/26 Highway]

- A. antique value
- B. face value
- C. book value
- D. market value

**Correct Answer: D**

---

**121. The amount provided in the estimate and bill of quantities for some specialized works to be done by the specialist firm, whose details are not known at the time of preparing estimates is called**

[Civil Er. 2068/11/26 Highway]

- A. prime cost
- B. day works
- C. contingencies
- D. provisional sum

**Correct Answer: D**

Explanation:

~ Similarly, a contingency of 3% to 5% of estimated cost is provided to cover the miscellaneous petty expenses which do not come under any item of work.

---

**122. The standard unit of measurement for expansion joint of a roof, wall or bridge. etc. is**

[Civil Er. 2068/11/26 Highway]

- A. Number
- B. RM
- C. Sq. M.

D. Cu. M.

**Correct Answer: B**

---

**123. The supplementary specification prepared and applied if the standard specification does not cover the requirement of works under a contract is called**

**[Civil Er. 2068/11/26 Highway]**

- A. general specification
- B. contract specification
- C. performance specification
- D. special specification

**Correct Answer: D**

---

**124. Specification of works is required only when the work is carried out by**  
**[Civil Er. 2068/11/26 Highway]**

- A. contractor
- B. muster roll
- C. users committee
- D. all the above

**Correct Answer: D**

Explanation:

~ Since, specifications describes the nature and class of the work, materials to be used in the work, workmanship, quantity of materials etc it is required for work carried by all.

---

**125. The damp proof course is measured in**  
**[Civil Er. 2068/11/26 Highway]**

[Civil Er. 2070/11/08 General]

[Civil Er. 2070/11/12 B & Arch]

- A. meters
- B. cu. m.
- C. sq.m.
- D. none of these

**Correct Answer: C**

Explanation:

Damp proof courses (DPC) is a prevention method applied in buildings walls and floors to the entry of moisture in the building.

Methods:

- Membrane damp proofing.
- Integral damp proofing.
- Surface treatment.
- Cavity wall construction.
- Guniting.
- Pressure grouting.



---

**126. An estimate is**

[Civil Er. 2068/11/14 Hydropower]

- A. probable cost of a work
- B. computed on actual basis
- C. possible without drawings
- D. made after completion of work

**Correct Answer: A**

---

**127. Actual cost of the work is obtained**

[Civil Er. 2068/11/14 Hydropower]

- A. after design
- B. after estimate
- C. after bid evaluation
- D. after completion of the work

**Correct Answer: D**

---

**128. What indicates for 80/100 in case of bitumen ?**

[Civil Er. 2068/11/14 Hydropower]

- A. ductility of bitumen
- B. softening point of bitumen
- C. penetration grade of bitumen
- D. penetration residue from loss on heating of bitumen

**Correct Answer: C**

---

**129. Which of the following is the most correct estimate ?**

[Civil Er. 2068/11/14 Hydropower]

- A. plinth area estimate
- B. cube rate estimate
- C. detailed estimate
- D. building cost index estimate

**Correct Answer: C**

---

**130. The lift of earthwork is taken as**

[Civil Er. 2068/11/03 General]

- A. 1 m

- B. 2 m
- C. 1..5 m
- D. 2..5 m

**Correct Answer: C**

---

**131. In ordinary type of building the cost of materials come to about  
[Civil Er. 2068/11/03 General]**

- A. 60% of total cost
- B. 40% of total cost
- C. 30% of total
- D. 20% of total cost

**Correct Answer: A**

Explanation:

In building construction, material costs typically account for 50% to 70% of the total construction budget. This percentage can vary based on factors such as building type, design complexity, and material choices. For instance, residential buildings might lean towards the lower end of this range, while commercial projects often approach or exceed 70% due to the use of specialized materials and finishes.

So we take average 60 % as answer.

---

**132. The value at the end of the utility period without being dismantled is called**

**[Civil Er. 2068/11/03 General]**

- A. Scrap value
- B. Salvage value

- C. Market value
- D. Book value

**Correct Answer: B**

---

**133. The nominal lead and lift allowed for the earthwork in excavation of the foundation are**

**[Civil Er. 2068/11/03 General]**

- A. 50 m and 2 m
- B. 30 m and 3 m
- C. 30 m and 1.5 m
- D. 20 m and 1.5 m

**Correct Answer: C**

---

**134. Purpose of the estimating is**

**[Civil Er. 2068/11/03 General]**

- A. to ascertain the required money for the work
- B. to invite tenders
- C. for the valuation of existing property
- D. for all of the above

**Correct Answer: D**

---

**135. The process of calculating cost and amount of materials, labour and equipments for a unit of work together with overhead cost of the contractor and profit is**

**[Civil Er. 2068/11/03 General]**

- A. estimating

- B. rate analysis
- C. abstract of cost
- D. bill of quantity

**Correct Answer: B**

---

**136. The measurement of steel grills is taken in term of**  
[Civil Er. 2068/11/03 General]

- A. area
- B. volume
- C. weight
- D. none of the above

**Correct Answer: C**

---

**137. The unit of the measurement for the 25 mm thick cement concrete 1:2:4 is**  
[Civil Er. 2068/11/14 Hydropower]

- A. m
- B.  $m^3$
- C.  $m^2$
- D. kg

**Correct Answer: C**

Explanation:

~ since thickness is specified, unit of measurement is in square meter.

---

**138. An estimate is**  
[Civil Er. 2068/11/14 Hydropower]

- A. probable cost of a work
- B. computed on actual basis
- C. possible without drawings
- D. made after completion of work

**Correct Answer: A**

---

**139. What indicates for 80/100 in case of bitumen ?**

**[Civil Er. 2068/11/14 Hydropower]**

- A. ductility of bitumen
- B. softening point of bitumen
- C. penetration grade of bitumen
- D. penetration residue from loss on heating of bitumen

**Correct Answer: C**

---

**140. Which of the following is the most correct estimate ?**

**[Civil Er. 2068/11/14 Hydropower]**

- A. plinth area estimate
- B. cube rate estimate
- C. detailed estimate
- D. building cost index estimate

**Correct Answer: C**

Explanation:

~ Plinth area estimate, cube rate estimate and building cost index estimate are preliminary estimate or an approximate estimate.

---

**141. Document supplementing the drawing to furnish information that are not covered in drawing and explaining the workmanship, and method of**

working to facilitate proper work execution at site is  
[Civil Er. 2068/11/14 Hydropower]

- A. tender document
- B. specification
- C. valuation
- D. bill of quantity

**Correct Answer: B**

Explanation:

~ Specifications depends upon,

- nature of the work
- quality of materials
- purpose for which the work is required
- strength of materials
- availability of materials etc.

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142. The thickness of 25 gauge sheet is  
[Civil Er. 2068/11/14 Hydropower]

- A. less than 1 mm
- B. 1 mm
- C. between 1 and 1.5 mm.
- D. 2 mm

**Correct Answer: A**

Explanation:

~ 0.531 mm.

---

143. An estimate is

[Civil Er. 2068/11/09 Sanitary]

- A. actual cost of construction of a project
- B. the probable cost arrived at before commencement of the project
- C. a random guess of project cost with similar project in the locality
- D. none of the above

**Correct Answer: B**

---

**144. A document containing detailed description of all items of the work (but their quantities are not mentioned) together with their current rates are called**

[Civil Er. 2068/11/09 Sanitary]

[Civil Er. 2068/11/03 General]

- A. tender
- B. schedule of rates
- C. analysis of rates
- D. abstract estimate

**Correct Answer: B**

Explanation:

- Tender - A tender refers to a written document that describes the details of the project and the work that it will involve. It is shared with the public to attract bids from qualified contractors and suppliers.
- Analysis of rates - The process of determining the unit rates of an item is termed as analysis of rates or rate analysis.

---

**145. Working out the exact quantities of various items of work known as**

[Civil Er. 2068/11/09 Sanitary]

[Civil Er. 2071/11/09 Highway]

- A. estimating
- B. mensuration
- C. quantity surveying
- D. valuation

**Correct Answer: C**

Explanation:

- Quantity Surveying - Working out the exact quantities of various items of work is known as quantity surveying. This process involves calculating the exact quantities of all the work involved in a project from start to finish.
- Estimation - Estimation is the process of forecasting the financial and other resources needed to complete a project within defined scope.
- Valuation - Valuation is the process of determining the present marketable cost or fair value of a building, property, or other engineering structures.
- Mensuration - Mensuration is the study of the calculation of geometric figures and their parameters, such as area, length, volume, surface area, and lateral surface area.

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**146. The essential requirements to prepare good estimate are  
[Civil Er. 2068/11/09 Sanitary]**

- A. fully dimensioned drawings to the scale
- B. detailed specifications
- C. schedule of rates
- D. all of above

**Correct Answer: D**

Explanation:

~ Estimating is the technique of calculating the various quantities and the expected expenditure to be incurred on a particular work or project.

Requirements for preparing an estimate:

- Drawings like plan, elevation and sections.
- Detailed specifications about workmanship & properties of materials etc.
- Standard schedule of rates.
- Mode of measurement
- Location of work site

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**147. The unit of measurement of brick soling is**

**[Civil Er. 2068/11/09 Sanitary]**

- A. meter
- B. square meter
- C. cubic meter
- D. lump sum

**Correct Answer: B**

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**148. The technique of finding fair price of an existing building or property is known as**

**[Civil Er. 2068/11/09 Sanitary]**

**[Civil Er. 2073/11/16 General]**

**[Civil Er. 2073/10/25 Sanitary]**

- A. estimation
- B. pricing
- C. valuation
- D. costing

**Correct Answer: C**

Explanation:

~ Valuation is the technique of estimating and determining the fair price or value of a property such as a building, a factory or other engineering structures of various types,

land etc.

Purposes

- Buying or selling property
- Taxation
- Rent Fixation
- Security of loans or Mortgage
- Compulsory acquisition
- Insurance, Betterment charges, etc.

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**149. The specific weight of reinforced cement concrete is  
[Civil Er. 2068/11/09 Sanitary]**

- A. 1200 kg/cubic meter
- B. 1500 kg/cubic meter
- C. 2500 kg/cubic meter
- D. 3000 kg/cubic meter

**Correct Answer: C**

Explanation:

~ As per IS 456:2000,

For reinforced cement concrete, the specific weight/density/unit weight is 2500 kg/m<sup>3</sup>.

For plain cement concrete, it is 2400 kg/m<sup>3</sup>.

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**150. Unit of measurement of reinforcement steel and iron work is taken in  
terms of**

**[Civil Er. 2068/11/09 Sanitary]**

- A. square meter

- B. cubic meter
- C. kilogram
- D. meter

**Correct Answer: C**

S.N.	Particulars of item	Units of Measurement	Units of payment
<b>Steel work</b>			
1	Steel reinforcement bars etc in R.C.C. and R.B. work	Quintal	per quintal
2	Bending, binding of steel, Reinforcement	Quintal	per quintal
3	Rivets, bolts, & nuts, Anchor bolts, Lewis bolts, Holding down bolts.	Quintal	per quintal
4	Iron hold fasts	Quintal	per quintal
5	Iron railing (height and types specified)	Quintal	per quintal
6	Iron grills	sqm	per sqm

Explanation:

~ The units of measurements for construction are mainly categorised for their nature, shape and size and for making payments to the contractor.

Note: A quintal is a metric unit of mass equal to 100 kilograms.