CMA STUDENTS AND TEAM AAC CELEBRATING SUCCESS OF CMA INTER CLEARED STUDENT IN GOA

FIRST TIME IN HISTORY OF CMA.....

.....NEXT CAN BE YOU.

CMA STUDENTS AND TEAM AAC CELEBRATING SUCCESS OF CMA INTER CLEARED STUDENT IN GOA

TOKEN OF MOTIVATION TO ACHIEVERS

.....NEXT CAN BE YOU.

CMA STUDENTS AND TEAM AAC CELEBRATING SUCCESS OF CMA INTER CLEARED STUDENT IN GOA

PROMISE MADE BY AKASH SIR IN LAST SUCCESS BATCH IS DELIVERED

.....NEXT CAN BE YOU.

CMA STUDENTS AND TEAM AAC CELEBRATING SUCCESS OF CMA INTER CLEARED STUDENT

AAC = CMA

THAT IS WHY STUDENTS SAYS

AAC=CMA

.....NEXT CAN BE YOU.

CMA STUDENTS AND TEAM AAC CELEBRATING SUCCESS OF CMA INTER CLEARED STUDENT

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PRIDE OF AAC


AKASH AGARWAL CLASSES
EDUCATION IS POWER
CMA INTERMEDIATE
Jan 23 Exams Results
#Exclusive For CMA
536 Marks
Trishir Goyal
All India Ranker
#13
AAC = EXCLUSIVE FOR CMA ! 8007777042 / 8007777043


AKASH AGARWAL CLASSES
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Jan 23 Exams Results
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522 Marks
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All India Ranker
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500+ STUDENTS CLEARED CMA INTER IN JAN 23

AKASH AGARWAL CLASSES
EDUCATION IS POWER

AAC = CMA

OUR ALL INDIA RANKERS

CMA INTERMEDIATE

AIR 13

Trishir 536 Marks

AIR 20

Rishit 522 Marks

.... NEXT CAN BE YOU!!

CRACKED BOTH GROUPS IN FIRST ATTEMPT

..... NEXT CAN BE YOU!!

PRIDE OF AAC STUDENTS CLEARING BOTH THE GROUPS

..... NEXT CAN BE YOU!!

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1. OPERATION MANAGEMENT

Ques-1] What is mean by Operating System ???

- 1] Operating system defined as —

Configuration OF Resources

combined for provision OF goods & Services.

- 2] Examples -

Retail organizations, Hospitals, BUS, Taxi services, Hotels Tailor etc..

- 3] Satisfactions -

→ Any op. system converts INPUTS, Using physical Resources to create OUTPUT to satisfy customer wants.

→ The creation OF goods & services involves transforming or converting INPUTS into OUTPUTS.

- 4] Various inputs such as —

CAPITAL LABOUR INFORMATION

∴ Used to create goods & services.

Using 1 or more transformation process.

- 5] Feedback & Control –

Feedback** – To ensure that desired output are obtained an organization takes measurements at various points in transformation process.

Control** – Compare previous establish standards determine corrective actions.

Ques-2]** What is mean by / Scope of Operation management ???

A] Location of Facility
B] Plant layout & mat. handling.
C] Material management
D] Maintenance management.
E] Product design
F] Process design
G] Production planning & control
H] Quality control.

Ques-3] Production Management VS Operation management

**	PRODUCTION MANAGEMENT	OPERATION MANAGEMENT
1. USES -	Production management is more used for system where tangible goods produced.	Operation management is more frequently used for inputs transformed to intangible.
2. IT COVERS -	Production management will cover process design, planning & control issues involving quality & organisation.	Operation management will cover organisation as bank, airlines, pollution control, Firms, police department etc.. to enterprises.
3. EVOLUTION	It is related to evolution - Operation management is term that used nowdays.	Production management preceds operations management in historical growth of subject.

Ques-4] What are objectives of operation management ???

- CUSTOMER SERVICE -

i] The first objective is customer service means service for satisfaction of customer wants.

↳ ii] Customer service is key objective of operation management

↳ iii] The operation management provide something specification satisfy customers terms of COST & TIMING.

↳ iv] 3 aspects of customer services → Specification, Cost, Timing

↳ v] Thus, primary objective satisfy providing the - 'Right thing' at 'Right price' at Right Time.

Principle customer wants

Principle function	Primary consideration	Other consideration
1. Manufacture	Goods of a given, requested & acceptable specification.	COST - PP or cost obtaining goods. Timing - Delivery delay from order requested.

2.	Transport —	Movement of a given, requested OR acceptable specification.	COST - cost of movement Timing - Duration & time to move wait or delay from commencement.
3.	Supply —	Goods of a given, requested OR acceptable specification.	COST - PP or obtaining goods. Timing - Delivery delay from req. supply
4.	Service —	Treatment of a given, requested OR acceptable specification.	COST - cost of treatment Timing - Required time For treatment.

- RESOURCE UTILISATION —

i] Major objective is utilize resources For satisfaction of customers wants effectively.

↳ ii] In efficient, use resources or inadequate customer service leads to commercial failure of op. system.

↳ iii] Operation management is concerned essentially with utilization resources.

Ques] What is characteristics of modern operation management ???

1] Manufacturing as competitive advantage

- Past production was considered to be like any other function org.
- When Demand ↑ & production capacities where inadequate then,
- muster all inputs & use to produce goods grabbed market.

(TQM) Total quality mgmt, (JIT) Just-in-time (CIM) computer integrated manufacture are only techniques employing gain advantage

2] Service Orientation

- Service sector is gaining greater relevance these days

The entire manufacture needs to geared serve

- Intangible & perishable nature of services.
- Constant interactions of client & customers.
- Small volume of prod^n serves local market
- Need to locate facility to serve local market

3] Disappearance of smokestocks

- Protective labour legislations, enviromental movement & gradual emergency of knowledge based on organisation.
- Have, brought total transformation in prod^n system.
- Todays factories are systematically design & built eviron. freienelly homes away from homes.

4] Small has become Beautiful

- E.F. Schumacher, in famous book small is beautiful opposed giant organisation & increase specilisation.
- He advocated, instead, intermediate technology, based on smallers works units
- Businessman, all over world did not believe schumacher philosophy.
- Inspired economics scale, & mass production.

Q.6) What is recent trend in production / operation management?

1] GLOBAL MARKET PLACE –

- Globalisation of business has compelled many manufactu- firm to have operations in many countries, where they certain advantage.
- This resulted in steep INCREASE LEVEL OF PRODUCTION among manufauturing.

2] PRODUCTION / OPERATION STRATEGY –

- More and more firm recognising importance of production Operation strategy Overall success of business.

3] TOTAL QUALITY MANAGEMENT [TQM] –

- TQM approch has been adopted many firms to achieve customer satisfaction by never ending thrust for improving quality goods & services.

4] TIME REDUCTION –

- Reduction for manufauturing cycle time & speed to market for new product provide competitive edge to over firm.
- Companies provide product at same price & quality provide edge over other.

5] TECHNOLOGY –

- Advance in technology had led to vast array of new product, new process & new materials and components.
- Automation, information & communication have way to companies operate.
- Technology changes in product & process have great impact on quality.

6] WORKER INVOLVEMENT -

- The recent trend to assign responsibility for decision making & problem solving to lower level of organisation.
- This is known as employee involvement & empowerment.

eg: Quality improvement teams.

7] Re-ENGINEERING -

- This involves drastic measures or break through improvement to improve performance of firm.
- It involves concept of clean-slate approch.

8] SUPPLY-CHAIN MANAGEMENT -

- Management of supply chain, from supply to final customers reduce cost of transportation, warehousing etc.

9] LEAN PRODUCTION -

- Production system have become lean production system which use minimal amount of resources to produce high volume of high quality goods.

10] ENVIRONMENT ISSUE -

- Today's production managers are concerned more & more with pollution control & waste disposal are key issues in protection of environment.
- There is increasing emphasis on reducing waste, chemical using biodegradable material.

2. OPERATION PLANNING

Ques-1] What is mean by Forecasting ???

- Forecasting means peeping into future.
- As future is unknown and anybody's guess but business Leaders in past have envolved in certain systematic and scientific methods to know,
  - ↳ future scientific analysis based on facts.
  - ↓
- This systematic method is called as Forecasting.
- The sale Forecast is estimate amount of unit sales for specific period under marketing plan & program.
- Short term Forecasting will more useful in prodution.

- Long range > Normal p = 5 yrs.
  Other period = 10 to 15 yrs.
  ↓
  1) Acquire new facilities
  2) Determine cash flow from sales.
  3) Plan for future manpower requirements.
  4) Plan for material requirement.
  5) Plan for reasearch development.

  ∴ Long Term growth factors.

- Medium range = 1 to 2 yrs.
  ↓
  1) Determine budgetory control over expenses.
  2) Determin dividend policy.
  3) Find & control main. expense
  4) Determine schedule of operations.
  5) Plan for capacity adjustment

- Short Term = Few weeks
  3 to 6 months.

1] Estimate inventory require.
2] Provide transport facility despatch FG.
3] Decide work loads for men & machines.
4] Find working capital.
5] Fix sales quota.

- Various Factors influence Forecast are -

- Environmental changes
- Changes preference of user.
- No. of competitive product
- Disposable income of consumer

Ques-2 What Factors determine effective capacity ???

1. FACILITIES — Design, layout, location & environment.
2. PRODUCT — Product design, product-mix.
3. PROCESS — Quantity & Quality capabilities of process.
4. HUMAN FACTORS — Job content, Job design, motivation, expressing of lab, learning rate.
5. OPERATIONAL FACTORS — Scheduling, material management, equipment breakdown.
6. EXTERNAL FACTORS — Product standards, safety regulation, pollution standard.

Ques-3 What are steps in Forecasting ???

1) Determine the Objective Forecast
- what for you making Forecast ??
- It is study to trend ??
- You have to spell out clearly use of Forecast.

2) Select period over which Forecast
- It is long term, short term or medium term Forecast ??
- what are your information needs over what period ??

3) Select method you want to use making Forecast.
- This methods depends on period selected for Forecast & info. or data available on hand.
- Select appropriate method for making Forecast.

4) Gather information to be used in Forecast
- Primary sources -
- The data we will get records from itself.
- Secondary sources -
- This is available from OIs means publish data, magzines, educational, institutions.

5) Make the Forecast
- Using data collected in selecting method Forecasting.

Ques-4] What is mean by capacity planning ???

1. The effective management capacity is most important responsibility of production & op. management.
2. Objectives of capacity planning –
   i.e planning & control capacity, match level of op. level.
3. Finding answers to basic questions regarding capacity –
   - A] What kind of capacity needed ??
   - B] How much cap. needed ??
   - C] When this capacity needed ??
4. Capacity planning is carried out keeping in mind future growth & expansion plans, market trends &
5. Capacity is usually expressed volume of output per period time.
6. Capacity planning 2 types –
   - a) Long-Term cap plans
     - Concern with investment in new facilities & equip.
     - ∴ This plan covers time horizon more than 2 years.
   - b) Short Term cap. plans
     - which takes into account work force size, overtime, budget, inventories etc.
7. The operating unit might be plant, department, machine, store or worker.

Ques-5] Measurement of capacity ??

↳ Capacity of plant usually expressed as rate of output.

i.e = Terms of units produced per time.
(Hour, shift, day, week etc)

BUT

when firms are producing different types of product, it is difficult to use volume output each product express to capacity of firm.

↳ Capacity of firm expressed in terms of monetary value of various product together.

Ques-6] What Factors affecting determination of plant capacity ??

i] Capital investment required
ii] changes in product design, process design, Market conditions & product life cycle.
iii] Flexibility for capacity additions.
iv] Market demand for product.
v] Product obsolenscene & Technology obsolenscene
vi] Type of technology selected.

Q.7 What is forms of capacity planning ??

1) Based on Time Horizon
- long Term capacity plan
- Short Term capacity plan.

2) Based on amount of Resour
- Finite capacity plan [eg: camera]
- Infinite Capacity plan. [eg: vehicle]

Q.8 what are factors affecting capacity planning ???

1) Controllable Factors
- a) Amount of labour employeed, facility installed, machine, tooling
&
- b) Shift of work p.day, days work p.week, Overtime work.

2) Less Controllable Factors
- a) labour performance, machine breakdowns, material shortage
&
- b) Scrap & rework, Strike, lock-out, Fire, natural calamities, Flood etc.

Q. to What is mean by capacity Requirement planning ??

- (CRP) - It is technique which determines what equipment & labour personnel capacity are require to meet schedule & (MRP-I)

1] Level Capacity

a) Plan is based in "Product-to-Stock & Sell" approches in production system at Operated in uniform levels

b) FG rise ↑ & fall ↓ up depending upon wheather production levels exceeds demand or time vice v.

2] Matching Capacity with demand

a) Production capacity is matched with demand in each period (weekly, monthly, quarterly)

b) Material flows & machine capacity are changed from quarter to quarter match demand.

- Advantages -
  Low level of FG inventory resulting in lessing inv. cc
- Disadvantages -
  High labour & mat. cost becoz of frequent changes in workforce (Hiring, lay-off, Overtime cost)

3] Optimum Plant capacity

a) Plant capacity has great influence on cost of prodn in increasing volume of prodn.

b) Production facility, there is optimum volume of o/p per year result in least avg. unit cost this called "BEST OPERATING LEVEL"

4] Balancing the capacity

a) When output rate of diff. machines do not match with required about rate of product produced,

there will imbalance of work loads of diff machines.

Q.Eg What is mean by capacity Requirement planning ??

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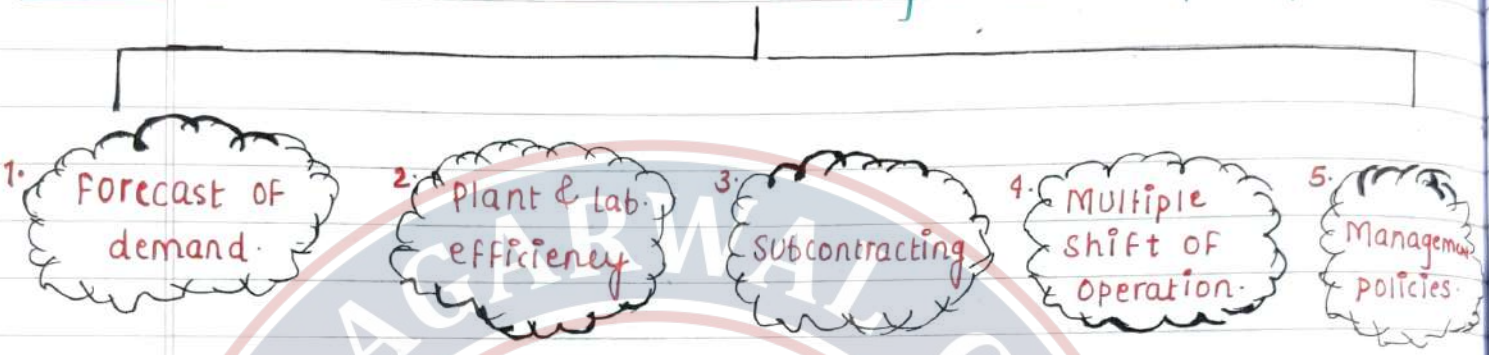
Ques-10] What are the factors influencing Effective Capacity???



A] Forecast of demand -

- Demand forecast is going to influence capacity plan in significant way.
- It is very difficult to forecast the demand with accuracy changes significantly product life cycle stage.

B] Plant & Lab efficiency -

- It is difficult to attain 100% efficiency of plant & equipment.
- The efficiency less than 100% because of enforced idle time due to machine breakdown.

C] Subcontracting -

- Subcontracting refers to off loading some of jobs due to outside vendors,

thus hiring the capacity meet requirement of organisation

D] Multiple shift Operation -

- Multiple shift are going to enhance the firm's capacity utilisation.

E] Management Policies -

Management policies regards subcontracting, multiplicity of shifts

Ques-11] Explain facility location ???

STEPS IN LOCATION SELECTION

1. Decide on Domestic or International Location.

2. Selection of Region
   - Availability of Raw materials.
   - Nearness to the market
   - Availability of power.
   - Transport Facility
   - Suitability of climate
   - Goverment policy.

3. Selection of Community
   - Availability of Labour
   - Civic amenities of worker.
   - Existence of complementary & competing industries.
   - Availability of water & Fire - Facilities.

4. Selection of Site
   - Soil, Size & Topography

1. Deciding on Domestic or International Location -

↓

i) First step in plant location is decide wheather facility should located domestically or internationally.

ii) If mgmt decides foreign location, Next logical step is - decide particular country for location.

iii) To choice particular ~~stabi~~ country depends on factors - as political stability, export & import quotas, currency & exchange rates, natural or physical condition.

2. Selection of Region -

A) Availability of Raw material

↓

Nearness to raw mat. offer such advantages:

↓

- Reduced cost of Transportation
- Regular & proper supply of materials.
- saving in cost of storage of mat.

B) Nearness to market

↓

- Goods are produced for sale, it is very essential factory should located near their market.

C) Availability of power

↓

Power is essential to move wheels of an industry, coal, electricity, oil & natural gas are sources of power.

D) Transport Facilities

↓

Transport facility are essential for bringing raw material & Men to factory & for carrying FG from a factory market.

3. Selection of community -

A) Availability of labour

- Labour is an important factor of prodⁿ of goods.
- An adequacy of lab. supply at reasonable wages is essential for smooth & successful working of organisation.

B) Civic amenities of worker

- Besides good working condition inside factory, employees require certain facility ouside.
- Facilities such as clubs, theatres, parks etc.. must provided for employees

C) Existence of complementary & competing industries

- An industrial unit, collaboration with other similar unit, secure mat. better term than it can do itself.
- They it helps to increase variety of materials.

4. Selection of site

A) Soil, Size & Topography

- Producing engineering goods, Fertility or otherwise of soil may not factor influencing plant location.
- Agro based industries, Fertile soil necessary for ensuring strategic plant location.

Ques-12] Define Facility layout???

1. It is also known as layout of facility —

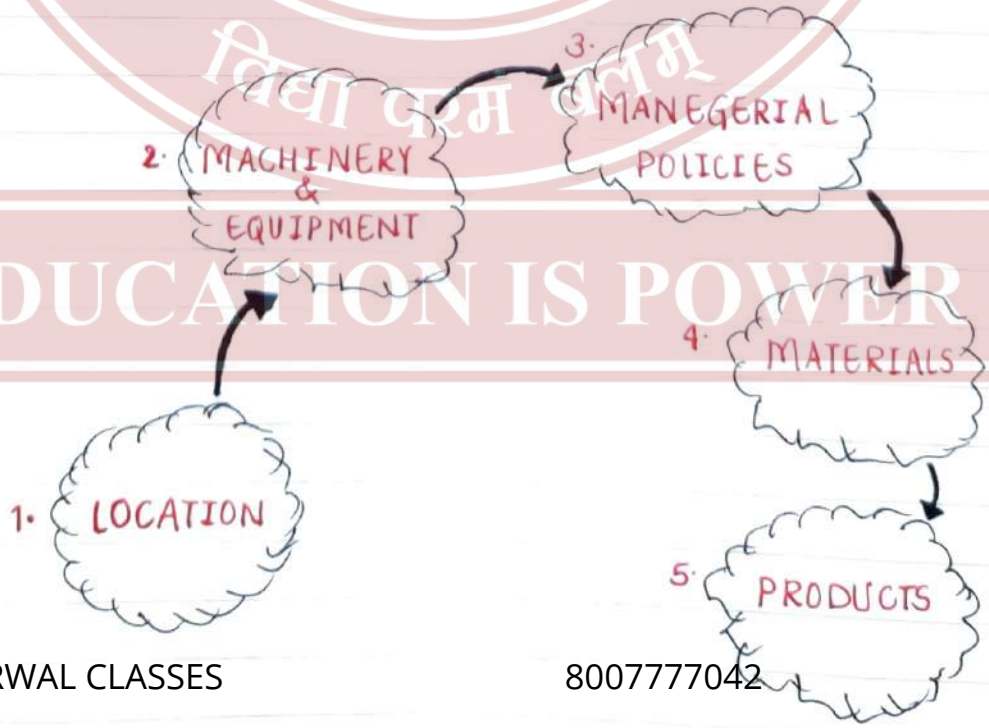
2. Refers to configuration of department, work centres, equipment & machinery

3. Plant / Facility layout means-

4. Planning for location all machines, equipment, utilises tool cribs, rest room, coffee within building

5. Layout planning involves decision about physical arrangement of economic activity centres within Facility.

Ques-13] what is Factors influencing layout choices.



Q.14] What is principles of plant layout ???

1. Principle of minimum Travel
- Mens & materials should travel shortest distance betⁿ operations.
- It is avoid waste of labour & time minimises.

2. Principle of Usuage
- Every unit of space available effectively utilised.

3. Principle of safety & satisfaction
- The layout should contain built in provision for workmen
- It should planned on basis of comfort & convience workmen.

4. Principle of Flexibility
- The layout should permit revisions with least difficulty & minimum cost.

5. Principles of Sequence
- Machinery & operations should arrange in sequence order.
- The principle is best achieved in product layout.

Q.15 Different types of layout ???

1. PRODUCT LAYOUT
   - a) It is called as straight-line-layout or layout for serialised manufacture.
   - b) Product layout involves arrangement of machine in one line depending upon sequence operation.

eg: RM → [M] → output → [S] → output → [K]

2. PROCESS LAYOUT
   - a) It is also called as functional layout, layout for job lot manufacture or Patch production layout.
   - b) It involves grouping together of similar machines of department.
   - c) Arrangement of machines depends upon Op. characteristics.

eg:

S	S	L	L
S	S	L	L

3. LAYOUT IN FORM FIXED POSITION

a) It involves movement of men & machines to product which remain stationery.

Or

b) This is also called static layout.

c) The men & machine movement are advisable becoz -
cost of moving less than,
cost of moving product is very bucky.

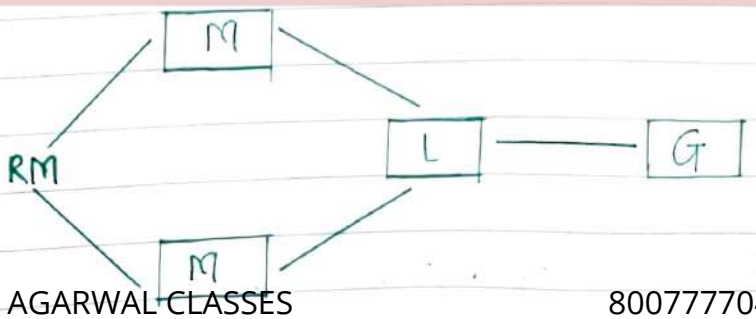
eg:

4. MIXED LAYOUT & COMBINED LAYOUT

a) Combination of
- Product layout
- Process layout

b) It is possible have both types of layout efficiently combined from pro. manufacture

eg:



Q. 16 What is mean by Aggregate Planning ???

**i] Aggregate planning is intermediate term of planning decision.

ii] It is process of planning quantity & timing of O/p over intermediate time horizon (3 months to 1 year)

iii] Physical Facilities are assumed to be fixed in planning period.

iv] Agg. planning seeks best combination to minimise cost.

- **Long Range Planning** – Deals with the strategic decision.
- **Short Term planning** – Deals with day-to-day work.
- **Intermediate planning** – Deals with the relationship with agg. planning.

Ques-17 What is aggregate planning strategies ???

a) Variables of production system are labour, material & capitals.

b) More labour effort is require to generate higher volume of output.

c) Employment & use of overtime (OT) are two relevent variable.

d) Material helps to generate output.

∴ certain activities are to be accomodated-

i] Vary size of workforce ii] Vary the hours worked iii] Vary inventary levels.

Ques-18

Material Requirement plan (MRP-I)

1) (MRP) refers to basic calculation used to determine components req. from end item requirement.

2) MRP logic serves the as key component in info. system for planning & controlling prodⁿ.

3) The info. provided by MRP highly useful in scheduling.

Objectives (MRP-I)

- Reduced Inventory
- Reduction in manufact.
- Realistic delivery com.
- Increased efficiency

Advantages

A) Reduced Inventory
B) Reduced idle Time
C) Reduced Set up Time
D) Ability to price more competitively

Manufacturing Resource Planning (MRP-II)

1) (MRP-II) has been developed to facilitate manufacturing manage and planning & controlling of manu. process.
AND
all releated support functions

2) Logically correct planning & controlling activities releated to material, capacity, Finance, sales.

3) (MRP-II) is universally applicable to any manufac. organization, regardless its size, location, produt & process.

Enterprise Resource Planning (ERP)

1) It is popularly known as ERP.

2) ERP is todays buzz-word in corporate world.

3) companies world-wide use ERP to integrate business process & reduce cost & increase productivity.

4) ERP software provided 'Total solution' to business enterprise.

5) ERP is business process mgmt software package developed for optimum resources of enterprise.

6) ERP integrates entire enterprises starting from supplier to covering a logistics, financial resourc.

Ques-19 What is EBQ ???

1] Production managers often decide quantity of O/P be produce batch is known as "LOT SIZE" OR "BATCH SIZE"

2] The product are manufacture in lot size against the anticipated demand for product.

3] Quantity may produced may exceed quantity which can sold.

4] Means, production rate exceeds demand rates.

5] Optimum lot size which is known as -
"EOQ / EBQ / Economic lot size"
which produce in 1 batch.

Ques-20 What factors considering determining lot size manufacturing???

1) Higher Rate of production should match with rate of usuage.

2] Higher lot size (LS) ↑ then, ↓ cost per unit produced
Becoz,
Distribution of set-up cost for setting up prodⁿ or machines preparing paper work.
BUT,
CC ↑ will with ↑ (LS)

3] Higher ↑ (LS) then, ↑ possibility of loss due to deteriation.
OR,
Obsolenscene,
(Due to technology & product design)

3. DESIGNING OF OPERATIONAL SYSTEM

(Ques-1) What about product Design???

- Production or operation strategy is directly influenced by product design for following reasons -

i) As products are designed, all detailed characteristic of each product established.

ii) Each product characteristic directly affects how product can made or produced.

iii) How product made determines design of prodⁿ system which is heart of prodⁿ & operation.

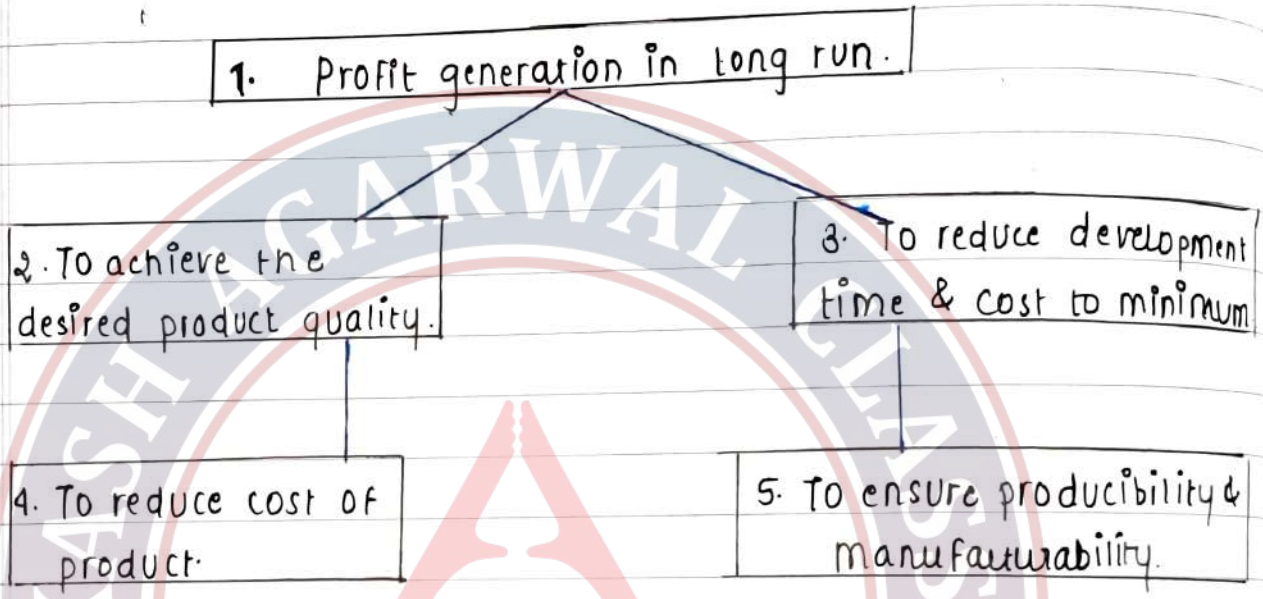
- Product design directly affects product quality, production cost, & customer satisfaction.
- Design of product is crucial to success in today's global competition.
- An excellent design includes - usability, reliability, functionality, innovation & appropriateness.
- Excellent design provides competitive advantage to manufacturer

Ques-2] What does product design do???

- THE ACTIVITIES AND RESPONSIBILITIES OF PRODUCT INCLUDES -

1. Marketing - — Refining existing products.
2. Product design & Production - — Developing new products.
3. Quality assurance, Production — Formulating quality goals.
4. Accounting — Formulating cost targets.
5. Marketing, Production - — Constructing, testing prototype.
6. Produut — Documenting specification.

Ques-3] What are objectives of product design ???



(Ques-4) What are the Factors influencing product design ???

(A) CUSTOMER REQUIREMENT
- ① Designer must Find out exact requirem. customers to ensure product suit the convience for use
- ② Product must be designed to be used in all kinds of conditions.

(B) CONVENIENCE FOR OPERATOR / USERS
- ① The industrial product of such machine & tools should design,
- ② Then they are convenient & comfortable for users.

(C) TRADE BETWEEN TWO FUNCTIONS & FORMS — Design should combine both performance & apperance with proper balance two.

(D) TYPES OF MATERIAL USED
- ① New & better materials are improve the product design.
- ② Designers keep in touch with latest development taking place in field of materials & use for improve the produu design.

(E) WORK METHODS & EQUIPMENT — Designer must keep abreast improvements in work methods, process, & equipments, design to make latest technology to achieve reduction cost.

(F) PRODUCT QUALILITY
- ① The product quality partly depends on quality of design & partly on qual. of performance.
- ② The quality policy of firm provided necessary guidelines for designer regarding extent to built design stage

(G) PROCESS CAPABILITIES
- ① The product design should take into consideration the quality of conformance.
- ② This depends on process capabilities of machines & equipment
- ③ However, designer should have knowledge of capabilities of manufac

(H) PACKAGING
- ① Packing is an essential element of product & packaging design go hand in hand with equal importance of packaging design.
- ② Packaging design must be take into an account of packaging such protection of product.

Ques-5] what are characteristics of good product design??

① Functions or Performance

- The function or performance is what customer expects product to solve problem / offer certain benefit leading satisfaction.

eg ⇒ A customer for motor bike expect bike start with few kick on kick peddle & also expects some other functional such pick-up, max. speed, power & fuel etc.

② Appearance or Aesthetics

- This includes the style, colour, look, feel etc, which appeal human sense & add value to product.

③ Realiability

- This refers to length time of product can used before fails.

- Realiability is probability that product will function for sp. time period without failure.

④ Availability

- This refers to continuity of service to customer.

- A product is operational available for used in state.

- It is combination of reliability & maintainability.

⑤ Prod-utibility

- It refers to easy to manufacture with mini. cost.

- This is ensured prod. design by proper specification, use of material then can easily process.

⑥ Simplification

- This refers to elimination of complex features so that intended functions performed reduce cost, higher quality, more customer satisfaction.

⑦ Standardisation

- Refers to design activity that reduce variety among group of product or part.

eg = Group technology items have standardised design which call for similar manufac. process.

- Standardised design may lead to reduced choices for customers.

⑧ Specification

- A specification is detailed description of material, part or product, including physical measure such as - DIMENSION, VOLUME, WEIGHT etc.

- This specification indicate tolerances on physical measures.

⑨ Safety

- The product must be safe to user & should not cause any accident while using not health hazard to user

eg = Pharmaceutical product used by patient

Ques-6] What is process design & selection ???

"Process design" it is sequence of all operation required to achieve product specification. It specify type of work station to used machine & equipment.

a) The nature of Product ⟹ Material Used ⟹ Quantities to be produced ⟹ Existing physical layout of plant

Make or by Purchase ⟸ Material handling ⟸ Automation ⟸ Expenditure to be incurred / budget

Ques-7] What is process planning ???

A] Process planning refers to way production of goods & services is organised.

B] It is basis of decision regarding capacity planning, facility layout, equipment etc.

C] Process selection is necessary firms takes up production of new product.

∴ 3 primary questions to addressed before deciding process -

1] How much variety of product or services will system need handle ??

2] What degree of equipment flexibility will needed ??

3] What is expected volume of output ??

Ques-8] what is process strategy?? what is different types of process strategy??

- Process strategy is organisation approch to process selection for purpose of transforming resources into good & services.
- Objective – To find way produce goods & services meet customer requirement.
- key aspects includes –
  - i] Maker or buy decision.
  - ii] capital intensity
  - iii] Process flexibility.
- 3 process Strategies –
  - PROCESS FOCUS
  - REPETITIVE FOCUS
  - PRODUCT FOCUS

A] PROCESS FOCUS –

i]- such process are called intermittent process also.

ii] Majority (75%) of global production is devoted to low volume, high variety product in manufacturing process

B] REPETITIVE FOCUS –

i] A repetitive process is product oriented production process that uses modules.

ii] It falls between product & process focus.

C] PRODUCT FOCUS –

i] It is facility organised around products, product oriented high-volume low-variety process

Ques-9] Explain product life cycle ???

The life cycle of product is broken into 4 stages →
INTRODUCTION, GROWTH, MATURITY, DECLINE.

1. INTRODUCTION STAGE
   - ① The 'introduction stage' is preceded by production and development.
   - ② This period requires greater investment.
   - ③ After testing, product enters the production/introduction stage & product will available in national market.

2. GROWTH STAGE
   - ① In 'growth stage' is preceded by both sales & profit will begin in increase.
   - ② The management, should try to change approch by changing strategies from "by p my product" to "try my product"
   - ③ At end of stage, distributed arrangement get completed & prices necessary reduced.

3. MATURITY STAGE

① There is 3rd stage is maturity stage.

② During this stage, manufacturing introduce new models & adopt methods

③ to promote sale of their brands with retaining view of position no. of buyer will grow, but more slowly.

④ At this stage, supply exceeds demand

4. DECLINE STAGE

① At final stage of decline, profit margin touch a low level, competition become serve & customer start using better product.

② Story of product ends - a natural but hard end.

Ques-10] Discuss process selection ?

5 basic process Types —
A] Job shop
B] Batch shop process
C] Repetitive process
D] Continuous process
E] Project process.

A] Job shop :-
- It is used in job shops when low volume of high-variety goods are needed
- Job shop characterised by high customisation, flexibility of equipment & skill labour volume.

B] Batch Process :-
- Batch processing is used when moderate volume of goods or services is required & moderate variety in product & services.

C] Repetitive Process :-
- Repetitive process is also referred as line process as it include production lines & assembly lines in mass production.

D] Continuous Process :-
- continuous process is extreme end of high volume, standardised prodn with rigid lines flows.

E] Project Process :-
- It is characterised by high degree of job customisation large scope of each product need substantial resources to complete project.

4. PRODUCTION PLANNING AND CONTROL

Ques-1] About production planning & control ???

- Production — Planning — Control is predetermined process which includes Raw material, Human resources & machines etc.
- PPC comes under manufacturing department
- PPC is technique to plan each & every step in long series Seperate operation.
- It helps to take "Right decision" at "Right time" & "Right place" to achieve max. efficiency.
- PPC can be viewed on nervous system of prodⁿ operation.
- Scope :- Unlimited and can be applied to any type of activity.
- Short range planning focuses on such areas such Inventory goals & wage budget.

Ques-2] What is Objectives of P-P-C ???

① Answering questions from customers & salesman concerning status their order

② Assisting costing department in making cost estimates order.

③ Controlling stocks of finished parts & products.

④ Determining necessary tools required manufacturing.

⑤ Keeping up-to-date records scheduled & in proce

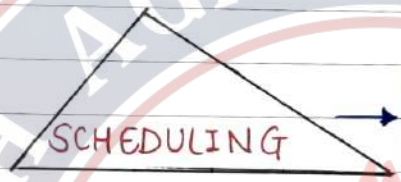
⑥ Maintaining stocks of materials & parts.

⑦ Receveing order From customers.

⑧ Preparing route sheets & schedule showing sequence op. prodⁿ produt.

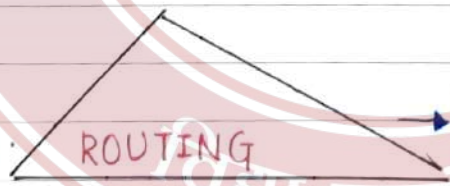
Ques-3] What does production planning & control include???

→ Planning production in detail



→ Establishing quantity of work to be done
Fixing time table performing operation.

→ Issuing necessary order, taking necessary steps ensure time targers.



→ Laying down path for work follow & order various op will be carried out

→ Conducting occasional check-ups of product manuf. assembled to height quality of prodn.

Ques-4] what are types of production control???

1. BLOCK CONTROL

A] This type of control is most prominent in textiles, books & magzines printing.

B] In this industries, necessary to keep things seperated.

C] AND Fundamental reasons why industries resort to block control.

2. FLOW CONTROL

A] This type of control is commonly applied industries like chemicals, petroleum, glass & some areas of food manufac.

B] Once's prod^n system designed then PPC department control rate of flow of work in to system.

C] But under routing, scheduling are done, when plant laid out.

3. LOAD CONTROL

A] Load control typically founded wherever

B] A particular bottleneck machine exists in process manufacturing

4. ORDER CONTROL

A] The most common type of prod^n is called order control

B] This type of control commonly employed comp. so called as "Job - Lot - Shopes"

5. BATCH CONTROL

A] Batch is another imp type of prod^n control which frequently found in food process industries.

Ques-5] Difference between Time study & Motion study???

	TIME STUDY	MOTION STUDY
1]	Time study aims determining best manner of doing job & timining performance of job when done in best manner.	-
2]	Time study work is divided into elements of operations.	In motion study, work is divided into funda. motions
3]	Attempts are remove useless motions & improve combinations & sequence of motion & op.	- Same -
4]	Motion Analysis	Elements of operation in 1 machinery.
5]	Best method determined by analysis of methods of equipment used motions only rough & indirectly	Best way of doing work is determining by motion analysis trained to follow method.

Ques-6] Write short note on –

1] WORK STUDY
- A] Methods study & work measurement which are used in examination of human work all context & systematically investigate all targets.
- B] Aims at finding best & most efficient way using avail. resources men, mat & meeting.

2] METHOD STUDY
- A] Methods study can be made by help of both motion study & Time study.
- B] The method study programme must include following features –
  - Uniform application.
  - Established stand. practice
  - continuous review.
  - Credit distribution.

3] JOB EVOLUTION
- A] Job evolution is ranking, grading & weighing of essential work characteristic of all job in order to find rare worth of Jobs.
- B] It is systematic approch to ascertain labour with each job is v. imp of employees.

∴ The system of valuation which are commonly adopted given –

1] Ranking / Grading Method.

2] Factor compensation method.

3] Point rating method.

Ques-7] What is Scheduling???

→ Scheduling is process of arranging, controlling & optimizing work & workloads prodⁿ process.

→ Scheduling technique is an important technique of determining starting & completion timing of each op.

→ Scheduling depends upon no. of Factors, routing method of prodⁿ, quantity of prodⁿ.

Ques-8] What are principles of Scheduling???

A] Principle Optimum task size

- Scheduling tends to achieve its max. efficiency when task size are small & task are of same order.

B] Prin. Optimum prodⁿ plan

- It is imposes an equal / even load on plants / facilities

C] Prin. Optimum Operation sequence

- Work centers are normally used in same sequence

Ques-9] Explain relationship between Routing & scheduling???

- 'Routing' & 'Scheduling' are interconnected & either of these activities cannot undertaken independently

- It is very difficult to prepare schedule without determining routing of sequence operation.

- Scheduling is equally important for routing.

- So, we can conclude that, Routing & Scheduling are inter-releated, inter-connected, inter-dependent activities of production planning.

Ques-10] Explain lean operation???

- Lean op. has roots in "Toyoto Auto. comp" ....j of Japan. where waste was to avoided at eall costs:-

a) Waste in time caused by having to repair facully produts.
b) Waste of investment in keeping high inventories.
c) Waste of having idle workers.

- Elements of lean prodution are -

① To consideration org. in terms of supply chain of value streams that extends from supplier of Raw mate.

② To organise in worker in teams to have every one in org. consciow his work.

③ To operate faeility in Just-in-time mode

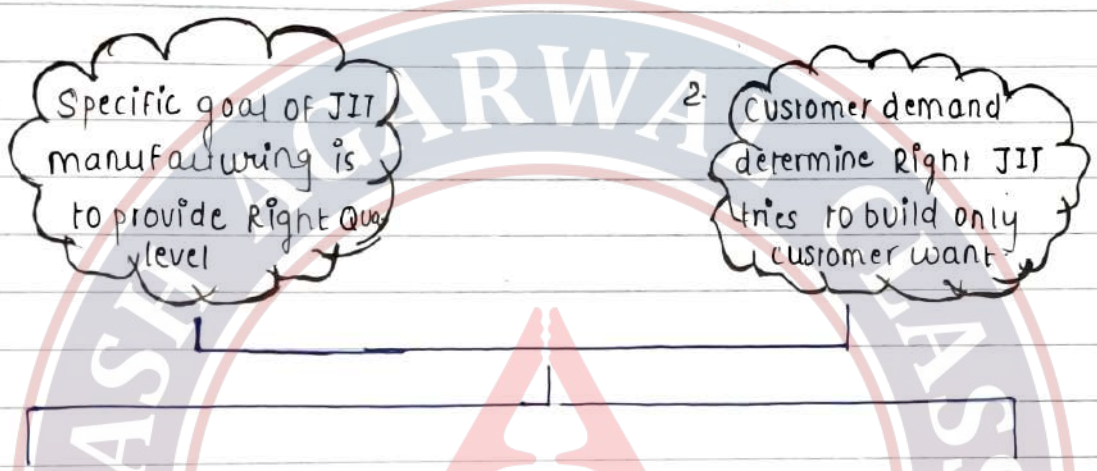
Ques-11] Define simulation???

↳ It involves developing a model of some real-phenomenon & performing experiments on model evolved.

↳ It descriptive & not Optimizing technique.

Ques-12] Explain Just-in-time (JIT) ???

- Objectives of JIT manufacturing



A] Produce only products (goods & services) wants.

B] Produce product only as quickly as customer want to use them.

C] Produce product with perfect quality.

D] Produce minimum possible lead times.

E] Produce products features that customer want.

F] Produce methods reinforce occupational dea workers.

- Overview of JIT manufacturing

[Inventory Reduction.
[Quality Improvement

[Total prev. maintainece
[strategic gain.

[Lead Time reduction
[continuous Improvement

Ques-13] Explain line balancing ???

Line balancing means —

"the apportionment of sequential work activities into work stations in order to gain a high utilization of labour & equipment & minimize idle time."

Ques-14] Explain Transportation model ???

↳ Transportation model deals with transportation of product manufactured at diff plants or factories to no. of diff warehouses. (demand destinations)

↳ satisfy destination within plant cap. constraints at mini. transp. cost.

5. PRODUCTIVITY MANAGEMENT & QUALITY MANAGEMENT

Ques-1] About production & productivity ???

Basis of comparison	Production	Productivity
1] Meaning -	Prodⁿ is function of an organisation which is a associated with conversion of inputs into desired output	Productivity is a measure of how efficiently resources are combined & utilised in Firm for achieving desired outcome.
2] what it is ??	Process	Measure.
3] Represents-	No. of units produced	It is measure of how much inpur are req to achieve o/p
		$P = \frac{Output}{input}$
4] Expression -	Absolute terms	Relative terms.
5] Determines -	value of o/p	Efficiency of factors of prodⁿ.

- Importance of concept of productivity can view -

1] To beat the competition -

:- It is an age of cut-throat competition.

2] Guide to management -

The productivity indices are very useful for management & can be used for diff. purposes.

a) Strategic b) Tactical c) Planning d) Administration

3] An indicator of progress -

In economically backward countries, productivity mgmt is basic aspect of progress.

4] Maxi. utilisation of scare resources -

The productivity process & techniques are designed to facilitate more efficient work involving less fatigue to worker by improvement in layout of plant of work.

5] Prosperity to labour -

It brings improved working conditions, better wages & salaries to workers, better labour welfare activities to labourers.

6] Other uses -

i) Higher productivity increases profits & reserve funds of industry that can used for expansion & modernisation.

ii) Increases goodwill of Firm due to cheaper goods to public, well-off staff & more profits.

- Measurement of productivity –

A] Change in output per unit of input

Indicates change in performance of corresponding input during given period

eg:- change in output per worker or per man hour.

B] change in Input per unit of output.

During given period signifies change in performance of corresponding input factor.

eg:- change in man-hour or worker per unit of output.

(Ques-2) Mention indices of productivity ???

1] Man-hour output

- Most widely used index productivity is to work out output per man-hr.
- Productivity = units of output / Total man-hrs.

2] Productivity Ratio

- The rate of return on capital employed is valuable & widely to guide many types of decision.
- Productivity = Net profit / capital employed

3] Use of Financial Ratio
- There are many situation when time standards cannot be set therefore, it is very difficult in such cases to measure productivity.
- Productivity = Added value / Labour cost
- Productivity = Added value / conversion cost

4] Other useful measures
- (i) Manpower productivity = value of o/p goods / No. of man/workers hrs to used.
- (ii) Mat. productivity = value of o/p good & ser / unit (cost) mat used
- (iii) Cap. productivity = value of o/p goods & ser. / capital asset employed
- (iv) Energy productivity (combined) = value of o/p goods & / value of (lab + cap + mat + other inputs)

5] Combined measure of productivity can taken as -
∴ Energy productivity = value of o/p goods / services / Units (cost) of energy used

Ques-3] What are tools of productivity or how to increase productivity?

- The productivity of an enterprise can improved by improving performance of various input & other factors productivity.

1. HUMAN ASPECTS
   - A] More workers participation in mgmt or in decision making through joint consul.
   - B] Improving communication services.
   - C] Improving mutual trust & cooperation through improve job procedures, better training employees, lab. welfare programme.

2. SUPPLY OF INPUTS
   - A] Improvement in nature & quality of raw material & their supplies to work.
   - B] Proper provision of plant, equipment & maintenece.
   - C] Intro. of more & more mach & equp. place in work.

3. TECNOLOGY ASPECTS
   - A] Work, time & motion studies to determi better way & means of doing job.
   - B] Implementing various simplification, specialisation & standardization progra.
   - C] Improving inspection technique minimise wastage.

∴ Following Factors affecting productivity -

1. TECHNOLOGICAL DEVOLPMENT

1) Size of Plant
- Size of plant & cap. utilization has direct bearing on productivity.

2) Reasearch & Development
- R & D may yeild better method of work & better design quali. work.

3) Machine & equi. Design
- Wheather design of machinery & equip is modern & keeping with limitation & cap.

4) Power, Raw, Mat
- Improve quality of raw mat & increase use of power.

2. SCIENTIFIC MANAGEMENT / Individual Factor

- Individual factor such as knowledge, skill, attitude also affect productivity of industry.
- Knowledge is acquired through training, education & Int on part of learner.
- Increase knowledge, skill aptitude certainly increased the productivity.

3. ORGANISATION FACTOR

- Organisation factor include various steps taken by org. towards maintaining better industrial relation such as -
- delegation, decentralization of authority, wage salary level, incentives, merit rating etc.
- This Facts were brought out by 'Hawthorne' experiment in U.S.A

4. WORK ENVIRONMENT

- The importance of proper work environment & physical condition on job has been emphasised by industrial physchologist & human engineer.

5. OTHER FACTORS

1) Natural Factors
- Physical, geographical, & climatic condition influence produtivity large.

2) Managerial factor
- The industrial produtivity is influence very much through managerial ability & leadership.

3) Goverment policy
- Goverment policy towards industry also contribute to industry produtivity.

Ques-4] What is Total quality management (TQM) ???

- A philosophy that involves everyone in organisation in a continual effort improve quality & achieve customer satisfaction.
- Basic concepts of TQM -

1. Top management commitment & support.
2. Focus on both internal & external customer
3. Employee involvement & empowerment.
4. Continuous improvement (KAIZEN)
5. Partnership with suppliers
6. Establishing performance measures for process.

- TQM is "Japanese" approch quality.
- TQM refers quest - quality in organization.
- 3 philosophies of TQM —

i] Never-ending push to improve, which referred continuous improvement.

ii] Involvement of every employee in org.

iii] Goal for customer satisfaction which means meeting.

Ques-5] ISO STANDARD BASIS -

Quality Certification

A] Many international business recognize importance of quality certification

B] The EU, 1987 established ISO (International organisation for standardisation) 9000 certification.

C] Two most well known of these "ISO 9000" & "ISO 14000".

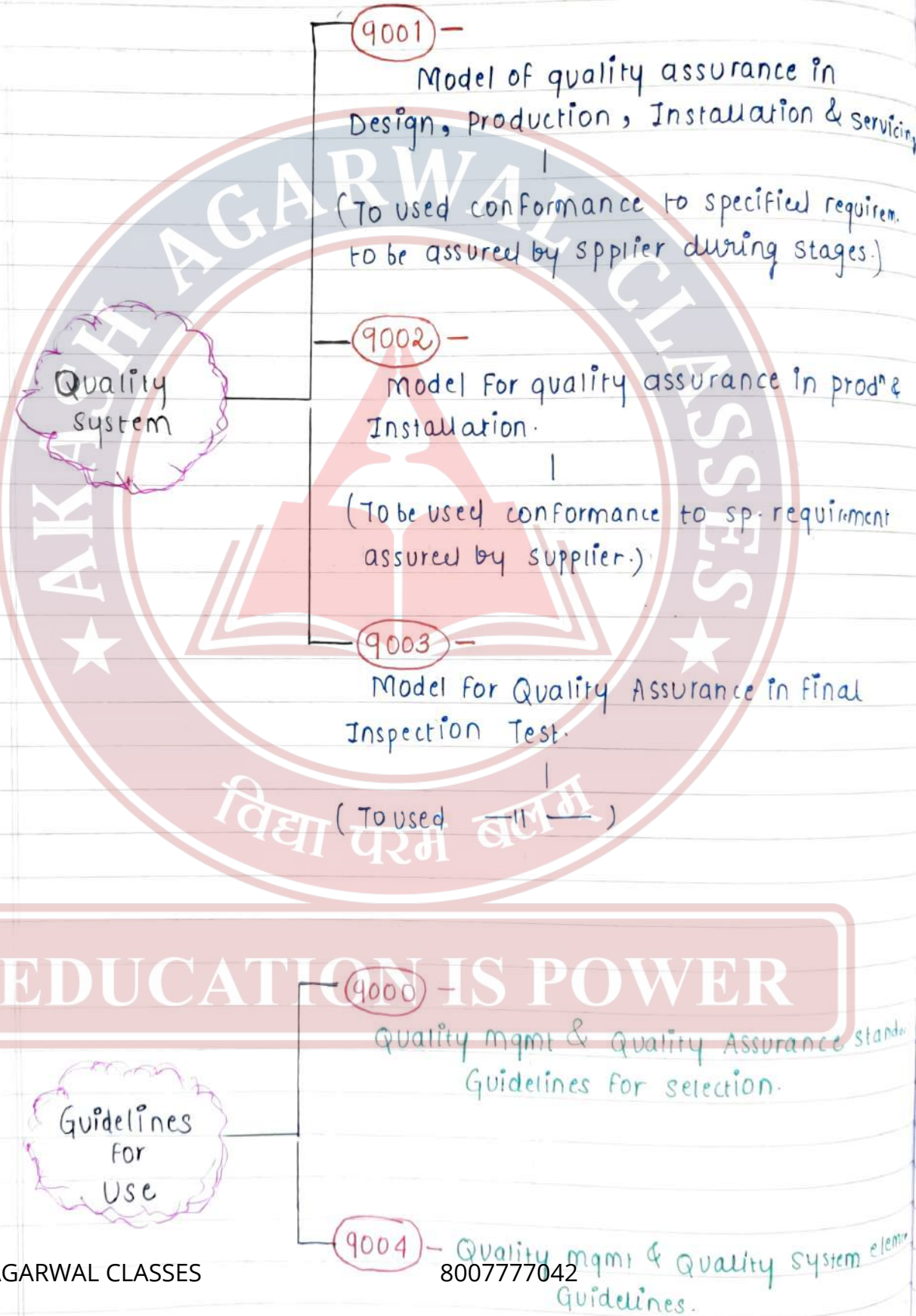
D] ISO 9000 :- It pertains to quality mgmt. It concern on what organization does ensure that product or service.

E] ISO 14000 :- It concern minimization of harmful effects to environment caused by operation.

F] ISO 9000 composed national standard bodies of 91 countries. 90 countries have adopted ISO 9000 national standard.

G] ISO certificate is elaborate & expensive pro.

H] There are essentially 5 standards associated with ISO 9000 series.



6. PROJECT MANAGEMENT

Ques-1] Describe Project planning in detail !!!

- Project planning is part of project mgmt, which relates to use of schedules such a Gantt charts to plan.
- Project management is discipline of organizing & managing resources (eg. people)
  ↳ in such a way that project completed within scope, quality & time & cost.
- A project is temperory & one-time endeavour undertaken to create a unique product or service, which brings about beneficial change or added value.

↓

- The First challange of project management is to make sure that project is delivered within define constraints.
- Second, more ambitious challenge is optimized allocation & integration of inputs needed to meet pre-defined objectives.

↓

Following steps, necessary to duration for various task necessary to complete work are listed or grouped.

- The logical dependencies between task are defined using activity network diagram identification critical path.
- Float or slack time is schedule calculated p.m softwar

Ques-2) What is Gantt chart ???

Ganntt Chart is -

- Gantt chart principle tool used in scheduling & also in some methods of loading chart was originated by "American engineer "Henry.L" Gantt
- It consist of simple rectangular grid, divided by series of parallel horizontal & vertical lines.
- The vertical always divide horizontal scale units of time.
- The time units can be in years, months, weeks, days
- In this chart, time which an activity taken in complet task represented by horizontal lines.

The Institute OF Cost Accountants of India

- Horizontal lines divide chart into sections which represent various work task or work centers.

– When it shows only work task - products, orders or operati to be completed is called work schedule.

– When it shows same task opposite work centers to be completed is called - produced, workshops, machines called Load chart.

– The units schedule or loaded these chart always same.

Ques-3] Define Network Analysis with Important Analysis ???

1] Rowing is first step of production planning.

2] In small projects, rowing is very simple.

3] Sequence of operations can performed one after other given sequence.

4] But in large project, this is rather difficult problem.

5] In such cases, a through study is required to collect complete details about project then find out new better & quicker way to get work in decent way

6] First step is draw some suitable diagram showing various activities to their position project.

7] Such diagram is called Network Diagram.

8] It can be collection of minute details involved only gross outline of general functions.

Ques-4] What is difference between PERT & CPM

	PERT	CPM
1]	It is technique for planning whose scheduling & controlling of project activities are subject to uncertainty in perfor. Time.	It is technique for planning scheduling & controlling of projects whose activities not subjected to any uncertainty & perfor. time are Fixed.
2]	It is probabilistic model.	It is deterministic model.
3]	It is event oriented system.	It is activity oriented system.
4]	Basically does not differentiate critical & non-critical activities.	clearly differentiate critical & non-critical activities.
5]	Suitable for Reasearch & development project where times cannot be predicted.	Suitable For civil construction

Ques-5) Critical path analysis is project management tool? Explain?

- Critical path analysis (CPA) is project mgmt tool that :-

1] Set out all activities (individual) that make up larger product.

2] shows order in which activities have to be undertaken.

3] shows which activities can only taken place once other activities have completed

4] shows certain resources will be needed -
eg:- a crane hired for building site.

- Then (CPA) is drawn up based on dependencies such as-

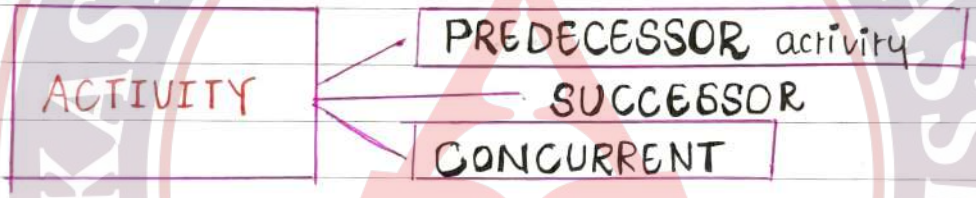
1] The availability of labour & other resources.
2] lead time for delivery of material & other services
3] seasonal factors -
such as dry weather required building project.

Ques-6) State important concept of Network Drawing ???

- A Network can be considered as mean "graphically depicting an operation involved a project"

- Network is constructed essential maintain relationship between various activities of project.

Network drawing can start with defining some key terminology

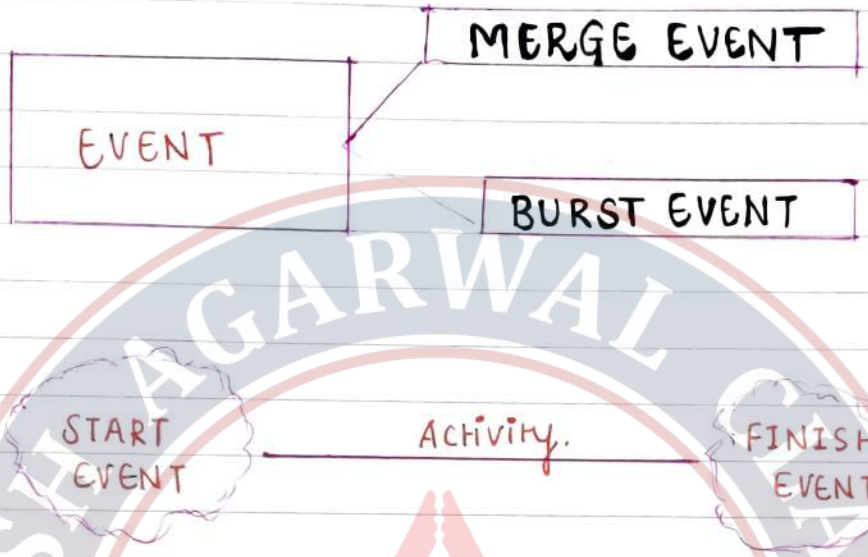


* In network diagram, An activity depicted by single arrow (→) This is not scaled & such length has no bearing on time activity
∴ The length of activity arrow is drawn conveniently so clarification relationship activity proper.

- PREDECESSOR — Activity means activity must be completed prior to start of an activity.

- SUCCESSOR — Activity cannot started started until are or more other activities which can occur simultaneously

- CONCURRENT — Activities means activities which occur simultaneously.



* An event represent specific accomoplishment in project take plave particular instant of time does not, consume time or resources. It is also known as "Nodes"

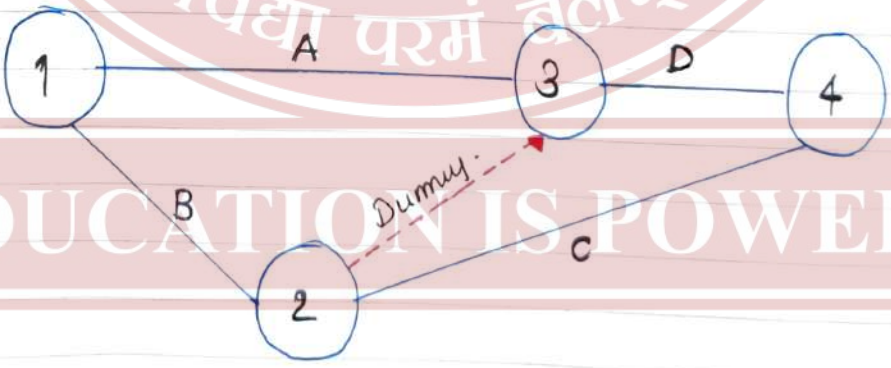
- MERGE – Event where more than 1 activity ends.
- BURST – Event From where more than 1 activity starts.
  - START EVENT are also called Tail event.
  - & Finish Event are also called Head event.

Ques-7) Explain concept of Dummy activities ???

DUMMY ACTIVITY

- It is very common feature in project also it can happen that 2 activities having same start & end events.
- Hence, as a rule there is only 1 activity between 2 events with use dummy activity, other events can introduced unique end events.
- Dummy activities consume no time or resource. In network diagram these are represented by dashed arrows (----→) & inserted network pattern following situation

a) To make activities with common start & end events distinguish
b) To identify & maintain proper precedence relationship between activities are not connected by events.



7. ECONOMICS OF MAINTENANCE & SPARES MGMT

Q.1] What about Machine maintenance ???

A] Machine maintenance means by which mechanical asset in Facility are kept in working order.

B] It involves regular servicing equipment, routine check, repair work

C] It include both heavy-duty industrial equipment & simple hand op machines.

D] It may also done proactively as preventive & predictive maintainence.

Ques. 2] what is mean by PREVENTIVE MAINTENENCE ???

1]	2]	3]
A system of scheduled, planned or preventive maintence tries to minimize problems of breakdown maintenece.	It locates weak parts in all equipment, provides regular inspection & minor repairs reducing danger unanticipated breakdowns.	Maintenence dep depending on size of plant generally takes up preventive maintenece work.

4] Preventive maintenece is costly affairs, is better to main records of cost (both mat & lab/spares)

- Advantages of preventive maintenance -

A] Reduced breakdowns & downtime.
B] Greater safety to worker.
C] fewer large scale repairs.
D] Better quality product.
E] Increased equip. life
F] Better industrial relation.

Ques-3] CMA INTER OM THEORY BHI HAI ZARURI

A) Maintenance Techniques

- In some cases, loss & inconvenience due to breakdown of equip is so high that standby equip.

- If original equip fail, the standby facility employed to avoid interruption & downtime.

B] Maintanence Orgnization

- At least 50 to 60% of investment of any org is spent on building & prodⁿ Facility.

- For effective contribution of work, maintenance dep must have proper place in org & also in good organization structure.

C] Organising Maintenance work

- In order to facilitate proper control of maintenance work.

D] Maintenance Request

- This must be made in writing to central point in org.

- No work should be carried out w/o knowledge & approval of maint. & supervisor.

E] Maintenance Stores

- Non-availability of vital spare parts when requ. to meet an emergency like breakdown lead to excessive shoutdown of plant & equip.

- A proper stores mgmt is essential mgmt as backup service of good maintenance.

Q.4] What is Breakdown maintenance???

→ Production facility is run without much routine maintenance until it is breakdown.

→ Once machine breakdown, it is taken for repair & inspected find out defects.

→ After identifying defect, required repair planned & spares are procured.

→ As breakdown are random in nature & machine used during repair period, prodⁿ hours are lost due to reduced productivity.

Ques-5] What is objectives of maintenance???

1] To keep all prodⁿ facilities & other allied facilities such as buildings & power supply system.

2] To ensure specified accuracy to produs & time schedule of delivery to customers.

3] To keep prodⁿ cycle with stipulated range,

4] To modified machine tool Meet augmented need for production.

5] To improve existing machine tools & avoid sinking addel capital

6] To keep maintain cost as min. as far as possi

Ques-6) Explain spares parts of management???

- Spares parts are categorized in 2 main groups.
  - Fast moving ↓ are those usually required
  - &
  - Slow moving ↓ are those that hardly ever required.

→ The managers comes across in difficulties to keep tracked of spare part used & determine demand manually.

→ The main objective is project is to create database mgmt system will help of Manager supervising spare parts.

- System should do following keep track-

a) Keep record of spare parts required particular type of maintanance.

b) Keep record of spare parts received used in past.

c) Keep record of spare parts vendor.

d) Forecast future demand for fast moving spare parts on past consumptions.

Ques-7] What are diff types of spare parts ???

1] Regular Spares
- i] The spares parts required & substantial & regularly number.
- ii] Both reliability & per-unit cost of these items are less.

2] Insurance Spares
- i] An insurance spare is spare part that you hold in your spare parts inventory, that you would not except use,
- ii] in normal life of plant & equip. If it is not available needed would result in significant losses.

3] CAPital Spares
- i] Capital spares are spare parts which, although acknowledged to have a long life

OR

- ii] Small chance of failure, would cause a long shutdown equip.

4] Rotable Spares
- i] Rotable items are those items of plants & assets that periodically are changed out of repair & overall.
- The management of rotable items & repairable spares parts is diff to mgmt of other inventory item -

Ques-8] what are maintenance problems ???

- The main problem in maintenance analysis to minimise overall cost of maintenance without scaring objectives.

There are 2 alternatives before mgmt

1] Repair a machine or equip. only when it break down.

This will save exp. of inspection & replacement of part before lifetime ends.

2] Replace equip. before the expiry of working life

This will involve cost of periodic shut down for checkups & repairs.

There are 2 types of cost

A] Cost of Premature Replacement

B] Cost of breakdown.

- Need to be balanced.
- The obj. is minimise total maintenance cost & downtime.

AKASH AGARWAL CLASSES
EDUCATION IS POWER

CMA FOUNDATION Results

MORE THAN 100 STUDENTS SCORE 80 + IN LAW

Congratulations

KOMAL R.	98	NITISH K.	90	HARSHIT J.	86	GAJANI V.	84	ROHAN P.	82
KHUSHI S.	96	PRATHAM C.	90	DEEP R.	86	MAYUR G.	84	SHAHIL S.	82
SONIKA S.	96	ROSHAN S.	90	DESPANDE V.	86	SAYALI M.	84	YAGNIK S.	82
VAIBHAV S.	96	SANIKA K.	90	DIKSHA G.	86	TISHA S.	84	RUTUJA H.	82
VANDANA V.	96	SIDDESH S.	90	FARHAN A.	86	ANAND T.	82	BHARTI S.	82
MANSI K.	96	TRUPTI I.	90	NIKITA C.	86	BHUMIKA A.	82	JAYESH S.	82
KHUSHI S.	96	TUBA M.	90	PRESTAN D.	86	RISHABH S.	82	AJAY Z.	80
PRERANA G.	94	DEV V.	90	PRIYA S.	86	ITI JAIN	82	ANUSHKA C.	80
PURNIMA K.	94	RAHUL L.	90	KRISHNA G.	86	KHUSHI C.	82	AYUSH T.	80
RITEEK R.	94	NIHARIKA R.	90	RAKHI T.	86	SHARAYU	82	MAITREYEE	80
SUJAL R.	94	SIDDHESH S.	90	POOJA T.	86	MANSI M.	82	MANSI B.	80
BHARAT J.	94	DEVESH A.	88	RAHUL G.	86	MUSKAN	82	MONESH C.	80
KUSUM G.	94	ARJUN N.	88	RISHAB A.	86	PRATEEK J.	82	SAROJ S.	80
RIYA R.	94	KRUSHNA C.	88	SIDDHI P.	86			SOUMYA C.	80
AKSHADA S.	92	DIKSHA R.	88	VIDYA T.	86			TIRTH K.	80
PRATHAMESH B.	92	HARSH D.	88	RAHUL V.	86			CHANDAN S.	80
SHRUTI VIJAY R.	92	HARSH P.	88	PANKAJ K.	86				
PRERNA B.	92	RIYA A.	88	ADITYA K.	84				
PRIYANKA S.	92	RUCHI K.	88	JAYESH B.	84				
SHIVANI U.	92	POOJA K.	88	DIPSHI C.	84				
SHUBHAM D.	92	PRATHMESH N.	88	NAMITHA	84				
TUSHAR T.	92	RITIKA J.	88	KANAN B.	84				
VAISHNAVI A.	92	TRIVENI P.	88	M UDHAYA	84				
VARSHA	92	TRUSHNA I.	88	MANGAL P.	84				
TRISHIR G.	92	VIVEK	88	TANISH C.	84				
SONI M.	92	ISHA S.	88	RADHE K.	84				
PEEYUSH A.	92	TANISHA J.	88	RAJESH G.	84				
ISHA M.	90	BAISHNAVI S.	88	TANISH J.	84				
PRANJAL	90	AYAN N.	88	AMIT K.	84				
SONAL S.	90	ANSH R.	86						

AND MANY MORE COUNTING

CA AKASH AGARWAL

AKASH AGARWAL CLASSES
EDUCATION IS POWER

CMA FOUNDATION Results

MATHS TOPPERS SCORE 80 +

Congratulations

TRISHIR G.	100	DEV V.	86	ROHAN P.	80
SHIVANI U.	96	ISHA S.	86	RUKSANA	80
BAISHNAVI S.	96	TISHA S.	86	VAIBHAV S.	80
G R NAMITHA	94	ADITI S.	86	YASHAN S.	80
PRIYANKA S.	94	AMAN R.	84	BHARTI S.	80
RIYA R.	94	DIKSHA R.	84		
HARSHIT J.	92	PRESTAN D.	84		
PRATHMESH N.	92	LOVELY K.	84		
VAISHNAVI A.	92	MUSKAN	84		
BHARAT J.	92	PRATHAM C.	84		
KANAN B.	90	RISHAB A.	84		
PRERNA B.	90	TUBA M.	84		
RADHE K.	90	KHUSHI S.	84		
SUJAL K.	90	SHAHIL S.	84		
MAYUR G.	90	ARJUN N.	82		
ADITYA K.	88	DIPSHI C.	82		
ANIRUDDHA D.	88	HARSH D.	82		
DEEP R.	88	KHUSHI C.	82		
KHUSHI S.	88	MAYANK M.	82		
KOMAL R.	88	TUSHAR T.	82		
TIRTH K.	88	VIDYA T.	82		
VARSHA	88	KUSUM G.	82		
TANISHA J.	88	LALIT P.	82		
ANJALI G.	88	DEVESH .	80		
SONI JUHI M.	88	KRISHNA G.	80		
NITISH K.	86	RITIKA J.	80		

& STILL COUNTING

CA Shruti Agarwal

AAKASH AGARWAL CLASSES

EDUCATION IS POWER

CMA FOUNDATION *Results*

STUDENTS SCORING MORE THAN 300


HIRAL M.
360 Marks


OM D.
358 Marks


ABHINAV N.
352 Marks


SUNDARAM D.
350 Marks


AKSHAT G.
350 Marks


VIDHI J.
342 Marks


SHUBHAM S.
342 Marks


RUSHIKESH B.
338 Marks


KANIKA G.
336 Marks


KHYATI B.
330 Marks


AYUSH S.
330 Marks


PUNEET Y.
328 Marks


VISMAYA R.
322 Marks


ANKIT K.
322 Marks


CHIRAG K.
322 Marks


PIYUSH M.
320 Marks


JANVHI N.
318 Marks


ARYAN C.
318 Marks


NEHA S.
318 Marks


NIKITA P.
316 Marks


TASMEET S.
316 Marks


ARYA J.
314 Marks


TANISH A.
310 Marks


ARYA B.
310 Marks


VAIBHAV C.
308 Marks


PRATHMESH B.
308 Marks


YASH D.
308 Marks


SHRINAASAN L.
308 Marks


DIYA G.
306 Marks


PIYUSH G.
302 Marks


AAKANKSHA C.
300 Marks


MADHAV G.
300 Marks

AKASH AGARWAL CLASSES

EDUCATION IS POWER

CMA FOUNDATION DEC 2021 Results

350 + SCORERS

Congratulations

BAISHNAVI SAMANTARA
370 MARKS

TRISHIR GOYAL
366 MARKS

PRERNA BARNWAL
360 MARKS

SUJAL KUMAR
356 MARKS

PRIYANKA SHETTY
356 MARKS

G R NAMITHA
352 MARKS

VARSHA
350 MARKS


AKASH AGARWAL CLASSES
EDUCATION IS POWER
CMA FOUNDATION
LAW TOPPER
HISTORY HAS BEEN CREATED
KOMAL RATHOD
98/100


AKASH AGARWAL CLASSES
EDUCATION IS POWER
CMA FOUNDATION
MATHS TOPPER
HISTORY HAS BEEN CREATED
TRISHIR GOYAL
100/100

CMA FOUNDATION JAN-23 GLORIOUS RESULTS

AAC = CHOICE OF CMA STUDENTS

AKASH AGARWAL CLASSES
EDUCATION IS POWER

India's No.1 Coaching Institute for CMA

CMA FOUNDATION RESULTS

MORE THAN 1000 STUDENTS HAVE CLEARED THEIR CMA FOUNDATION EXAMS THIS JAN 23

& MANY MORE .....

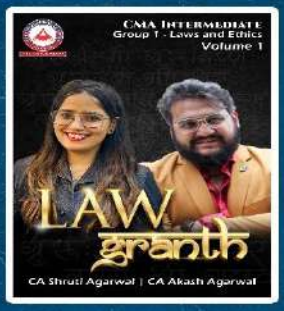
KULJOT SINGH
380 Marks

.... NEXT CAN BE YOU!!

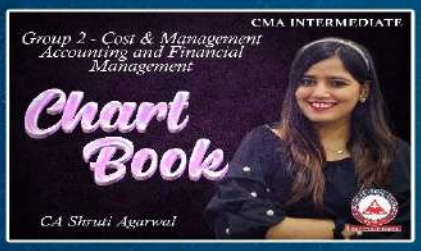
CMA FOUNDATION JAN-23 GLORIOUS RESULTS

OUR PUBLICATIONS

1)REGULAR BOOKS



2)SUMMARY/QUESTION BANK



3)SUCCESS BATCH BOOKS