

Engineering Economics_Past Question Collection

**1. Engineers use following techniques while preparing the project appraisal
[Civil Er. Highway 2071]**

- A. discounted cash flows
- B. payback period
- C. rate of return on book value
- D. all

Correct Answer: D

Explanation:

a. Discounted Cash Flows (DCF):

A method of evaluating an investment by estimating its future cash flows and converting them into present value using a discount rate to account for time value of money.

b. Payback Period:

The time required for an investment to recover its initial cost from its generated cash inflows.

c. Rate of Return on Book Value (Accounting Rate of Return – ARR):

The percentage return calculated by dividing average annual accounting profit by the average book value of the investment.

2. Financial Closure of a project means

[Civil Er. Highway 2071]

- A. Signing the letter of interest to finance
- B. Signing of due diligence
- C. Signing for approval of loan and commitment to fund the project
- D. None

Correct Answer: C

Explanation:

A) Signing the letter of interest to finance

✓ Only shows intention, not final commitment

B) Signing of due diligence

✓ Due diligence is project evaluation, not funding approval

C) Signing for approval of loan and commitment to fund the project

✓ Loan officially approved

✓ Funds legally committed

✓ Financing agreements executed

✓ Project can proceed financially

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3. To critically examine the detailed feasibility study report of any project is to:

[Civil Er. General 2071]

A. review

B. appraise

C. check through readiness filter

D. all

Correct Answer: D

4. The objective of a cyclic replacement study is to determine the pattern of replacement that will minimize the :

[Building and Arch. 2068/12/07]

- A. maximum annual cost
- B. minimum annual cost
- C. interest rate
- D. average annual cost

Correct Answer: D

Explanation:

Objective of Cyclic Replacement Study: Identify the replacement pattern that minimizes average annual cost.

Key Concepts:

- **Economic Service Life (ESL):** The period that results in the lowest total annual cost.
- **Annual Worth (AW):** Evaluates costs to determine the optimal replacement time, aiming to minimize total annual ownership and operation costs.
- **Life Cycle Costs (LCC):** Considers all costs from acquisition to disposal, including initial, operating, maintenance, and salvage costs.
- **Replacement Cycles:** Focuses on minimizing the average cost over time rather than a single year's cost.

5. A project whose cash flow are more than capital invested for rate of return then NPV will be:

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

- A. Positive
- B. Dependent
- C. Negative
- D. Zero

Correct Answer: A

Explanation:

If a project's cash flows exceed the capital invested and meet the required rate of return, the Net Present Value (NPV) will be positive. This indicates that the investment is expected to generate more value than its cost, making it financially favorable. A positive NPV suggests that the present value of cash inflows surpasses the present value of cash outflows, resulting in a profitable investment.

6. What refers to the interest rate at which the present worth of the cash flow on a project is zero of the interest earned by a investment?

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

- A. Economic return
- B. Yield
- C. Rate of Return
- D. Return of investment

Correct Answer: C

Explanation:

The IRR is the interest rate at which the net present value (NPV) of all cash flows (both inflows and outflows) from a project or investment equals zero. It represents the effective compounded rate of return earned by the investment over its life, essentially the rate at which the project breaks even in present value terms.

Key Points:

- ✓ If the IRR exceeds the required rate of return (or hurdle rate), the project is considered financially viable.
- ✓ It is widely used in capital budgeting to evaluate the profitability of investments.
- ✓ Mathematically, it solves the equation:

$$\sum_{t=0}^n \frac{CF_t}{(1+IRR)^t} = 0$$

where

$$CF_t$$

= cash flow at time t.

In short, the IRR is the breakeven discount rate for a project's cash flows.

7. In the benefit cost analysis, benefit and cost have to be converted to:

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

- A. Present worth
- B. Annual worth
- C. Future worth
- D. All of these

Correct Answer: D

Explanation:

Answer: d. all of the above

In benefit-cost analysis, it is essential to convert all benefits and costs to a **common basis** to account for the **time value of money**. This ensures a fair comparison by evaluating them at the same point in time.

While **present worth** is the most commonly used method, **annual worth** and **future worth** are equally valid approaches as long as consistency is maintained.

The benefit-cost ratio remains unaffected by the choice of method (present, annual, or future worth) because they are mathematically equivalent when properly calculated.

Note: The choice of method depends on the analyst's preference or project requirements.

8. Engineering economics is mainly concerned with:

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

- A. IRR
- B. ERR
- C. B/C ratio
- D. Profit

Correct Answer: D

Explanation:

All of these except (d) profit are tools used in economic analysis of a project. While not the only core focus given the options we can say that the main focus of Engineering Economics is to maximize profit.

a. IRR (Internal Rate of Return)

- **Definition:** Discount rate making NPV of project cash flows zero.
- **Use:** Evaluates profitability; compares projects.
- **Decision Rule:** Accept if $IRR > \text{hurdle rate}$.
- **Pros:** Time value of money; intuitive percentage return.
- **Cons:**
 - Multiple IRRs possible for non-conventional cash flows.
 - Unrealistic reinvestment assumption.
 - Ignores project scale/duration.

b. ERR (External Rate of Return)

- **Definition:** Modified IRR with reinvestment at external cost of capital.
- **Use:** Fixes IRR's reinvestment flaw.
- **Calculation:**
 - Reinvest inflows at external rate.
 - Discount outflows at financing rate.
 - Solve rate equating terminal value to costs.
- **Pros:** Single solution; realistic rates.
- **Cons:** Requires choosing external rate.

c. B/C Ratio (Benefit-Cost Ratio)

- **Definition:** $PV \text{ of benefits} \div PV \text{ of costs}$.
- **Use:** Prioritizes projects (common in public sectors).
- **Decision Rule:** Accept if $B/C > 1.0$.
- **Pros:** Considers time value & non-monetary benefits.



- **Cons:** Subjective valuation; ignores project scale.

d. Profit

- **Definition:** Financial gain (Revenue – Total Costs).
- **Types:**
 - Gross Profit: Revenue – COGS
 - Operating Profit: Gross Profit – Operating Expenses
 - Net Profit: Operating Profit – Taxes/Interest
- **Use:** Short-term financial performance metric.
- **Pros:** Simple absolute value.
- **Cons:** Ignores time value; accounting manipulation risks.

9. Net Present Value (NPV) is used to assess.....

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

- A. Inflation rate
- B. Project profitability overtime
- C. Historical costs
- D. Market demand

Correct Answer: B

Explanation:

Net Present Value (NPV) is used to assess project profitability.

Explanation:

- NPV is a core concept in finance that helps determine the present value of a future stream of cash flows, considering the time value of money.
- It's a crucial tool for evaluating the profitability of investments or projects.
- By calculating the NPV, businesses can decide whether a project is likely to generate returns that exceed the initial investment cost.

Why other options are incorrect:

- **Inflation rate:** While inflation can impact the NPV calculation, it's not the primary purpose of NPV analysis.
- **Historical costs:** NPV focuses on future cash flows, not past expenses.

- **Market demands:** NPV doesn't directly assess market demand, although market demand is a factor that influences future cash flows, which are considered in the NPV calculation.

Key Points:

- A positive NPV suggests that the project is expected to be profitable.
- A negative NPV indicates that the project is likely to result in a loss.
- NPV is influenced by factors such as the discount rate, the timing of cash flows, and the magnitude of cash flows.

10. What does the term "sunk cost" refer to in engineering economics?

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

- A. Costs that will occur in the future
- B. Costs that are recoverable if a project is abandoned
- C. Costs that have already been incurred and cannot be recovered
- D. Costs that are variable and can change over time

Correct Answer: C

Explanation:

Answer: c. Costs that have already been incurred and cannot be recovered

Explanation:

- **Definition of Sunk Cost:** A sunk cost is a cost that has already been incurred and cannot be recovered, regardless of future outcomes or decisions.
- **Importance in Decision-Making:** Sunk costs are ignored in future decision-making because they remain constant irrespective of the choice made.
- **Example:** Money spent on advertising campaigns that failed, research and development for abandoned products, purchase of specialized equipment for discontinued projects, costs for initial design and feasibility studies, tuition fees for dropped courses, non-refundable tickets for canceled events, money spent on home renovations for a house to be sold, development costs for removed software features.

Why other options are incorrect?

- **a. Costs that will occur in the future:** These are future costs, not sunk costs as they haven't been incurred yet.
- **b. Costs that are recoverable if a project is abandoned:** Recoverable costs are salvageable and not classified as sunk costs.
- **d. Costs that are variable and that can change over time:** Variable costs depend on factors like production volume and can change.

Sources:

- Blank, L., & Tarquin, A. (2018). *Engineering Economy*: "Sunk costs are historical costs that cannot be changed by any decision made now or in the future."
- Park, C. S. (2016). *Contemporary Engineering Economics*: "Sunk costs are irrelevant for future economic decision-making since they do not vary with the choice among alternatives."

11. What does the term 'inflation' refer to in engineering economics?

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

- A. The decrease in purchasing power of money over time
- B. The increase in purchasing power of money over time
- C. The fluctuation in exchange rates between currencies
- D. The change in interest rates for borrowing money

Correct Answer: A

Explanation:

Inflation

Inflation is the rate at which the general price level of goods and services in an economy increases over a specific period, leading to a decrease in the purchasing power of money.

Key Points:

- Measured by indices like the Consumer Price Index (CPI) or Whole Sale Price Index (WPI). **Note that in tendering and contract works related to civil we mostly prefer WPI for inflation adjustment.**
- Moderate inflation is normal in a growing economy, but hyperinflation or deflation

can be problematic.

- Caused by factors like increased demand (demand-pull inflation), rising production costs (cost-push inflation), or excessive money supply.

Related Economic Concepts:

- **Deflation:**

The opposite of inflation, where the general price level decreases over time, increasing the purchasing power of money. Often leads to reduced consumer spending and economic stagnation.

- **Disinflation:**

A reduction in the rate of inflation over time, but prices still increase at a slower pace. Indicates an economy is stabilizing without falling into deflation.

- **Stagflation:**

A rare situation where inflation and unemployment rise simultaneously while economic growth slows. Caused by supply shocks or poor economic policies.

- **Hyperinflation:**

Extremely rapid and uncontrolled inflation, often exceeding 50% per month. Like in many African countries like Venezuela where people had to go with millions of money to buy a simple thing like coffee. Commonly occurs during economic collapse or political instability.

- **Monetary Policy:**

Central banks use tools like interest rates and money supply control to manage inflation. Higher interest rates reduce inflation by decreasing spending and borrowing.

- **Cost of Living:**

The amount of money needed to maintain a certain standard of living, directly influenced by inflation. Higher inflation increases the cost of living.

- **Purchasing Power Parity (PPP):**

A theory that compares the relative value of currencies based on the price of a standard basket of goods in different countries. Indicates the impact of inflation on international trade.

12. Capitalized cost of a project is also known as.....

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

- A. Infinite cost
- B. Life cycle cost
- C. Life cost
- D. Project cost

Correct Answer: B

Explanation:

✓ The capitalized cost of a project is synonymous with life cycle cost, which encompasses all costs associated with a project from its inception (planning/design) to its decommissioning ("cradle to grave"). This includes direct and indirect expenses such as construction, maintenance, and operational costs over the asset's useful life.

13. The total cost of construction including cost of land is termed as

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

- A. Capital cost
- B. Rateable value
- C. Book value
- D. Market value

Correct Answer: A

Explanation:

Answer:

a. **Capital cost**

Explanation:

Capital cost refers to the total expenditure required to construct a building, including the cost of land, construction materials, labor, and other associated costs. It represents the full investment made to develop a property and is often used in project planning and budgeting.

● **b. Rateable value:** Refers to the value assigned to a property for the purpose of

calculating property taxes, particularly in the UK. It is not the total cost of construction.

- **c. Book value:** Refers to the value of an asset as recorded on the balance sheet, taking depreciation into account. It does not represent the total cost of construction.
- **d. Market value:** Refers to the price at which an asset can be bought or sold in the open market, influenced by factors like location and demand. It does not represent the cost of construction including land.

14. The original investment less the depreciation for the period of existence is [2073/11/2 वि.एण्ड आ.]

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

Correct Answer: D

Explanation:

Answer:

d. Book Value

Book Value refers to the original cost of an asset minus accumulated depreciation over its existence period. It reflects the asset's current accounting value.

- **Formula:** $\text{Book Value} = \text{Original Cost} - \text{Accumulated Depreciation}$
- **Example:** A Rs. 50,000 machine with Rsm 30,000 depreciation has a book value of Rs. 20,000.
- **Purpose:** Shows net asset value on balance sheets.

Why Other Options Are Incorrect

a. Salvage Value

- Estimated residual value at the *end* of an asset's life.

b. Scrap Value

- Same as salvage value (used for assets sold as scrap कवाडीमा दिदा लाग्ने भाउ). But scrap

value can be negative. Eg: incase of old building the owner might have to pay more to dismantle and dump it.

- Does not account for depreciation over time.

c. Annuity

- A financial product with periodic payments (e.g., pensions).
- Unrelated to asset valuation or depreciation.

References

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15. The financial analysis helps to judge:

[2073/11/2 वि.एण्ड आ.]

- A. The operational efficiency of the firm
- B. The financial position of the firm.
- C. Both (A) and (B)
- D. None of the above

Correct Answer: C

16. The ratio of current assests to current liabilities is known as

[2073/11/2 वि.एण्ड आ.]

- A. Liquidity ratio
- B. Current ratio
- C. Acid test ratio
- D. Debts ratio

Correct Answer: B

Explanation:

The ratio of **current assets to current liabilities** is known as the **current ratio**. It is a type

of liquidity ratio.

- **Current assets:** Resources that can be converted to cash within a year (e.g., cash, accounts receivable, inventories).
- **Current liabilities:** Debts and obligations due within a year (e.g., accounts payable, dividends payable).

The current ratio indicates a company's ability to meet short-term obligations. A ratio of **2 to 3** is common. A higher ratio means better short-term financial health.

Formula:

Current Ratio = Current Assets / Current Liabilities

Other Terms

Liquidity Ratio: Assesses a company's ability to meet short-term obligations.

- Measures how easily assets convert to cash to cover liabilities.
- Used by creditors and investors to gauge financial health.
- Examples: **Current ratio** and **Quick ratio, Cash Ratio**.

Acid Test Ratio (Quick Ratio): A stricter liquidity measure than the current ratio.

- Formula: $(\text{Current Assets} - \text{Inventories}) / \text{Current Liabilities}$.
- Excludes inventories as they are less liquid.
- Indicates ability to meet short-term obligations without selling inventory.
- A ratio of **1.0** is generally considered strong.

Cash Ratio: The most conservative liquidity measure. also known as Cash Asset Ratio or Absolute Liquidity Ratio.

- Formula: $\text{Cash and Cash Equivalents} / \text{Current Liabilities}$
- Indicates ability to cover short-term debts using only cash or cash equivalents.
- A ratio of **1 or greater** is considered financially healthy.

Debt Ratio: Measures how much of a company's assets are financed by debt. Not liquidity ratio.

- Formula: $\text{Total Liabilities} / \text{Total Assets}$.
- Higher ratio = more reliance on debt, higher financial risk.
- A ratio **below 20%** suggests strong financial stability.
- Related metric: **Debt-to-Equity Ratio** (Long-term Debt / Equity).

17. The minimum value of NPV for selection of an Engineering Project

should be:

[2073/11/2 वि.एण्ड आ.]

- A. One
- B. More than one
- C. Zero
- D. Ten

Correct Answer: C

Explanation:

Minimum Net Present Value (NPV) for Project Selection: The NPV of an engineering project should be greater than zero for it to be considered viable. Given the options it has to be at least 0.

Key Points:

- **Positive NPV as a Criterion:** Indicates that the project's cash inflows exceed its outflows, making it a profitable investment.
- **Accept/Reject Decision:**
 - **NPV > 0:** Accept the project.
 - **NPV = 0:** Indifference in decision-making.
 - **NPV < 0:** Reject the project.
- **Minimum Acceptable Return:** A positive NPV means the project exceeds the Minimum Attractive Rate of Return (MARR), which is the benchmark return required for investment.
- **Independent Projects:** All independent projects with $NPV \geq 0$ should be selected.
- **Mutually Exclusive Alternatives:** Among competing projects, the one with the highest NPV should be selected.
- **Reinvestment Assumption:** NPV analysis assumes surplus cash is reinvested at the MARR.

Conclusion: A project with a minimum $NPV > 0$ is considered economically viable and should be selected, assuming all other factors are equal.

18. In benefit-cost analysis, benefits and costs have to be converted to

[2073/11/2 वि.एण्ड आ.]

- A. Present worth
- B. Future worth
- C. Annual worth
- D. All of the above

Correct Answer: D

19. In economics, the change in total cost that arises when the quantity produced changes by one unit is called:

[Civil Er. 2073/10/25 Sanitary]

- A. Variable cost
- B. Added cost
- C. Marginal cost
- D. Cost without profit

Correct Answer: C

20. The difference between actual cost of the project with the targeted cost is called,

[Civil Er. 2073/10/25 Sanitary]

- A. Variance
- B. Loss
- C. Profit
- D. All of the above

Correct Answer: A

21. Benefit cost ratio is

[Civil Er. 2073/10/25 Sanitary]

- A. Directly proportional to discount rate
- B. Inversely proportional to discount rate
- C. No any relation with discount rate
- D. All of the above

Correct Answer: B

22. According to the law of supply and demand of the price of goods increases then the demand of goods,
[Civil Er. 2073/10/25 Sanitary]

- A. Increases
- B. Decreases
- C. Remains constant
- D. All of the above

Correct Answer: B

23. The sunk cost includes
[Civil Er. 2073/10/25 Sanitary]
[Civil Er. 2073/11/16 General]
[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. An investment that cannot be retrieved
- B. An unrecovered balance
- C. A past expenditure
- D. All of the above

Correct Answer: D

Explanation:

~ Examples of sunk costs include salaries, insurance, rent, nonrefundable deposits, equipment or repairs.

24. Engineering economics is mainly concerned with
[Civil Er. 2073/10/25 Sanitary]

- A. IRR
- B. ERR
- C. B/C ratio
- D. Profit

Correct Answer: D

25. Costs that are not borne by the parties to the economic transaction are called:

[Civil Er. 2073/10/25 Sanitary]

- A. Externalities
- B. Internalities
- C. Remote controlled costs
- D. Invisible costs

Correct Answer: A

26. If P is principal amount, i is the rate of interest and n is the number of periods in years, then the interest factors is:

[Civil Er. 2073/11/16 General]

- A. $(1+ni)$
- B. $(ni-1)$
- C. ni
- D. None of the above

Correct Answer: A

27. Marginal cost is

[Civil Er. 2073/11/16 General]

- A. The cost of producing an additional unit of a product
- B. Same the opportunity cost
- C. Equal to marginal revenue minus variable cost
- D. Equal to marginal revenue minus opportunity cost

Correct Answer: A

28. The benefit cost ratio is

[Civil Er. 2073/11/16 General]

- A. Directly proportional to discount rate
- B. Inversely proportional to discount rate
- C. Is not related with discount rate
- D. Superior to all other methods

Correct Answer: B

29. The financial analysis helps to judge

[Civil Er. 2073/11/16 General]

- A. The operational efficiency of the firm
- B. The financial position of the firm
- C. Both (A) and (B)
- D. Neither (A) nor (B)

Correct Answer: C

30. The annuity which refers to a debt payment for recovering the initial amount or capital in equal periodical payments, is known as

[Civil Er. 2073/11/16 General] [2073/11/2 वि.एण्ड आ.]

- A. Present worth Annuity
- B. Sinking fund annuity
- C. Compound annuity
- D. Capital recovery annuity

Correct Answer: D

Explanation:

- Present worth annuity - current value of a series of future payments from an annuity, given a specified rate of return, or discount rate. Higher the discount rate, the lower the present value of the annuity.
- Sinking fund annuity - financial savings account that uses regular payments to accumulate funds to meet a future goal.
- Compound annuity - It is financial product that involves a series of equal payments made at regular intervals, where the interest earned on these payments is compounded over time.

31. Current assets less inventories divided by current liabilities is known as [Civil Er. 2073/11/16 General]

- A. Liquidity ratio
- B. Current ratio
- C. Acid-Test (or Quick) ratio
- D. Debts ratio

Correct Answer: C

Explanation:

- ~ The acid test ratio measures an organization's ability to fund its short-term financial obligations through its most liquid assets.
- A low quick ratio indicates an organization may be slow in paying its obligations. higher the ratio, the more liquid the organization.

Similarly, current ratio is the ratio between current assets and current liabilities.

Current assets are those that can be converted to cash within a year; typically, cash, marketable securities, inventory, and accounts receivable while current liabilities are those that are due within a year; typically, accounts payable, accrued salaries and wages, outstanding lines of credit, and the principal of long-term loans.

32. Which of the following depreciation methods cannot have a salvage value of zero?

[Civil Er. 2073/11/16 General]

- A. Declining balance method
- B. Sinking fund method
- C. Straight line method
- D. SYD method

Correct Answer: A

Explanation:

A. Declining Balance Method:

- ✓ Depreciates a fixed percentage of the book value each year.
- ✓ accelerated depreciation system of recording larger depreciation expenses during the earlier years of an asset's useful life. It records smaller depreciation during its later years.
- ✓ Since the book value never fully reduces to zero with a fixed percentage, this method cannot reach a salvage value of exactly zero unless an adjustment is made in the final year.
- ✓ This technique is useful for recording the depreciation of computers, cell phones, and other high-technology products that rapidly become obsolete.



B. Sinking Fund Method:

✓ Designed to accumulate funds for asset replacement; the salvage value can be zero, as the depreciation expense is calculated separately from asset value.

C. Straight-Line Method:

✓ Allocates equal depreciation annually and can accommodate a zero salvage value.

D. Sum-of-Years-Digits (SYD) Method:

✓ Accelerates depreciation but can still handle a salvage value of zero by calculating total depreciation accordingly.

33. The CRF (ep) is known as [CRF(EP) 8% 7], where
[Civil Er. 2071/11/09 Highway]

- A. 8% is the rate of interest per year
- B. money is borrowed for $n=7$ years
- C. both A and B.
- D. Neither A nor B



Correct Answer: C

34. Cost-benefit studies are essential to

[Civil Er. 2071/11/09 Highway]

- A. assess the total cost of the work
- B. ascertain the relevant escalation in prices
- C. monitor the expenditure
- D. evaluate the viability and worth whileness of taking up the project.

Correct Answer: D

35. The fund gradually accumulated by periodic deposit for replacement of a structure at the end of its life cycle is:

[Civil Er. 2071/11/09 Highway]

- A. Sinking fund
- B. Capital fund
- C. revolving fund
- D. treasury

Correct Answer: A

36. "Financial closer" of a project means,

[Civil Er. 2071/11/09 Highway]

- A. Signing a letter of interest to finance
- B. Signing of due diligence
- C. Signing for approval of loan and commitment to fund the project
- D. None of the above

Correct Answer: C

37. The internal rate of return (IRR) is the interest rate at which the net present value of all the cash flows from a project investment equals to

[Civil Er. 2071/11/09 Highway]

- A. zero
- B. maximum
- C. minimum
- D. Bank interest rate

Correct Answer: A

Explanation:

Some Limitations of IRR

- ✓ Multiple IRRs: Projects with non-conventional cash flows (alternative positive and

negative) can indeed result in multiple IRRs, leading to ambiguity.

- ✓ Reinvestment Rate Assumption: IRR assumes that interim cash flows are reinvested at the same rate as the IRR itself, which is often unrealistic.
- ✓ Zero NPV Assumption: IRR focuses only on the breakeven rate, ignoring the magnitude of profit.

So IRR should not be the sole decision-making metric. Always pair it with NPV, payback period, and qualitative factors to assess the project holistically.

References

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38. 'With' and 'without' project alternatives are compared in the economic analysis in terms of
[Civil Er. 2071/11/09 Highway]

- A. construction and maintenance cost
- B. indirect and direct benefit
- C. both of the above
- D. None of the above

Correct Answer: C

39. Which one of the following is included in financial ratio of the firm?
[Civil Er. 2071/11/10 B & Arch.]

- A. Profitability ratio
- B. Liquidity ratio
- C. Turnover ratio
- D. All of the above

Correct Answer: D

40. The ratio obtained by dividing quick assets by current liabilities is called:
[Civil Er. 2071/11/10 B & Arch.]

- A. Turnover ratio
- B. Acid test ratio
- C. Solvency ratio
- D. None of the above

Correct Answer: B

41. The reduction in project time normally results in
[Civil Er. 2071/11/10 B & Arch.]

- A. Decreasing the direct cost and increasing indirect cost,
- B. Increasing the direct cost and decreasing the indirect cost
- C. Increasing the direct cost and indirect cost both
- D. Decreasing the direct cost and indirect cost both

Correct Answer: B

42. The Capital Recovery Factor (equal payments) of Capital Recovery Annuity is
[Civil Er. 2071/11/10 B & Arch.]

A. $\frac{i(l+i)^n}{(1+i)^n - 1}$

B. $\frac{(l+i)^n}{(1+i)^n - 1}$

C. $\frac{i(l+i)^n - 1}{(1+i)^n + 1}$

D. *None of the above*

Correct Answer: A

43. Liquidity ratios are used:

[Civil Er. 2071/11/10 B & Arch.]

- A. To measure a firms ability to meet shortcut obligations
- B. To compare short term obligations to short term resources available to meet these obligations
- C. To obtain such insight into the present cash solvency of the firm and the firms ability to remain solvent in the event of adversity.
- D. All of the above

Correct Answer: D

44. Internal Rate of Return should be:

[Civil Er. 2071/11/10 B & Arch.]

- A. Less than borrowing rate
- B. More than borrowing rate
- C. Equal to borrowing rate
- D. All of the above

Correct Answer: B

45. The economic indicator normally not used in project evaluation is:

[Civil Er. 2071/11/14 Hydropower]

- A. LRR
- B. BCR
- C. NPV
- D. Capitalized value

Correct Answer: A

46. Bankable projects means

[Civil Er. 2071/11/14 Hydropower]

- A. returns are very high
- B. risk factors are manageable
- C. simple and doable projects
- D. All of the above

Correct Answer: D

47. A project construction cost estimate includes:

[Civil Er. 2071/11/14 Hydropower]

- A. labour and material cost
- B. the equipment and overhead cost
- C. the profit of the contractor
- D. All of the above

Correct Answer: D

48. The amount of money whose annual interest at the highest prevailing rate will be equal to the net income from the property is termed as:

[Civil Er. 2071/11/14 Hydropower]

- A. annual income.
- B. capital cost
- C. years purchase
- D. capitalized value

Correct Answer: D

Explanation:

Capitalized Value:

- ✓ Refers to the present value of a property's net income based on a specific interest or capitalization rate.
- ✓ Represents the amount of money that, if invested at the prevailing rate of return, would generate the same net income as the property.

✓ Formula:

$$\frac{\text{Net Income}}{\text{Capitalization Rate (Interest Rate)}}$$

✓ Applications: Used in property valuation and real estate economics to estimate the value of income-generating assets.

Example:

If the net annual income from a property is Rs. 10,000 and the highest prevailing interest rate is 5% (0.05), the capitalized value is:

$$\text{Capitalized Value} = \frac{10,000}{0.05} = 200,000$$

This means the property is worth Rs. 200,000 based on its income potential.

49. Sensitivity analyses are sometimes confused with,
[Civil Er. 2071/11/14 Hydropower]

- A. cost benefit analysis
- B. subgroup analysis
- C. group analysis
- D. asset analysis

Correct Answer: A

Explanation:

~ Sensitivity analysis and cost benefit analysis are sometimes confused because both analyze decision outcomes, but sensitivity analysis focuses on variability and uncertainty, while cost-benefit analysis evaluates the overall value of a project.

50. Public projects must be good in
[Civil Er. 2071/11/14 Hydropower]

- A. Financial analysis
- B. Economic analysis
- C. cost benefit ratio
- D. all of the above

Correct Answer: D

51. In Cost Benefit Analysis, benefits and costs are expressed in
[Civil Er. 2071/11/14 Hydropower]

- A. percentage
- B. monetary terms
- C. kind
- D. ratio

Correct Answer: B

Explanation:

1. Core Principle of Cost-Benefit Analysis (CBA)

CBA requires **quantifying all benefits and costs in monetary terms**, even intangible or non-market impacts (e.g., environmental benefits, health outcomes). This allows for **direct comparison** and aggregation of diverse impacts into a single metric (e.g., Net Present Value or Benefit-Cost Ratio).

Reference:

- **OECD:** "Cost-benefit analysis involves the valuation of all relevant costs and benefits in monetary terms to assess whether the benefits outweigh the costs."
- **Boardman et al.:** "Monetization is essential to weigh trade-offs objectively. For example, the value of reduced air pollution is estimated in dollars to compare with infrastructure costs."

Why Other Options Are Incorrect?

- **a. Percentage:** Percentages (e.g., ROI) are **outputs** of CBA, not how costs/benefits are

expressed.

- **c. In Kind:** While impacts may be initially measured in physical units (e.g., lives saved, tons of CO₂ reduced), CBA requires converting these to monetary values for analysis.
- **d. Ratio:** The Benefit-Cost Ratio (BCR) is a **result** of CBA, but individual benefits and costs must first be monetized to calculate it.

Global Standards

- **World Bank and IMF:** Mandate monetary valuation in CBA for public projects to ensure efficient resource allocation.
- **HM Treasury (UK):** "*The Green Book*" requires all costs and benefits to be expressed in monetary terms, adjusted for inflation and discounted to present value.

52. A portion of the early income from the property has k to be set aside for reinstatement of capital is known as

[Civil Er. 2071/11/14 Hydropower]

- A. Sinking fund
- B. Management fund
- C. repair fund
- D. all of the above

Correct Answer: A

53. The minimum value of benefit-cost-ratio for the selection of any project should be:

[जनरल 2071/11/2]

- A. Less than one
- B. One
- C. Greater than one
- D. None of the above

Correct Answer: B

54. The wages of supervisors and material handlers are charged as

[जनरल 2071/11/2]

- A. Overhead cost
- B. Indirect labour cost
- C. Direct labour cost
- D. Office expenditure

Correct Answer: B

Explanation:

~ Indirect labour costs refers to wages and salaries paid to employees who support the production process but do not directly engage in making the product. These workers help manage or facilitate the work of direct laborers (those who directly produce the goods), but their work cannot be traced to any specific product.

Overhead Cost - This term encompasses all costs that are not directly tied to the production of goods but are necessary for the manufacturing process. Includes indirect labour cost, indirect material cost, utilities cost etc.

Note: While overhead cost is a broad category, indirect labour cost is a specific term.

55. Annuities involves

[जनरल 2071/11/2]

- A. All payments of equal amount
- B. A series of payment
- C. Payment at equal time intervals
- D. All of the above

Correct Answer: D

56. Donor funded projects are based on

[जनरल 2071/11/2]

- A. Priority of the government
- B. Priority of the government
- C. Good IRR
- D. All of the above

Correct Answer: D

57. In some of the road projects connecting the district headquarters are implemented even if its internal rate of return (IRR) is not satisfactory, because of

[जनरल 2071/11/2]

- A. pressure of interest groups
- B. Social need
- C. easy to implement
- D. Donor pressure

Correct Answer: B



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58. The cost that differs between alternatives is called,

[जनरल 2071/11/2]

- A. Common cost
- B. Variable cost
- C. Differential cost
- D. Opportunity cost

Correct Answer: C

Explanation:

- Common cost - refers to a cost that is shared by multiple alternatives or cost objects but cannot be traced directly to any one of them. For example, overhead costs that apply to multiple departments would be common costs.

- Differential cost - difference in cost between two or more alternatives. It shows how costs will change if a decision is made between different options.
- Variable cost - costs that change with the level of production or activity. For example, materials costs increase as more units are produced. However, variable costs do not necessarily differ between alternatives unless the production volumes are different.
- Opportunity cost - cost of the next best alternative that you forego when making a decision. While important in decision-making, opportunity cost does not directly refer to a cost difference between alternatives.

59. The annual periodic payment for repayment of the capital amount invested by the party is known as

[2071/11/16 इरिगेशन]

- A. capital cost
- B. capitalized value
- C. depreciation
- D. annuity

Correct Answer: D

60. Annual periodic payment for repayment of the capital amount invested over a definite period is:

[2071/11/16 इरिगेशन]

- A. interest certain
- B. annuity certain
- C. due interest
- D. due annuity

Correct Answer: B

61. Total cost of any project is the sum of
[2071/11/16 इरिगेशन]

- A. fixed and variable costs
- B. average and fixed costs
- C. both A and B
- D. None of the above

Correct Answer: A

Explanation:

Answer:

a. fixed cost and variable cost

Explanation:

- **Total Cost (TC) = Fixed Cost (FC) + Variable Cost (VC)** (as per standard cost accounting principles, e.g., Horngren's *Cost Accounting*).
- **Fixed Costs:** Costs that remain constant regardless of output (e.g., rent, salaries).
- **Variable Costs:** Costs that vary with production volume (e.g., raw materials, labor per unit).

Why Other Options Are Incorrect:

- **b. Average and fixed cost:** Average cost = Total Cost / Quantity. Adding it to fixed cost is nonsensical.
- **c. Both:** Invalid because option b is incorrect.
- **d. None:** Incorrect since option a is valid.

Related Key Concepts:

- **Marginal Cost (MC):** Cost of producing one additional unit. Eg: increasing one passenger in a bus has almost no marginal cost for the driver/owner since the cost is almost the same. So it has an almost 0 marginal cost.
- **Total Variable Cost (TVC):** Sum of all variable costs.
- **Cost Behavior:** Fixed costs are time-bound; variable costs are activity-driven.

Reference:

Supported by standard economics and managerial accounting texts (e.g., Mankiw's *Principles of Economics*).

62. In a benefit cost analysis the relation between the benefit and cost to make the project viable should be:

[2071/11/16 इरिगेशन]

- A. $B < C$
- B. $B - C > 1$
- C. $B/C > 0$
- D. $B > C$

Correct Answer: D

63. The state where economic forces are balanced is known as

[2071/11/16 इरिगेशन]

- A. loss potential
- B. economic equilibrium
- C. profit potential
- D. demand biasness

Correct Answer: B

64. Net present value compares the present value of money today to the present value of money in the

[2071/11/16 इरिगेशन]

- A. future
- B. end of the project period
- C. past

D. beginning of the project

Correct Answer: A

Explanation:

~ Net Present Value (NPV) is the value of all future cash flows (positive and negative) over the entire life of an investment discounted to the present. In general, projects with a positive NPV are worth undertaking, while those with a negative NPV are not.

$$NPV = \sum_{t=0}^n \frac{C_t}{(1+r)^t}$$

65. The time value of money is the relation between:

[2071/11/16 इरिगेशन]

- A. time and capital
- B. fund and capital
- C. time and interest
- D. fund and interest

Correct Answer: C

Explanation:

Explanation:

The **time value of money (TVM)** describes how the value of money changes over time due to **interest**. A dollar today is worth more than a dollar in the future because of its earning potential.

Related Concepts:

- **Interest Rate:** Determines growth of money over time (e.g., 5% annual interest on \$100 → \$105 after 1 year).
- **Present Value (PV):** Current worth of future money: $PV = FV / (1 + r)^n$
- **Future Value (FV):** Value of money after time: $FV = PV \times (1 + r)^n$
- **Compounding:** Earning interest on interest (e.g., \$100 → \$110 → \$121 at 10% annually).

Why Other Options Are Incorrect:

- a. Time and capital: Misses role of *interest*.
- b. Fund and capital: Ignores *time* dimension.
- d. Fund and interest: Lacks link to *time*.

66. Public works must be of very good quality, because

[2071/11/16 इरिगेशन]

- A. it is paid in higher rate.
- B. projects are of higher priority
- C. users are general public and maintenance is not timely difficulty and costly
- D. all of the above

Correct Answer: D

67. Time value of Rs.100 invested for one year at 5% interest will be:

[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. Rs. 100
- B. Rs. 105
- C. Rs. 110
- D. Rs. 120

Correct Answer: B

68. The ratio obtained by dividing 'quick' assets by current liabilities is called:

[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. turnover ratio
- B. acid test ratio

- C. solvency ratio
- D. none of these

Correct Answer: B

Explanation:

Answer:

b. acid test ratio

Explanation

● **Acid Test Ratio (Quick Ratio):**

- Calculated as **Quick Assets (Cash, Marketable Securities, Accounts Receivable)** divided by **Current Liabilities**.
- Excludes less liquid assets like inventory and prepaid expenses.
- Measures a company's ability to meet short-term obligations without selling inventory.
- Term "acid test" originates from historical use of acid to test gold purity, implying a stringent assessment of liquidity.

Why Other Options Are Incorrect:

- **Turnover Ratio:** Measures efficiency (e.g., inventory turnover), not liquidity.
- **Solvency Ratio:** Evaluates long-term debt-paying ability, not short-term liquidity.

Related Concepts:

- **Current Ratio:** Includes all current assets (including inventory) divided by current liabilities.
- **Cash Ratio:** Strictest liquidity measure, using only cash and cash equivalents.
- **Liquidity vs. Solvency:** Liquidity focuses on short-term obligations, solvency on long-term financial health.

References:

-
-
-

69. Mostly used risk analysis technique in engineering economics is
[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. sensitivity analysis
- B. breakeven analysis
- C. scenario analysis
- D. monte-carlo simulation

Correct Answer: D

70. In economic analysis, a shift in the supply curve is said to take place due to:

[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. change in input prices
- B. technological progress
- C. level of competition in production
- D. all of the above

Correct Answer: D

Explanation:

Answer:

d. all

Explanation in Points:

- A **shift in the supply curve** occurs when factors other than the product's own price change the quantity supplied at all price levels.
- **a. Change in input price:** Higher input costs reduce supply (curve shifts left), while lower costs increase supply (shifts right).
- **b. Technological progress:** Improves production efficiency, lowering costs and increasing supply (shifts right).
- **c. Level of competition:** More producers increase market supply (shifts right), fewer producers decrease it (shifts left).

Related Concepts:

- **Movement vs. Shift:** A *movement along the curve* is caused by price changes; a *shift* results from external factors.
- **Other Shift Factors:** Government policies (taxes/subsidies), producer expectations, and natural disasters.

71. The benefit that is forgone by engaging the resource in a chosen activity instead of engaging the same resource in the Targone activity is known as:

[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. marginal cost
- B. opportunity cost
- C. incremental cost
- D. life cycle cost

Correct Answer: B

72. For the selection of any project, which criteria is followed?

[2070/11/12 बिल्डिंग एंड अर्किटेक्ट]

- A. net present value
- B. benefit cost ratio
- C. internal rate of return
- D. all the above

Correct Answer: D

73. Net present value is :

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. difference between cash inflows and cash outflows
- B. total of cash inflows and cash outflow

- C. only cash inflow
- D. none of the above

Correct Answer: A

74. If a is the base amount expenditure, b is the increase in the operation cost each year over a period of n years, the total cost of maintenance is:

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. $a + (n-1) b$
- B. $a + (n+1) b$
- C. $a + (n-1) b$
- D. $a \times (n-1) b$

Correct Answer: A

75. Ratio analysis of a construction firm is used for analysis by:

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. firm's management
- B. financial analysis
- C. share holders
- D. banks of the firm

Correct Answer: B

76. If P is principal amount, I is the interest rate per year, N is the number of periods in years, the interest amount is:

[2070/11/10 हाइवे & 2070/11/11 हाइवे & 2068/11/14 Hydro]

A. $P^N - P$

B. $P(1 + i)^N - 1$

$$C. P(1+i)^N - P$$

$$D. P(1+i) - 1$$

Correct Answer: C

77. The time value of money is considered in the:

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. internal rate of return (IRR) method
- B. present worth method
- C. future worth method
- D. all of the above

Correct Answer: D

78. The difference of discounted benefit, and cost is called:

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. benefit
- B. PV
- C. NPV
- D. none

Correct Answer: C

79. Inflation is normal phenomenon in which :

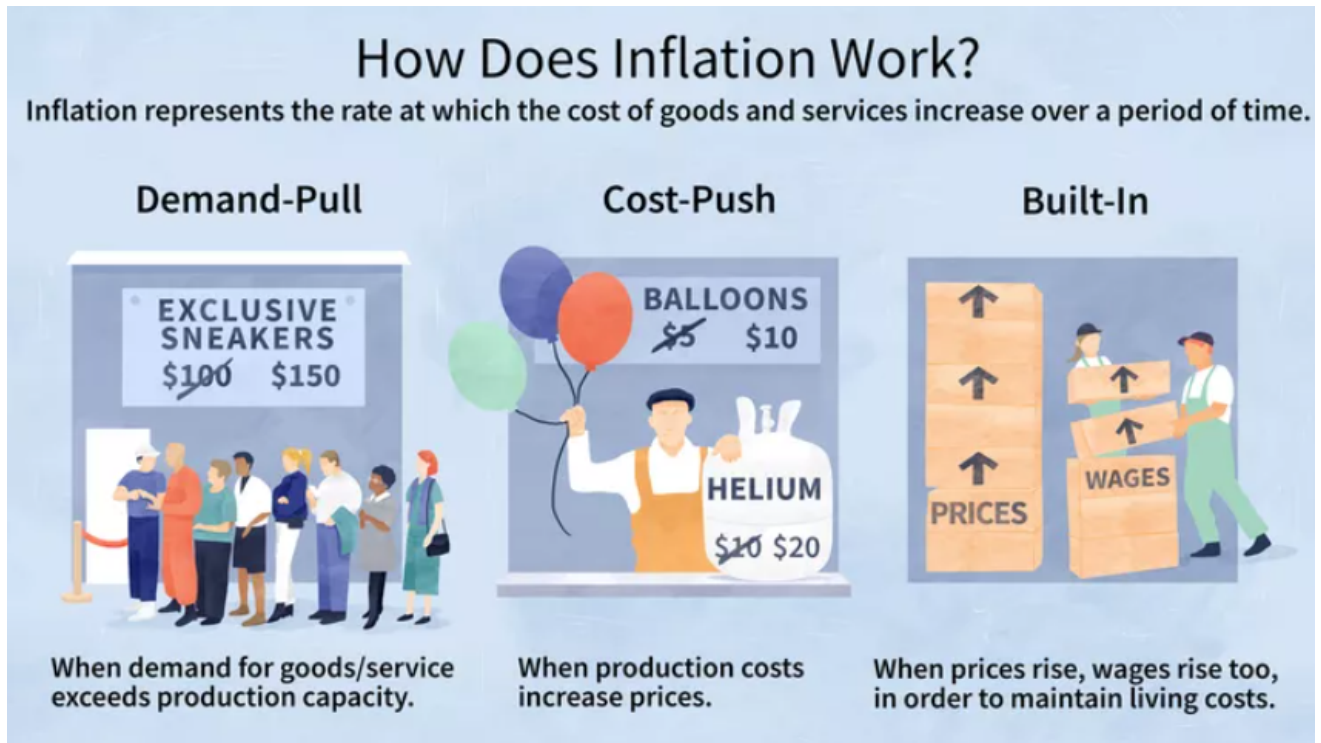
[2070/11/10 हाइवे]

[2069/10/8 स्यानिटरी]

- A. nominal price of object not changed
- B. nominal price of the object is decreased
- C. nominal price of the object is raised

D. none of above

Correct Answer: C



Explanation:

~ decrease in purchasing power.

Types:

- Demand-pull inflation
- Cost-push inflation
- Built-in inflation

80. Sensitivity-analysis-can-be-used to examine a project's viability when the following factor is changed:

[2070/11/10 हाइवे & 2070/11/11 हाइवे]

- A. capital investment
- B. annual expenses

- C. interest rate
- D. all of the above

Correct Answer: D

81. For the selection of any project the NPV should be:

[2070/11/8 जनरल]

- A. less than 0
- B. zero
- C. both of the above
- D. none of the above

Correct Answer: B

82. The key to profitable operation, for project cost control is:

[2070/11/8 जनरल]

- A. to keep the project cost within the cost budget and knowing when and where job costs are deviating
- B. to keep the project cost equal to original cost estimate.
- C. to keep the project cost equal to subsequent construction budget.
- D. none of the above

Correct Answer: A

83. Which among the following is NOT true about benefit cost analysis?

[2070/11/8 जनरल]

- A. costs and benefits must be converted to a common time base
- B. a public project is normally acceptable if the B-C ratio is at least one
- C. the analysis makes sure that the benefits are at least 10-20% more than the costs.
- D. the B-C ratio is a ratio of discounted benefits to discounted costs

Correct Answer: C

Explanation:

~ The B/C ratio does not make significant impact to public projects though they are subjected to economic analysis however the analysis does not make sure that the benefits are at least 10-20% more than the costs.

84. The decision rule for project acceptance is that:

[2070/11/8 जनरल]

- A. If $IRR > 0$
- B. If $IRR < MARR$
- C. If $IRR = 0$
- D. If $IRR \geq MARR$

Correct Answer: D

Explanation:

Here IRR - internal rate of return and MARR - minimum attractive rate of returns

85. The annuity which refer to a debt payment for recovering the initial amount or capital in equal periodic payments is known as:

[2070/11/8 जनरल]

- A. preset worth annuity
- B. sinking fund annuity
- C. compound annuity
- D. capital recover annuity

Correct Answer: D

86. The financial analysis helps to judge:

[2070/11/8 जनरल]

- A. the operational efficiency of the firm
- B. the financial position of the firm
- C. both of the above
- D. none of the above

Correct Answer: C

87. IRR is carried out for:

[2070/11/8 जनरल]

- A. evaluating the progress of the project
- B. evaluating the desirability of investment of projects
- C. evaluating the profit of project
- D. none of the above

Correct Answer: B

88. The benefit cost ratio of a project increases the attractiveness of project increases, minimum value of benefit cost ratio should be for acceptance of project.

[2069/10/8 स्यानिटरी]

- A. less than one
- B. equal to one
- C. greater than one
- D. all of the above

Correct Answer: B

89. For procurement of works up to 1 million, by which of the following method is to be considered?

[2069/10/8 स्यानिटरी]

- A. by sealed tender
- B. by direct negotiation
- C. by bidding
- D. by direct labour or direct negotiation

Correct Answer: B

90. Prime cost of a project includes:

[2069/10/8 स्यानिटरी]

- A. direct material cost
- B. direct labour cost
- C. direct expenses
- D. all of the above

Correct Answer: D

91. The ratio of current assets to current liabilities is known as:

[2069/10/8 स्यानिटरी]

- A. liquidity ratio
- B. current ratio
- C. B/C ratio
- D. profit

Correct Answer: B

92. Benefit-cost-ratio is the ratio given by :

Where, PVB = present value of total benefit

PVC = present value of total cost

FVB = future value of total benefit

FVC = future value of total cost

[2069/10/8 स्यानिटरी]

- A. PVB/PVC
- B. PVC/PVB
- C. FVB/FVC
- D. FVC/FVB

Correct Answer: A

93. A systematic process for combining opinions into a reasoned consensus is:

[2069/10/8 स्यानिटरी]

- A. consumer survey
- B. opinion of experts
- C. Delphi method
- D. group work

Correct Answer: C



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94. An investment project costs P. it is expected to have an annual net cash flow of 0.125P for 20 years. What is the project's payback period?

[2069/10/8 स्यानिटरी]

- A. 8 yrs
- B. 10 yrs
- C. 17 yrs
- D. 20 yrs

Correct Answer: A

95. The present value of an amount having future value of Rs. 800 after 4 years with an annual interest rate of 5% is equal to :

[2069/10/2 जनरल]

- A. 658.16
- B. 685.16
- C. 972.405
- D. 927.405

Correct Answer: A

Explanation:

The present value (PV) of Rs. 800 received after 4 years with an annual interest rate of 5% can be calculated using the formula:

$$PV = \frac{FV}{(1+r)^n}$$

Where:

$$FV = 800$$

(future value)

$$r = 5\% = 0.05$$

(annual interest rate)

$$n = 4$$

(number of years)

Step-by-Step Calculation:

1. Compute

$$(1 + r)^n$$



:

$$(1 + 0.05)^4 = (1.05)^4 = 1.21550625$$

2. Divide

 FV

by the result:

$$PV = \frac{800}{1.21550625} \approx 658.16$$

Final Answer: 658.16

96. Consider a project that costs Rs. 14,762 with an indefinite life. If the cash flow in year 1, 3, 5...(i.e. every odd year) is Rs.1,000 and the cash flow in years 2, 4, 6... (i.e. every even year) is Rs.2,000; the rate of return of the investment is:

[2069/10/2 जनरल]

- A. 8%
- B. 10%
- C. 12%
- D. 15%

Correct Answer: BExplanation:

The rate of return for the investment is determined by equating the present value of the alternating cash flows to the initial cost. The cash flows form two perpetuities: one for odd years (Rs. 1,000) and one for even years (Rs. 2,000). The present value is calculated as follows:

$$PV = \frac{1000}{r} + \frac{2000}{r(1+r)}$$

Setting this equal to the initial investment of Rs. 14,762 and solving for r :

$$14,762 = \frac{1000}{r} + \frac{2000}{r(1+r)}$$

Simplifying and solving the quadratic equation yields

$$r = 10\%$$

Key Formula Derivation

The project has:

- Initial cost: 14,762
- Cash flows: 1,000 in odd years (1, 3, 5, ...) and 2,000 in even years (2, 4, 6, ...).

The cash flows can be treated as two separate perpetuities:

1. Perpetuity starting in Year 1 (odd years): 1,000 every 2 years.
2. Perpetuity starting in Year 2 (even years): 2,000 every 2 years.

#Step 1: Calculate the present value of each perpetuity

For an indefinite series repeating every 2 years:

$$PV = \frac{C}{r} \cdot \frac{1}{(1+r)}$$

(delayed by 1 year)

1. Odd-year perpetuity (1,000 starting at Year 1):

$$PV_{\text{odd}} = \frac{1000}{r}$$

2. Even-year perpetuity (2,000 starting at Year 2):

$$PV_{\text{even}} = \frac{2000}{r} \cdot \frac{1}{(1+r)}$$

Step 2: Total present value of cash flows

$$PV_{\text{total}} = \frac{1000}{r} + \frac{2000}{r(1+r)}$$

Step 3: Equate to the initial investment

$$14,762 = \frac{1000}{r} + \frac{2000}{r(1+r)}$$

Solving for

r

1. Multiply through by

$$r(1 + r)$$

to eliminate denominators:

$$14,762 \cdot r(1 + r) = 1000(1 + r) + 2000$$

2. Expand and simplify:

$$14,762r^2 + 14,762r = 1000 + 1000r + 2000$$

$$14,762r^2 + 13,762r - 3000 = 0$$

3. Solve the quadratic equation:



$$r \approx 10\%$$

97. The number of years required for the net operating benefits to payback the initial cost of the project is called:

[2069/10/6 हाइवे]

- A. operating period
- B. service period
- C. payback period
- D. maintenance period

Correct Answer: C

Explanation:

~ The payback period is the length of time it takes to recover the cost of an investment or the length of time an investor needs to reach a breakeven point. Shorter paybacks mean more attractive investments, while longer payback periods are less desirable.

~ The payback period is calculated by dividing the amount of the investment by the annual cash flow. One of the downsides of the payback period is that it disregards the time value of money.

98. For the selection of any project which one is mostly used?

[2069/10/2 जनरल]

- A. benefit cost ratio
- B. internal rate of return
- C. net present value

D. average worth method

Correct Answer: B

99. The most unpredictable cost of a project is:

[2069/10/2 जनरल]

- A. environment management cost
- B. under ground construction cost
- C. transportation cost
- D. social management cost

Correct Answer: B

100. If the percentage fall in quantity demanded is greater than the percentage rise in price charged then:

[2069/10/2 जनरल]

- A. the revenue will rise
- B. the revenue will fall
- C. the revenue will remain constant
- D. none of the above

Correct Answer: B

101. The benefit cost ratio is:

[2069/10/2 जनरल]

- A. directly proportional to discount rate
- B. inversely proportional to discount rate
- C. is not related with discount rate
- D. superior to all other methods.

Correct Answer: B

102. The additional money received from selling one more unit at a specified level of output is:

[2069/10/2 जनरल]

- A. normal cost
- B. marginal revenue
- C. average revenue
- D. equivalent revenue

Correct Answer: B

103. The point or situation when the production of material is just sufficient to consumption the called:

[2069/10/2 जनरल]

- A. equivalent point
- B. break even point
- C. satisfaction point
- D. all of the above

Correct Answer: B



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104. If two projects are mutually exclusive then :

[2069/11/8 इरिगेशन]

- A. The one with the higher NPV should be chosen
- B. the one with the positive NPV should be chosen
- C. the one with the negative NPV should be chosen
- D. reject both the projects

Correct Answer: A

105. Material cost is concerned with:

[2069/11/8 इरिगेशन]

- A. direct cost
- B. indirect cost
- C. both A) and B) above
- D. none of the above

Correct Answer: C

Explanation:

- Direct Material Cost - cost of materials that are directly traceable to the production of a specific product. The raw materials used to make a car or a piece of furniture are considered direct materials.
- Indirect Material Cost - cost of materials that are used in the production process but cannot be traced directly to a specific product. Materials like cleaning supplies or lubricants used in machinery would be considered indirect materials.

106. For a Government funded development project the most important factor to consider is:

[2069/11/8 इरिगेशन]

- A. cost benefit
- B. social and political benefit
- C. job creation
- D. economic rate of return

Correct Answer: B

107. Net Present Value (NPV) is a term widely used in:

[2069/11/8 इरिगेशन]

- A. cost benefit ratio
- B. internal rate of return
- C. project cost analysis
- D. none of the above

Correct Answer: C

108. For any project to be feasible:

[2069/11/8 इरिगेशन]

- A. future work should be negative
- B. present work should be positive
- C. annual work should be equal to zero
- D. payback period should be equal to less than 5 years

Correct Answer: B

109. The value of the property without being dismantled at the end of the useful life period is known as:

[2069/11/8 इरिगेशन]

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

Correct Answer: B

110. Sensitivity analysis provides a second look at:

[2069/11/8 इरिगेशन]

- A. hazard evaluation
- B. an economic evaluation

- C. productivity evaluation
- D. workmanship evaluation

Correct Answer: B

Explanation:

~ Sensitivity analysis reveals how sensitive different scenarios are to changes in specific input variables. Here, it is used to assess how sensitive the outcomes of an economic model (such as profit, cost, or return on investment) are to changes in key input variables or assumptions. It helps to identify the potential risks or uncertainties in economic evaluations and to make more informed decisions.

111. Excessive spending power of consumers that pulls prices up is called :
[2069/11/8 इरिगेशन]

- A. demand-pull inflation
- B. cost-pull inflation
- C. cost-push inflation.
- D. demand-push inflation

LOKSEWA
with Ghoksewa




Correct Answer: A

How Does Inflation Work?


Inflation represents the rate at which the cost of goods and services increase over a period of time.

Demand-Pull




When demand for goods/service exceeds production capacity.

Cost-Push



When production costs increase prices.

Built-In



When prices rise, wages rise too, in order to maintain living costs.

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112. The purpose of establishing a minimum acceptable rate of return is to ration capital to the:

[2069/11/8 इरिगेशन]

- A. most inferior proposal
- B. most deserving proposal
- C. average proposals
- D. all proposals

Correct Answer: B

Explanation:

Answer:

b. most deserving proposal

Explanation:

A **minimum acceptable rate of return (MARR)** is set to allocate limited capital to projects that meet or exceed a required profitability threshold. This ensures funds are directed toward the **most deserving proposals** (those offering returns above the MARR), not inferior or average ones. While the question is ambiguously phrased, "most deserving" aligns with the goal of prioritizing high-return projects.

Key Notes:

- MARR acts as a **hurdle rate** to filter out unprofitable or risky investments.
- Projects with returns \geq MARR are prioritized; those below are rejected.
- **Issue with phrasing:** "Ration capital to the most deserving proposal" implies selective allocation, which matches the purpose of MARR.

Why Other Options Are Incorrect:

- **a. Most inferior proposal:** Illogical, as MARR rejects inferior projects.
- **c. Average proposal:** Average projects may not meet the MARR threshold.
- **d. All proposals:** MARR exists to *limit* capital allocation, not approve all.

Example:

If a company sets a MARR of 12%, only proposals with an IRR \geq 12% (e.g., 15%) are funded. Minimum MARR is generally set to the interest rates offered by the banks. Bank ले दिने व्याज जति rate of return घटिमा हुनु पर्यो

113. For a financial institution the most important study of a project to be taken for risks management is:

[2069/10/6 हाइवे]

- A. appraisal
- B. environmental and social
- C. technical
- D. financial and economical

Correct Answer: A

114. For the selection of any project minimum future worth should be:

[2069/10/6 हाइवे]

- A. zero
- B. one
- C. minus one
- D. two

Correct Answer: A



115. Series of uniform income required annually throughout the project period to recover the invested capital is called:

[2069/10/6 हाइवे]

- A. payback amount
- B. sinking fund
- C. present worth annuity
- D. capital recovery cost

Correct Answer: D

116. As indirect cost of project increases, the profit of project?

[2069/10/6 हाइवे]

- A. increases
- B. decreases
- C. constant
- D. all of the above

Correct Answer: B

117. Using benefit cost ratio analysis, the project is said to be feasible if,

[2069/10/6 हाइवे]

- A. $B/C < 1$
- B. $C/B > 1$
- C. $C/B < 1$
- D. $B/C = 1$

Correct Answer: C

118. The item of cost which can be calculated easily for specific item of work is called:

[2069/10/2 जनरल]

- A. basic cost
- B. elementary cost
- C. prime cost
- D. specific cost

Correct Answer: C

Explanation:

The item of cost that can be easily calculated for a specific item of work is known as prime cost. This term refers to the total of direct materials, direct labor, and direct expenses associated with production, making it a straightforward measure for specific

tasks.

Other options like elementary cost, basic cost, and specific cost are less commonly used in this context.

Note:

Prime cost: Prime cost refers specifically to the total direct costs associated with manufacturing a product, including direct materials and direct labor.

Direct Cost: This term encompasses all expenses that can be directly traced to a specific product or service, which may include prime costs but also other direct expenses like packaging and shipping.

So, all prime costs are direct cost but not vice versa.

119. The change in any parameters of project due to change in any factor is called:

[2069/10/6 हाइवे]

- A. sensitivity
- B. resistivity
- C. variation
- D. none of the above

Correct Answer: A

120. The decision rule for project acceptance is that:

where IRR - internal rate of return and MARR is minimum attractive rate of return

[2069/10/6 हाइवे]

- A. if $IRR > 0$
- B. if $IRR > MARR$
- C. if $IRR = 0$
- D. if $IRR \geq MARR$

Correct Answer: D

Explanation:

~ IRR is a discount rate that makes the present value of future cash flows equal to the initial investment i.e. $NPV = 0$ while Minimum Attractive Rate of Return (MARR) is a reasonable rate of return an investor expects to make from an investment.

If the IRR is equal to or greater than the MARR, the project is likely to be approved. If not, the project is rejected.

121. Internal Rate of Return should be:

[2068/11/12 इरीगेशन]

- A. less than borrowing rate
- B. more than borrowing rate
- C. equal to borrowing rate
- D. all of the above

Correct Answer: B

122. Annual series of amounts for a period equivalent to the cash inflows and/or cash outflows, computed with deduction of expenses and capital recovery from receipts is:

[2068/11/12 इरीगेशन]

- A. annual-worth

- B. annual loss
- C. annual profit
- D. present worth

Correct Answer: A

Explanation:

The annual-worth method evaluates the equivalent uniform annual cash flow over a specified period. It considers cash inflows and outflows, deducts expenses, and accounts for capital recovery, providing a consistent annualized value for economic analysis. This method is commonly used in engineering economics to compare alternatives with different lifespans or costs.

123. Using benefit cost ratio analysis, the project is said to be feasible if:

[2068/11/12 इरीगेशन]

- A. $C/B < 1$
- B. $B/C < 1$
- C. $C/B > 1$
- D. $B/C = 1$

Correct Answer: A

124. Cost benefit ratio is given by:

[2068/11/12 इरीगेशन]

- A. PVB/PVC
- B. PVV/PVB
- C. FVB/FVC
- D. FVC/FVB

Correct Answer: A

125. During the analysis of four projects, following NPV is obtained: -1, 0, 0.5 and 1. Which project should be economically selected so as to get maximum benefit?

[2068/11/12 इरीगेशन]

- A. first
- B. second
- C. third
- D. forth

Correct Answer: D

126. The rate on the unrecovered balance of the investment in a situation where the terminal balance is zero is called:

[2068/11/12 इरीगेशन]

- A. minimum rate of return
- B. external rate of return
- C. internal rate of return
- D. maximum rate of return

Correct Answer: C

127. A review of management processes and the associated documentation is commonly called:

[2068/11/12 इरीगेशन]

- A. Audit
- B. Inspection
- C. Testing and measuring
- D. Screening

Correct Answer: A

128. The types of interest that is periodically added to the amount of investment so that subsequent interest is based on the cumulative amount:
[2068/12/7 विलिदंग एणुड आर्किटेक्ट]

- A. simple interest
- B. compound interest
- C. differential interest
- D. equal interest

Correct Answer: B

129. The classical economic method of evaluating the investment proposal deduced by deducting present value of cash outflow from present value of cash inflow is:

[2068/12/7 विलिदंग एणुड आर्किटेक्ट]

- A. net present value
- B. outer value
- C. internal rate of return
- D. exceeding value

Correct Answer: A

130. Net Present Value (NPV) is calculated with appropriate discount rate on:
[2068/12/7 विलिदंग एणुड आर्किटेक्ट]

- A. difference between benefit and cost
- B. addition of benefit and cost
- C. multiplying the benefit with cost
- D. none of above

Correct Answer: A

131. The material cost is:

[2068/12/7 विलिंदंग एण्ड आर्किटेक्ट]

- A. direct cost
- B. indirect cost
- C. both of above
- D. none of the above

Correct Answer: A

Explanation:

Answer:

a. direct cost

Explanation:

Material cost is typically classified as a **direct cost** because it can be directly traced to the production of specific goods or services (e.g., wood for furniture, fabric for clothing).

However, there are nuances:

- **Direct Materials:** Costs directly attributable to a product (e.g., steel for cars).
- **Indirect Materials:** Minor materials not directly traceable to a product (e.g., glue, lubricants), classified as **indirect costs** (part of overhead).

For exams, if the question refers to material costs **generically**, assume **direct cost** unless context specifies indirect materials.

Additional Relevant Content for Examinations:

Cost Classification

- **Direct Costs:** Traceable to a product/service (e.g., labor, materials).
- **Indirect Costs:** Overhead costs not directly traceable (e.g., rent, utilities).

Prime Cost vs. Conversion Cost

- **Prime Cost** = Direct Materials + Direct Labor.
- **Conversion Cost** = Direct Labor + Manufacturing Overhead.

Fixed vs. Variable Costs

- **Fixed Costs:** Unaffected by production volume (e.g., rent).
- **Variable Costs:** Vary with production (e.g., raw materials).

132. For the same amount of principal, the value of compound interest for the same time period will be:

[2068/12/7 विलिदंग ँणुड अरुकिटेकुड]

- A. less than the simple interest
- B. more than the simple interest
- C. equal to the simple interest
- D. all of the above

Correct Answer: B

133. The first factor for fixing the labour cost is the money associated with the hourly wages where as the second factor is

[2068/12/7 विलिदंग ँणुड अरुकिटेकुड]

- A. productivity
- B. fringe benefit
- C. payroll insurance
- D. taxes

Correct Answer: A

134. Another name for Net Present Value (NPV) is:

[2068/11/26 हरुडुवे]

- A. Accounting Rate of Return
- B. Net Present Worth
- C. Payback Period
- D. Economic Rate of Return

Correct Answer: B

135. Net Present Value (NPV) is defined as the total present value (PV)

of.....of cash flows:

[2068/11/26 हाइवे]

- A. a parallel series
- B. gross amount
- C. net amount
- D. a time series

Correct Answer: C

136. A project is said to be feasible when its net present value (NPV) is: "

[2068/11/26 हाइवे]

- A. less than one
- B. greater than one
- C. both of these
- D. none of these

Correct Answer: B

137. Costs that are not borne by the parties to the economic are called 'externalities'.

[2068/11/26 हाइवे]

- A. gain
- B. transaction
- C. transfer
- D. loss

Correct Answer: B

138. In economics, 'marginal cost is the change in total cost that arises when the quantity produced changes by:

[2068/11/26 हाइवे]

- A. 100 units
- B. 0.01 units
- C. 0.1 units
- D. 1 unit

Correct Answer: D

139. Discounting is the process of.....

[2068/11/26 हाइवे]

- A. deducting the equal periodic payments
- B. determining the future value of a cash flow
- C. finding the present value of a cash flow
- D. finding the series of equal periodic payments

Correct Answer: C

140. Costs which are independent of output, and no. alteration by the change in production level are called:

[2068/11/26 हाइवे]

- A. fixed costs
- B. production costs
- C. total costs
- D. variable costs

Correct Answer: A

141. In the process of selecting public project the criteria usually adopted is:

[2068/11/26 हाइवे]

- A. economic and financial evaluation
- B. profitability evaluation
- C. financial evaluation
- D. economic evaluation

Correct Answer: A

142. If 's' is the future capital accumulated in 'n' years at the rate of interest 'i' per annum, the present worth is:

[2068/11/14 हाइड्रोपावोर]

A. $\frac{S}{(1+i)^n}$

B. $S \times (1 + i)^n$

C. $\frac{S}{(1+i)^{1/n}}$

D. none

Correct Answer: A

143. Value is:

[2068/11/14 हाइड्रोपावोर]

- A. the cost of a structure
- B. the price of a structure
- C. both of the above
- D. none of the above

Correct Answer: D

Explanation:

According to the International Valuation Standard (IVS) 2024

✓ Price: The monetary or other considerations asked, offered or paid for an asset or to

transfer a liability. Price and value may be different.

✓ Cost: The consideration or expenditure required to acquire or create an asset.

So, while Market Value, Fair Value, Liquidation Value, Equitable value might be related to price, other value such as Investment Value are not based solely on price and reflect the benefits(short and long term) received by an entity from holding the asset .

✓ Value is a holistic measure of benefits relative to sacrifices, shaped by economics, psychology, and purpose. Neither cost nor price alone defines it, making d. None the correct answer.

✓ Also ISO 55000 (Asset Management): Defines value as "the worth, importance, or usefulness of something to an organization in achieving its objectives," reinforcing its complexity beyond cost/price.

144. Amount of money payable to a beneficiary at a regular intervals for a prescribed period of time out of a fund reserved for the purpose is :

[2068/11/14 हाइड्रोपावोर]

- A. interest
- B. principle amount
- C. annuity
- D. none of the above

Correct Answer: C

145. For the selection of any project, which criteria is followed?

[2068/11/14 हाइड्रोपावोर]

- A. internal rate of return
- B. net present value
- C. benefit cost ratio
- D. all of the above

Correct Answer: D

146. During calculation of IRR, NPV should be:

[2068/11/14 हाइड्रोपावोर]

- A. positive
- B. negative
- C. zero
- D. all of the above

Correct Answer: C

147. Any property that can be seen or touched is:

[2068/11/3 जनरल]

- A. personal property
- B. tangible property
- C. intangible property
- D. real property

Correct Answer: B

148. The heart of making engineering economic decisions is:

[2068/11/3 जनरल]

- A. capital
- B. human resource
- C. equivalence

D. interest

Correct Answer: C

Explanation:

Explanation:

The core principle driving engineering economic decisions is **equivalence**, which allows comparison of costs and benefits over time by converting them into a common basis (e.g., present value).

Key Points:

- **Equivalence Defined:** Cash flows are equivalent if they have the same economic value when adjusted for time and interest.
- **Role in Decisions:** Enables comparison of alternatives with different timelines (e.g., upfront costs vs. long-term savings).
- **Tools:** Basis for *Net Present Value (NPV)* and *Internal Rate of Return (IRR)*.

Why Other Options Are Incorrect:

- **a. Capital:** Funds projects but does not enable cross-temporal comparisons.
- **b. Human Resource:** Execution is secondary to financial viability.
- **d. Interest:** A tool for calculating equivalence, not the decision-making core.

Reference:

Engineering economics textbooks (e.g., *Engineering Economy* by Sullivan et al.) emphasize equivalence as the foundational concept.

149. Which of the following is the correct formula for calculating present value of a business or organization? R= interest rate n-time period

[2068/11/3 जनरल]

A. Present value = $\frac{\text{future value}}{(1+R)^n}$

B. Present value = $\frac{\text{Future value}}{(1-R)^n}$ #

C. Present value = $(1 + R)^n$

$$D. \text{Present value} = \frac{(1-R)^n}{\text{Future value}}$$

Correct Answer: A

Explanation:

The formula accounts for the fact that money today is worth more than the same amount in the future due to its potential earning capacity. Dividing

FV

by

$$(1 + R)^n$$

"discounts" it to reflect its current value.

150. Pay-back period is counted only after:

[2068/11/3 जनरल]

- A. tendering for the project
- B. starting of the construction of the project
- C. starting of the construction of the project
- D. commissioning of the project

Correct Answer: D

151. The financial analysis helps to judge:

[2068/11/3 जनरल]

- A. the operational efficiency of the firm
- B. the financial position of the firm.
- C. both of the above
- D. none of the above

Correct Answer: C

152. A road project is financially acceptable if:

[2068/11/3 जनरल]

- A. IRR is greater than borrowing rate
- B. IRR is equal to the borrowing rate
- C. IRR is less than borrowing rate
- D. none of the above

Correct Answer: A

153. Remaining the direct cost constant. indirect cost of a project increases.
then the profit of the project is :

[2068/11/3 जनरल]

- A. constant
- B. increases
- C. decreases
- D. no effect

Correct Answer: C



154. Benefit cost ratio is:

[2068/11/3 जनरल]

- A. directly proportional to discount rate
- B. inversely proportional to discount rate
- C. equal to the discount rate
- D. not in relation to the discount rate

Correct Answer: B

155. The amount of annuity paid at the beginning of each year and continued to pay for the definite number of periods known as

[2068/11/14 हाइड्रोपावर]

- A. annuity value
- B. bills
- C. annuity due
- D. annuity certain

Correct Answer: C

Explanation:

- Annuity value - series of equal payments made at regular intervals over a specified period of time.
- Annuity due - payments are made at the beginning of each period.
- Ordinary annuity - payments are made at the end of each period.
- Annuity certain - payments are made for a fixed period of time.
- Perpetual annuity - periodic payments begin on a fixed date and continue indefinitely.
- Deferred annuity - payments of the annuity began after some years.

156. The sinking fund is

[2068/11/14 हाइड्रोपावर]

- A. a part of the proceed in reserve for additional structure and modification
- B. the sum of money to be paid to authorities by the tenants
- C. the fund for rebuilding a structure when its economic life is over.
- D. raised to meet the maintenance costs of the structure before dismantling

Correct Answer: C

157. Break-even analysis is the limited form of:

[2068/11/14 हाइड्रोपावर]

- A. sensitivity analysis

- B. cost analysis
- C. benefit analysis
- D. interest analysis

Correct Answer: A

Explanation:

Answer:

a. sensitivity analysis

Explanation:

- **Break-even analysis** is a simplified form of **sensitivity analysis** (as per managerial accounting frameworks like Garrison's *Managerial Accounting*). It examines how changes in variables (e.g., price, costs) affect the break-even point (where total revenue = total cost). It is essentially a type of sensitivity analysis because it involves analyzing how sensitive the break-even point is to changes in different variables like sales volume, price, and costs.
- Break Even Point is calculated as
$$\text{BEP} = \frac{\text{Total Fixed Costs}}{\text{Price Per Unit} - \text{Variable Cost Per Unit}}$$
- **Limitation:** It focuses only on the "zero-profit" scenario, unlike full sensitivity analysis, which tests multiple outcomes across a range of assumptions.

Why Other Options Are Incorrect:

- **b. Cost analysis:** Break-even includes both costs *and revenues*, not just costs.
- **c. Benefit analysis:** Benefit analysis evaluates returns relative to costs (e.g., cost-benefit analysis), not the zero-profit threshold.
- **d. Interest analysis:** Unrelated to break-even, which ignores financing costs like interest.

Related Key Concepts:

- **Margin of Safety:** The difference between actual sales and break-even sales (measures risk).
- **Contribution Margin:** Revenue minus variable costs, critical for break-even calculations.

Example:

Fixed costs = Rs. 10,000, Price = Rs. 50/unit, Variable cost = Rs. 30/unit:

Break-even Quantity = $10,000 / (50 - 30) = 500$ units.

Reference:

-
-
-
-

158. The minimum value of benefit-cost-ratio for the selection of any project should be:

[2068/11/14 हाइड्रोपावर]

- A. less than one
- B. one
- C. greater than one
- D. none of the above

Correct Answer: B

159. Amount of money payable to a beneficiary at a regular intervals for a prescribed period of time out of a fund reserved for the purpose is :

[2068/11/14 हाइड्रोपावर]

- A. interest
- B. principle amount
- C. annuity
- D. none of the above

Correct Answer: C

160. For the selection of any project, which criteria is followed?

[2068/11/14 हाइड्रोपावर]

- A. internal rate of return
- B. net present value
- C. benefit cost ratio
- D. all of the above

Correct Answer: D

161. During calculation of IRR, NPV should be:

[2068/11/14 हाइड्रोपावर]

- A. positive
- B. negative
- C. zero
- D. all of the above

Correct Answer: C

162. If P is the principal amount, i is the rate of interest and n is the number of periods in years, then the interest factor is :

[2068/11/9 स्यानिटरी]

- A. $(1+ni)$
- B. $(ni-1)$
- C. ni
- D. none of these

Correct Answer: A

163. The financial analysis helps to judge:

[2068/11/9 स्यानिटरी]

- A. the operational efficiency of the firm
- B. the financial position of the firm.

- C. both of the above
- D. none of the above

Correct Answer: C

164. Internal rate of return IRR is the discount rate that.....

[2068/11/9 स्यानिटरी]

- A. equals to a project's NPV to zero
- B. equals to a project's NPV to -1
- C. equals to a project's NPV to +1
- D. none of above

Correct Answer: A

165. The main objective of sensitivity analysis of a project is to examine the..

[2068/11/9 स्यानिटरी]

- A. productivity
- B. profitability
- C. uncertainty
- D. sustainability

Correct Answer: C

166. The internal rate of return (IRR) is a rate of return used in capital budgeting to measure and compare the ... of investments.

[2068/11/9 स्यानिटरी]

- A. vulnerability
- B. variability
- C. size
- D. profitability

Correct Answer: D

Explanation:

Answer:

d. profitability

Explanation:

The **Internal Rate of Return (IRR)** measures the **profitability** of an investment by calculating the discount rate at which the Net Present Value (NPV) of cash flows equals zero. It helps compare the efficiency or potential return of investments.

Key Notes for Exams:

- IRR is used to evaluate **profitability**, not risk, size, or variability.
- A project is typically accepted if $IRR >$ the required rate of return (hurdle rate).
- **Limitation:** IRR can be misleading for projects with non-conventional cash flows or mutually exclusive projects.

Example:

If a project has an IRR of 15% and the company's hurdle rate is 10%, the project is considered profitable.

167. If the investment a firm makes would.....value from the firm, it means that $NPV < 0$.

[2068/11/9 स्यानिटरी]

- A. add
- B. subtract
- C. multiply
- D. none of these

Correct Answer: B

168. The ratio obtained by dividing quick assets by current liabilities is called:

[2068/11/9 स्यानिटरी]

- A. turnover ratio
- B. acid test ratio
- C. solvency ratio
- D. none of these

Correct Answer: B

169. Which of the following has least significance in Benefit cost Analysis of a public project?

[2068/11/9 स्यानिटरी]

- A. identification of relevant benefits and costs
- B. measurement of the benefits and costs
- C. treatment of uncertainty
- D. calculation of payback period

Correct Answer: D

Explanation:

Benefit Cost Analysis

- ✓ A cost-benefit analysis (CBA) is a process of comparing the projected costs and benefits of a decision to determine its feasibility.
- ✓ A cost-benefit analysis measures the benefits of a decision or action by subtracting the associated costs.
- ✓ It involves measurable financial metrics such as revenue earned or costs saved from pursuing a project.
- ✓ The analysis can also consider intangible benefits and costs, like public welfare, morale and satisfaction.
- ✓ Generally, if the benefits outweigh the costs, the project is favorable for a company.

170. The discount rate that makes the net present value equal to zero is known as:

[2067/12/10 हाइवे]

- A. internal rate of return
- B. external rate of return
- C. break even point
- D. none of above

Correct Answer: A

171. A technique that measures the-change in the profitability of a project caused by changes in the factors that affect the cash in flows of the project is called:

[2067/12/10 हाइवे]

- A. cost benefit analysis
- B. sensitivity analysis
- C. risk analysis
- D. capital analysis

Correct Answer: B

172. For the selection of any project the NPV should

[2067/12/10 हाइवे]

- A. zero
- B. less than 0
- C. both of the above
- D. none of the above

Correct Answer: A

173. The difference between actual cost of the project with the targeted cost is called:

[2067/12/10 हाइवे]

- A. loss
- B. profit
- C. variance
- D. all of the above

Correct Answer: C

174. As the benefit cost ratio of a project increases, the attractiveness of project increases. But minimum value of benefit cost ratio should be..... for acceptance of project.

[2067/12/10 हाइवे]

- A. less than one
- B. equal to one
- C. greater than one
- D. none of the above

Correct Answer: B

175. Payback period is counted only after

[2067/12/10 हाइवे]

[2068/12/7 विलिंदंग एण्ड आर्किटेक्ट]

[2068/11/12 इरीगेशन]

[2070/11/8 जनरल]

- A. tendering for the project
- B. starting of the construction of the project
- C. completion of the construction of the project



D. commissioning of the project

Correct Answer: D

Explanation:

~ The payback period is the length of time it takes to recover the cost of an investment or the length of time an investor needs to reach a breakeven point. Shorter paybacks mean more attractive investments, while longer payback periods are less desirable.

176. An agreement between two parties or more to do or not to do any work is known as:

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- A. contract
- B. specification
- C. tender
- D. work to proceed

Correct Answer: A

