

ISC Class 12 Business Studies Specimen Paper 2

Written by the Future Topper subject team on the CISCE examination pattern. Not an official CISCE paper.
Found a mistake? Write to contactfuturetopper@gmail.com

Maximum Marks: 80 | Time Allowed: Three hours | Reading Time: 15 minutes

Section A is compulsory. Attempt any four questions from Section B and any one question from Section C.

General Instructions

Write your answers on the separate answer paper provided. The first 15 minutes are for reading the paper, and you may not write during that time. Section A is compulsory and carries 20 marks. From Section B you must attempt any four of the six questions, each of which carries 10 marks. From Section C you must attempt any one of the two questions, which carries 20 marks. Marks for each question, or part of a question, are shown in brackets. Where a question asks for a stated number of points, write that number and no more, since only the first points offered will be marked. In Section C the answer must be framed on the facts of the case given to you, and a general answer that could have been written without reading the case will not earn the marks for application. All working for numerical questions must be shown, and every money figure must be written with its unit. No tables, charts or organisation charts are printed in this paper, and where a question asks for one you are expected to draw it yourself in pencil and label it. This written paper carries 80 of the 100 marks for the subject, the remaining 20 being for the project work.

SECTION A (20 Marks)

Attempt all parts of Question 1 and all parts of Question 2.

Question 1 [10]

Each part carries 1 mark. For the parts that offer four choices, write only the option you choose. For the rest, answer in a single sentence or give the single term asked for.

- (i) Name the level of management that is chiefly concerned with carrying out the plans of the middle level and with supervising the work of operatives from day to day.
- (ii) The technique of Taylor by which a worker who exceeds the standard output is paid at a higher rate for every piece he has produced is:
 - (a) time study (b) method study
 - (c) the differential piece rate system (d) fatigue study
- (iii) State, in one sentence, the difference between an objective and a budget as kinds of plan.
- (iv) Fixing the standards against which performance will later be measured belongs to the function of:
 - (a) staffing (b) directing
 - (c) organising (d) planning
- (v) Name the kind of financial decision a company takes when it determines how much of the year's profit to pay out and how much to keep in the business.
- (vi) The institution that holds securities in electronic form on behalf of investors, so that a sale needs no transfer of paper, is:
 - (a) a depository (b) a stock exchange
 - (c) a mutual fund (d) an underwriter
- (vii) State what is meant by the maturity stage in the life of a product.
- (viii) A firm appoints a committee of its workmen and its managers to hear and settle complaints about shift timings before they are taken to the union. This is an instance of:
 - (a) performance appraisal (b) a grievance redressal machinery
 - (c) job evaluation (d) recruitment

- (ix) State one reason why a start up may fail even though the article it offers is a good one.
- (x) A company that sells a cosmetic described as tested on no animals, when in fact it is so tested, is guilty of:
- (a) insider dealing (b) a restrictive trade practice in pricing
- (c) a misleading claim that deceives the buyer (d) a breach of the scalar chain

Question 2 [10]

Each part carries 2 marks.

- (i) Explain why management is called a group activity, and state one consequence of this for the manager. [2]
- (ii) Distinguish between authority and responsibility. [2]
- (iii) A company earns an operating profit of Rs 16,00,000 on total funds of Rs 80,00,000. Of those funds Rs 30,00,000 is debt carrying interest at 12 per cent a year and the rest is equity. Calculate the return on total funds and the earnings left for the equity, and state in one sentence whether the leverage has helped the equity shareholder. [2]
- (iv) Explain the difference between a bonus issue and a rights issue of shares. [2]
- (v) Explain what is meant by the training of an employee on the job, and state one advantage of it. [2]

SECTION B (40 Marks)

Attempt any four questions from this Section. Each question carries 10 marks.

Question 3 [10]

- (a) Explain the three levels of management, naming the posts found at each. [3]
- (b) Explain any three objectives that management pursues on behalf of the organisation. [3]
- (c) Explain any four reasons why management is regarded as a science, and state the one respect in which it falls short of a pure science. [4]

Question 4 [10]

- (a) Explain any three of Taylor's techniques of scientific management. [3]
- (b) Explain Fayol's principle of the remuneration of employees and his principle of the stability of tenure, and state one consequence of neglecting the second. [3]
- (c) Explain the meaning of centralisation and of decentralisation, and explain any three factors that decide how far a firm should decentralise. [4]

Question 5 [10]

- (a) Explain any three limitations of planning. [3]
- (b) Explain the meaning of span of management, and explain the difference between a tall structure and a flat one. [3]
- (c) Explain the steps of the controlling process, in their proper order, and explain what is meant by management by exception. [4]

Question 6 [10]

- (a) Explain any three objectives of financial management. [3]
- (b) Explain any three factors that decide the capital structure a company should adopt. [3]
- (c) Explain any four factors that decide how much of its profit a company should distribute as dividend. [4]

Question 7 [10]

- (a) Explain any three points of difference between a share and a debenture. [3]
- (b) Explain any three services a stock exchange renders to a company whose securities are listed on it. [3]

- (c) Explain any four protections the law and the regulator give to a small investor in securities. [4]

Question 8 [10]

- (a) Explain any three sources of internal recruitment, and state one drawback of relying on them alone. [3]
 (b) Explain any three financial incentives by which an employer may motivate his staff. [3]
 (c) Explain any four functions a sales manager performs in managing a field sales force. [4]

SECTION C (20 Marks)

Attempt any one question from this Section. The question carries 20 marks. Read the whole of the case before you begin, and frame your answer on the facts given.

Question 9 [20]

Dhruv Seolekar is the chief executive of Kaveri Fastenings, a company making nuts, bolts and washers for tractor and pump makers, with an annual turnover of about Rs 14 crore. The company has for some years worked on a yearly plan drawn up in a single sitting each spring, in which Dhruv and his works manager fix the output of each of the three lines for the twelve months ahead, after which a copy is sent to the departments and the matter is not reopened until the following spring.

This year the plan fixed the output of the washer line at 9,60,000 pieces for the year, that is 80,000 a month, and the output of the bolt line at 3,60,000 pieces, that is 30,000 a month. The washer line is to be run at a cost of Rs 2.40 a piece. In the first four months the washer line produced 2,56,000 pieces at a cost of Rs 2.85 a piece, and the bolt line produced 1,36,000 pieces. Nobody reported either figure to Dhruv, because the works manager's monthly return goes to the accounts department, which files it and prepares a consolidated statement once a year. Dhruv learned of the washer shortfall in the fifth month, from a customer who telephoned to ask why his consignments were short.

On enquiry Dhruv found three separate causes. The power supply to the press shop had been interrupted for several days in two of the four months, which nobody could have foreseen when the plan was drawn. The price of the steel strip from which the washers are stamped had risen, and the purchase officer had gone on buying at the new price without telling anyone, since no one had asked him to. And one of the two stamping presses had been running with a worn die for about six weeks, producing a high proportion of rejects, because the operator had reported it to his chargehand, who had told him that the die would be replaced at the annual shutdown.

- (a) Calculate the shortfall or excess on each of the two lines over the four months, and calculate the excess cost the company has incurred on the washers it did produce. [5]
 (b) Explain the steps of the controlling process, and identify, with reference to the facts, the step at which Kaveri Fastenings has failed. [5]
 (c) Explain, taking the three causes separately, what the company should do about each, and set out the system of planning and control you would advise Dhruv to put in place in place of the single yearly sitting. [10]

Question 10 [20]

Maithili Rangnekar is the owner of Barsana Threadworks, which makes embroidered cushion covers and table linen at a workshop of sixty five people in a small town, and sells them to three exporters and to a chain of handicraft shops. Eleven of her staff are designers and master embroiderers who have been with her for between six and fourteen years, and the rest are embroiderers and finishers of whom about half joined within the last three years.

Maithili pays everyone by the piece, at a rate fixed by the difficulty of the design, and she pays well: her rates are about a fifth above the rate at the two other workshops in the town. She gives no other benefit, holds no meeting of her staff, and settles every question of design herself. When an embroiderer has an idea for a border or a colour she tells him that the exporters buy what they are shown and not what the

workshop would like to make.

Three difficulties have appeared. In the last eighteen months four of the eleven senior people have left, two of them to the newer of the rival workshops, which pays less but has made one of them a design supervisor. Second, the proportion of pieces returned by the finishing table for rework has risen, and the embroiderers say among themselves that since they are paid by the piece there is no sense in slowing down to get a border exactly right when the finisher will send back only some of what is wrong. Third, the chain of handicraft shops asked in the last season for a range of its own, with fresh designs each quarter, and Maithili, who does all the designing, could offer only two new designs and lost the order.

- (a)** Explain why Maithili's high piece rate has not kept her senior people, and explain, with reference to a recognised view of what motivates people at work, what her staff are not getting. [5]
- (b)** Explain how the piece rate as she has fixed it is itself causing the rise in rework, and explain what is wrong with her answer to an embroiderer who brings her an idea. [5]
- (c)** Set out the measures you would advise Maithili to take on the motivation and the development of her staff, and explain how each of the three difficulties would be met by them. [10]

ANSWER KEY AND MARKING SCHEME

Full working is given for every numerical answer. Marks shown in italics are the step marks an examiner would award. No mark is deducted for a wrong option in Question 1. Where a question asks for a number of points, award the marks for the first points offered up to that number, and accept any other correct point of the same weight. In Section C the marks for application are to be awarded only where the answer uses the facts of the case, the figures and the names given in it, and an answer that states the textbook rule correctly but never touches the case is to be given no more than half the marks for the part.

Question 1 [10]

- (i) The lower or operational level of management, at which are found the foremen, the chargehands, the supervisors, the superintendents and the section officers.

Level correctly named 1.

- (ii) (c) the differential piece rate system. Taylor set a standard output by time study and then paid two rates, the lower rate applying to every piece where the worker fell short of the standard and the higher rate to every piece where he reached or exceeded it, so that the gap between an efficient and an inefficient worker's earnings was made plainly visible.

Correct option 1.

- (iii) An objective is the end the organisation sets out to achieve, stated in terms that can be verified, while a budget is that same intention expressed in figures for a definite period, so that a budget is both a plan and, once the period begins, a standard against which performance is controlled.

Correct distinction, the expression in figures being the point 1.

- (iv) (d) planning. The standard is the expression of what the plan requires, so it is set when the plan is made, and controlling begins only when there is an actual performance to measure against it. This is why planning and controlling are said to be two sides of the same coin.

Correct option 1.

- (v) The dividend decision, by which the company settles the proportion of its earnings to be distributed and the proportion to be retained in the business as ploughed back profit.

Correctly named 1.

- (vi) (a) a depository. It holds the securities in dematerialised form in accounts opened through its participants, and a sale is completed by a debit in the seller's account and a credit in the buyer's, with no certificate changing hands.

Correct option 1.

- (vii) The maturity stage is the stage at which the sales of a product, having grown quickly, level off and grow only slowly or not at all, because almost everyone who will buy it is already buying it and the sales are chiefly replacements. Competition is at its keenest, the firms are many and alike, prices and margins are under pressure, and the firm must spend on promotion and on minor improvements merely to hold the share it has. It is usually the longest stage and the one in which the greatest total profit is earned.

Correct meaning, levelling sales with keen competition and pressure on margins 1.

- (viii) (b) a grievance redressal machinery. The committee is a standing arrangement by which a complaint can be heard and settled within the firm, at a level close to where it arose, before it hardens into a dispute.

Correct option 1.

- (ix) Many a start up with a good article fails because it ran out of cash before the article began to sell. The founder reckoned on the money needed to make the goods and not on the money needed to carry the stock, the credit to dealers and the wages for the months before the receipts came in, so a business that was profitable on paper could not meet its bills. Other acceptable answers are that there was no paying demand of the size assumed, that the article was priced below its full cost, that the founder had no plan for selling and distributing it, or that the venture grew faster than its systems and its people could carry.

One sound reason 1.

- (x) (c) a misleading claim that deceives the buyer. The statement is false, it is made about a matter on which the buyer has no means of checking, and it is made because the buyer attaches value to it and will pay for it, so it

both deceives him and takes business from the competitor whose corresponding claim is true.

Correct option 1.

Question 2 [10]

- (i) Management is a group activity because an organisation is not one person but many, each with his own needs, abilities and purposes, and management exists to bring their separate efforts to bear on a common end. Nothing of any size is achieved by a manager himself, since he works through the people under him, and the result is the result of the group and not of any individual in it. The consequence for the manager is that his task is as much the handling of people as the handling of work. He must see that each member finds the organisation's purpose consistent with his own, and so must inform, train, direct and motivate rather than merely instruct, because an unwilling or an uninformed group will defeat the soundest plan.

Group activity explained, the organisation being many people brought to a common end 1. One consequence for the manager, the handling and motivating of people 1.

- (ii) Authority is the right attached to a post to take decisions, to give orders and to commit the resources of the organisation within a defined field, and to require obedience from those placed under that post. It flows downwards from a superior to a subordinate, it can be delegated, and it rests on the position rather than on the person. Responsibility is the obligation of a subordinate to perform the duty assigned to him and to do it properly. It flows upwards, since the subordinate owes it to his superior, it cannot be passed away by the man who bears it, and it arises from the acceptance of the duty. Authority and responsibility must be kept equal at every post, for authority without responsibility leads to its misuse and responsibility without authority cannot be discharged at all.

Authority correctly explained as the right to decide, flowing downwards and delegable 1. Responsibility correctly explained as the obligation to perform, flowing upwards and not passed away 1.

- (iii) Return on total funds = $16,00,000/80,00,000 \times 100 = 20$ per cent. Interest on the debt = $30,00,000 \times 12/100 =$ Rs 3,60,000. Earnings left for the equity = $16,00,000 - 3,60,000 =$ Rs 12,40,000, and the equity is $80,00,000 - 30,00,000 =$ Rs 50,00,000, so the return on equity = $12,40,000/50,00,000 \times 100 = 24.8$ per cent. The leverage has helped the equity shareholder, because the business earns 20 per cent on its funds while the debt costs only 12 per cent, and the whole of the 8 per cent difference on the borrowed Rs 30,00,000 accrues to the equity, raising its return from 20 per cent to 24.8 per cent.

Return on total funds 20 per cent and interest Rs 3,60,000 1. Earnings for equity Rs 12,40,000, and the correct conclusion that leverage has helped because 20 per cent exceeds 12 per cent 1.

- (iv) A bonus issue is the issue of fully paid shares to the existing shareholders without payment, in proportion to the shares they already hold, made by capitalising the reserves or the accumulated profits of the company. The company receives no money, since nothing comes in from outside, and the effect is merely to convert reserves into share capital, so each holder has more shares and each share is worth proportionately less, his share of the company being unchanged. A rights issue is an issue of new shares offered first to the existing shareholders, in proportion to their holdings and usually at a price below the market price, which they may take up, renounce in favour of another or let lapse. Money does come in to the company, so a rights issue raises fresh capital while a bonus issue does not, and a shareholder who does not take up his rights has his proportion of the company reduced.

Bonus issue correctly explained, with the point that no money is received 1. Rights issue correctly explained, with the point that fresh capital is raised 1.

- (v) Training on the job means training the employee at his own place of work, on the actual machine, material and records he will use, while the work of the firm goes on, the instruction being given by his superior, by an experienced colleague or by a designated trainer. The methods of coaching, understudy, apprenticeship and job rotation all belong to it. One advantage is that there is no problem of transferring what has been learned, since the employee has learned on the very equipment and in the very conditions in which he must perform, so he does not have to adapt a classroom skill to a workshop. A second acceptable advantage is that it costs the firm little, needing no separate premises or equipment, and the trainee produces some useful output while he learns.

Training on the job correctly explained 1. One sound advantage 1.

Question 3 [10]

- (a) First, the top level, made up of the board of directors, the chairman, the managing director, the chief executive and the functional heads of the rank of general manager or vice president. It is answerable to the owners for the whole of the undertaking. It settles the objectives, frames the policies and the strategies, approves the major commitments of capital, appoints the senior staff and represents the firm before the government, the bankers and the public. Second, the middle level, made up of the departmental and divisional managers, the works manager, the branch managers and their deputies. It is the link between the top and the bottom. It interprets the policies made above into departmental plans and targets, assigns the work and the people within the department, trains and motivates the supervisors under it, coordinates with the other departments and reports the results upward. Third, the lower or operational level, made up of the foremen, the chargehands, the supervisors and the section heads. It is in direct contact with the operatives. It allots the day's work, sees that materials, tools and instructions are at hand, maintains the quality and the output, keeps discipline and safety, and carries the grievances and the suggestions of the workmen to the middle level.

Top level with its posts and its work 1. Middle level with its posts and its work 1. Lower level with its posts and its work 1.

- (b) First, the organisational objectives, which are the ends the enterprise itself must achieve if it is to go on existing: survival, by earning enough to cover its costs; profit, which is the reward for the risk taken and the source of the funds for replacement and growth; and growth, since a business that does not grow in a growing economy loses its place. Management must pursue all three together, and a firm that pursues profit this year at the cost of survival the next has failed. Second, the social objectives, which arise because the enterprise draws its land, its labour and its custom from society and owes it a return: supplying goods of a fair quality at a fair price, giving employment on fair terms, using methods that do not damage the surroundings of the place it works in, and contributing to the amenities of that place. Third, the personal objectives of the people who work in the firm, who come to it for their own ends and not for the firm's: a wage they can live on and that rises, conditions that are safe and tolerable, recognition of what they do and a chance of advancement. Management must reconcile these three sets of objectives, which pull in different directions, since a firm that satisfies only the first will lose its people and its standing, and one that satisfies only the third will not survive.

Three objectives, 1 mark each, each named and explained 3. The reconciling of the three, if given, is to be credited within the third mark.

- (c) First, management has a systematised body of knowledge of its own, built up over more than a century, with its own principles, its own concepts and its own vocabulary, which can be set down, taught and learned, as any science can. Second, that knowledge has been arrived at by observation and by experiment rather than by assertion. Taylor's conclusions about the method and the load of a shovel were reached by trying different shovels and measuring the output, and the studies of what motivates people at work rest on observation of actual workplaces. Third, its principles state a cause and effect relationship. The principle of unity of command asserts that where a man has two superiors confusion and indiscipline will follow, and the principle of the division of work asserts that specialisation will raise output, each being a statement of what produces what. Fourth, its principles are capable of being applied again and of being tested, so that a manager in another firm can apply the same principle to similar circumstances and expect a similar result, which is what distinguishes a principle from an opinion. The respect in which it falls short of a pure science is in the exactness of its predictions. Management deals with human beings, who are not uniform as chemicals are and who react to being studied, so the application of the same principle to two apparently similar situations will not give identical results, and the principles must be adapted to the circumstances rather than applied rigidly. Management is for this reason called an inexact or a social science.

Four reasons, 1 mark each 3. The one respect in which it falls short, the inexactness arising from dealing with human beings 1.

Question 4 [10]

- (a) First, functional foremanship. Taylor replaced the single foreman who was expected to know everything by eight specialists, four on the planning side, the route clerk, the instruction card clerk, the time and cost clerk and the disciplinarian, and four on the shop floor, the gang boss, the speed boss, the repair boss and the

inspector, so that the worker takes his instructions on each aspect of his task from the man expert in that aspect. Second, standardisation and simplification of work. Standardisation means establishing one accepted standard for each material, each tool, each machine setting, each working condition and each period of work, so that the output is uniform and performance can be compared against a known measure. Simplification means cutting out from the firm's range the unnecessary varieties, sizes and grades, which reduces the inventory, the setting of machines and the waste. Third, method study, by which the whole sequence by which a job is done, from the receipt of the material to the despatch of the finished article, is examined so as to find the one best way of doing it, the aim being to reduce the handling, the movement and the cost. Time study, motion study, fatigue study and the differential piece rate system are equally acceptable techniques.

Three techniques, 1 mark each, each named and explained 3.

- (b) Remuneration of employees means that the pay and the other benefits given to employees should be just and fair to them and should also be within what the firm can afford. Fayol held that the rate should give the employee a reasonable standard of living, should be in keeping with the rates prevailing for similar work elsewhere, and should so far as possible satisfy both the employee and the employer, since a rate that is unjust breeds discontent whatever else the firm does well. Stability of tenure of personnel means that employees should be kept in their posts for a reasonable period, and that the firm should avoid a high turnover and frequent transfers. Fayol held that a man needs time to settle into a post and to become good at it, and that the cost of the unsettlement is borne by the firm. One consequence of neglecting it is that the firm pays repeatedly for recruitment, selection, induction and training only to lose the man before he has become proficient, so it carries a staff that is permanently inexperienced, its quality and output suffer, its remaining employees are unsettled by the constant coming and going, and the knowledge of its customers and its processes walks out of the gate with each man who leaves.

Remuneration explained, just and fair to both sides 1. Stability of tenure explained 1. One sound consequence of neglecting it 1.

- (c) Centralisation means the concentration of the power of decision at the top of the organisation, so that the lower levels carry out what has been decided above and have little discretion of their own. Decentralisation means the systematic dispersal of that power to the lower levels, so that the man in charge of a unit, a branch or a department decides the affairs of his own charge within the policy laid down. The two are the ends of a scale and not a choice between opposites, since no organisation is wholly one or the other, and the question for a firm is always how far it should go. First, the size of the firm and the spread of its operations. A small firm at one site can be run from the top, but a large firm with units in several places cannot, because the top cannot know the local circumstances and the time taken to refer matters up and down becomes intolerable, so size pushes a firm towards decentralisation. Second, the quality and the training of the subordinate managers. Decentralisation requires men capable of taking decisions and willing to answer for them, so a firm whose middle managers have never been allowed to decide cannot decentralise overnight and must first develop them, while a firm with strong unit heads can safely devolve a great deal. Third, the importance and the cost of the decisions in question. Decisions whose consequences are large and not reversible, such as a commitment of capital or a change in the lines the firm is in, are kept at the top whatever else is devolved, while frequent decisions of small individual value are the first to be pushed down, since the cost of referring them up exceeds the cost of an occasional mistake. The adequacy of the firm's control and reporting system, the uniformity of policy the business requires, and the outlook of the top management itself are equally acceptable factors.

Centralisation and decentralisation correctly explained as the ends of a scale 1. Three factors, 1 mark each 3.

Question 5 [10]

- (a) First, planning reduces the firm's freedom of action. Once a plan has been settled, resources committed to it and departments set to work on it, a manager who sees a better opening is not free to take it, because the men, the machines and the money are engaged, so the plan itself becomes an obstacle to the very adaptation it was meant to make possible. Second, planning may not work in a changing environment. A plan rests on assumptions about what the surroundings will be, and where those surroundings change quickly and unpredictably, in prices, in technology or in the conduct of competitors, the assumptions fail and the plan built upon them becomes useless or worse, since it directs effort towards a situation that no longer exists. Third,

planning does not guarantee success. Managers tend to rely on a plan that has worked before and apply it again to circumstances that are not the same, and the mere existence of a careful plan creates a false confidence that the result will follow, whereas a plan is only an intention and must still be executed. A fourth acceptable limitation is that planning is costly in time, in money and in the attention of senior people, and the cost may exceed the benefit for a small matter; a fifth that it delays action, since a decision that must wait upon a plan may be taken too late; and a sixth that it stifles initiative, because subordinates required to work within a plan drawn up above them cease to think for themselves.

Three limitations, 1 mark each, each named and explained 3.

- (b) The span of management is the number of subordinates who report directly to one superior and whom he can effectively direct, supervise and control. It is not a fixed number, since it depends on the nature of the work, whether it is routine and alike or varied and complex, on the ability and the time of the superior, on the training and the reliability of the subordinates, on how far they are scattered and on how good the firm's systems of reporting are. A narrow span, each superior having few subordinates, produces a tall structure: there are many levels between the top and the bottom, each superior supervises his few men closely, and the firm has a great many managers. Communication from the top to the bottom must pass through all those levels, so it is slow and liable to be distorted, the cost of the managerial staff is high and the subordinate at each level has little discretion, since his superior is watching him. A wide span, each superior having many subordinates, produces a flat structure: there are few levels, so the top is close to the operating level, messages travel quickly and with less distortion, the managerial cost is lower and the subordinate necessarily has a good deal of discretion because his superior cannot watch him. The price is that supervision is thin, so the structure demands competent and self-reliant subordinates, and a superior who is overloaded may become a bottleneck or may neglect the men who need his help most.

Span of management explained, with the factors it depends on 1. Tall structure explained with its consequences 1. Flat structure explained and contrasted 1.

- (c) The steps are these. First, setting the standards of performance, which come out of the plan and which should be stated in measurable terms wherever the work permits, such as a cost a piece, a number of rejects in a thousand or a time for a despatch, with a qualitative standard and a means of judging it where numbers will not serve. Second, measuring the actual performance, objectively and at intervals frequent enough to be useful, by inspection, by report, by sample checking or by personal observation. Third, comparing the actual performance with the standard, so as to find the deviation and, more importantly, its size and its direction. Fourth, analysing the deviation. The manager must distinguish the deviation that matters from the one that does not, find the cause of the one that matters and determine who was responsible for it. Fifth, taking corrective action, which may be a change in the method, the retraining of the men, the repair or the replacement of a machine, or, where the standard itself is shown to have been wrong, the revision of the standard or of the plan. Management by exception is the principle that only a deviation that goes beyond a stated limit should be reported to the manager and should occupy his attention. The firm fixes a permissible range for each standard, and performance within that range is treated as satisfactory and is not reported at all, so the manager sees only the exceptions. The purpose is to save his time and attention for the few matters that are genuinely out of order, since a manager who is sent every figure sees none of them properly, and it also obliges the firm to decide beforehand how large a deviation is serious.

The steps named 1, and given in a correct order with each briefly explained 2. Management by exception explained, with the saving of the manager's attention for significant deviations 1.

Question 6 [10]

- (a) First, to make sure that enough funds are available, in the amounts needed and at the times needed, since a firm that cannot pay for its materials or its wages when they fall due must stop, however profitable it may be on paper, so the forecasting of the requirement and the arranging of the sources beforehand is the first of the objectives. Second, to keep the cost of those funds as low as the circumstances allow, by choosing the right mix of owned and borrowed money and the right instruments, negotiating the terms, and taking advantage of the fact that interest is a charge against profit, because every rupee saved in the cost of capital is a rupee added to the return of the owners. Third, to use the funds so that they earn the best return consistent with the

firm's safety, which means putting the money into the assets and the activities that will yield most, not leaving large balances idle, keeping no more stock and giving no more credit than the trade requires, and disposing of assets that no longer earn. A fourth acceptable objective is to keep the firm's risk within what it can bear, by not taking on fixed obligations of interest and repayment larger than its earnings can comfortably cover, and a fifth, which is the one most often stated as the overriding objective, is to maximise the wealth of the owners over the long term rather than the profit of any single year.

Three objectives, 1 mark each, each named and explained 3.

- (b) First, the stability and the certainty of the firm's earnings. Debt brings with it interest and instalments that must be met whatever the earnings of the year, so a company whose sales and profits are steady and predictable can carry a good deal of debt safely, while one whose trade is cyclical or seasonal must lean on equity, on which nothing need be paid in a bad year. Second, the cost of the two kinds of capital and the return the firm earns on its funds. Debt is the cheaper, both because the lender takes less risk and accepts less, and because the interest is allowed as a charge in computing the firm's tax, so where the firm earns a return on its total funds comfortably above the rate of interest, borrowing raises the return to the equity and the firm should use it. Where the return is below the rate of interest, borrowing reduces the return to the equity, and debt should be avoided. Third, the control the existing owners wish to keep. A fresh issue of equity brings in new shareholders with votes and reduces the proportion held by the present owners, whereas a lender gets no vote, so a closely held company that does not wish to admit outsiders to its decisions will prefer debt up to the limit of prudence. The nature and the saleability of the firm's assets, which determine what security it can offer, the condition of the capital market at the time, the requirements of the law and of the lenders as to the ratio of debt to equity, and the flexibility the firm wishes to retain for future borrowing are equally acceptable factors.

Three factors, 1 mark each, each named and explained 3.

- (c) First, the amount of profit earned and the stability of that earning. A dividend can only be paid out of profit, so the size of the year's earning sets the limit, and a company whose earnings are steady can commit itself to a regular rate of dividend, while one whose earnings fluctuate must keep the rate low enough to be maintained in a poor year, since a dividend once raised and then cut does more damage to the company's standing than a modest dividend steadily paid. Second, the company's own need for funds and the opportunities before it. Retained profit is the cheapest finance a company has, needing no issue, no underwriting and no interest, so a company with a plan to build or a line to add will retain more and distribute less, and shareholders who see the money earning well in the business will usually accept it, whereas a company with no such need has no good reason to hold their money. Third, the state of the company's cash. A profit is not the same thing as cash in hand, and a company whose earnings are locked up in stock and in debts due from its customers may be unable to pay a dividend it has earned, so the dividend must be fixed with an eye on the cash position and on the working capital the coming season will demand. Fourth, the expectations of the shareholders and the pattern of past dividends. A body of shareholders who depend on the dividend for their income will expect it to be regular, and the company's own record creates an expectation it cannot lightly disappoint, so most companies aim at a stable rate and pay anything exceptional as a separate interim or special dividend rather than by raising the regular rate. The legal and contractual restrictions, such as the rules on paying dividend out of reserves and the covenants a lender may impose, and the access the company has to the capital market are equally acceptable factors.

Four factors, 1 mark each, each named and explained 4.

Question 7 [10]

- (a) First, as to the standing of the holder, a shareholder is a part owner of the company, while a debenture holder is a creditor who has lent money to it and has no ownership in it at all. Second, as to the return, a share carries a dividend which is paid only out of profit and only if the directors declare it, and which may be nothing in a bad year, whereas a debenture carries interest at a fixed rate which must be paid whether there is a profit or not and which is a charge against the profit rather than a distribution of it. Third, as to control, the equity shareholder votes at the general meeting and so has a voice in the management of the company, while the debenture holder has no vote and no say in how the company is run, though the terms of his debenture may restrict what the company may do. Fourth, as to security and repayment, a debenture is commonly secured by

a charge on the assets of the company and is repayable on a fixed date, and on a winding up the debenture holder is paid before any shareholder, whereas share capital is unsecured, is not repaid during the life of the company and ranks last of all.

Three points of difference, 1 mark each, each stated for both the share and the debenture 3.

- (b) First, the exchange gives the company's securities a ready and continuous market, which is what makes the securities worth subscribing to in the first place. An investor will part with his money only if he knows he can get it back without waiting for the company to repay him, so a listed company can raise fresh capital on better terms, and from a far wider body of investors, than an unlisted one. Second, the exchange establishes and publishes a price for the company's securities, by the continuous bidding of many buyers and sellers, which tells the company and the world what the market thinks it is worth. That price is the measure by which the company's management is judged, it is the basis on which a fresh issue or a rights issue can be priced, and it is what a bank will look at in valuing the shares offered to it as security. Third, listing raises the company's standing and its visibility, because the exchange admits securities only on conditions, and requires the company thereafter to publish its results, to disclose material events and to observe the requirements of corporate governance. A company that has satisfied those conditions and goes on satisfying them is on that account more readily trusted by lenders, by suppliers and by investors. A fourth acceptable service is that the exchange, with the depository, provides the machinery by which transfers of the company's shares are recorded and settled, which saves the company the work and the disputes of transferring securities itself.

Three services, 1 mark each, each named and explained from the company's point of view 3.

- (c) First, the requirement of full and truthful disclosure. A company inviting money from the public must issue a document setting out its promoters, its objects, its accounts, its existing litigation, the use to which the money will be put and the risks of the business, it must file that document with the regulator, and it is liable for any misstatement in it, so the small investor who cannot investigate a company for himself is given the material on which to judge it and a remedy if it was false. Second, the continuing obligations of a listed company. It must publish its results at stated intervals, announce any material event promptly and treat all its shareholders alike in the matter of information, so that the small holder learns what the large holder learns and at the same time. Third, the prohibition of insider dealing and of the manipulation of prices, with the power in the regulator to investigate, to fine, to debar and to prosecute. The small investor cannot protect himself against someone who trades on information not yet published, or against a group that creates an artificial price in a thinly traded share, so the law makes both an offence and puts an authority behind it. Fourth, the regulation of the intermediaries through whom he must deal. His broker, his depository participant, the registrar to an issue and the mutual fund that holds his money are each registered, bound to prescribed conduct, inspected and required to keep the client's money and securities separate from their own, and there are investor protection and grievance mechanisms, including an arbitration machinery at the exchange and a complaint system with the regulator, by which a small investor can pursue a grievance without going to law. The limits placed on the use of the money collected, the requirement that an issue be fully subscribed before allotment, and the rules on the treatment of minority shareholders in a takeover are equally acceptable protections.

Four protections, 1 mark each, each named and explained 4.

Question 8 [10]

- (a) First, promotion from within, by which a vacancy at a higher level is filled by moving up an employee from the level below it. Second, transfer, by which an employee of the same grade is moved from one department, section or branch to another where he is needed, which fills the vacancy without any change in his rank and is also used to put a man where his aptitude is better suited. Third, the re employment of former employees, such as those who left for a time or were laid off when work was short, and of retired employees taken back on contract for a particular task, who need no introduction to the firm's ways. The recommendation of a present employee, by which an existing employee puts forward a relative or an acquaintance, is also commonly treated as an internal source. The drawback of relying on internal sources alone is that the firm confines itself to the abilities it already has. No fresh outlook, no experience of how other firms do things and no newly trained skill enters the organisation, so its methods go unquestioned and it may find itself unable to take up work of a kind nobody inside has done. A closed firm of this sort also tends to promote by seniority rather than

by merit, which discourages its abler people, and in a growing firm the internal sources simply cannot supply the numbers required.

Three sources, 1 mark each 2. One sound drawback of relying on them alone, resting on the absence of fresh ability or outlook 1.

- (b) First, pay and allowances, that is the basic wage or salary with the allowances attached to it, which is the foundation of every other incentive because it meets the employee's needs for food, housing and the support of his family, and because an employee who believes his basic rate to be unfair will not be moved by anything else the firm offers. A rise given on merit, as distinct from the general revision, is itself an incentive, since it tells the man that what he did was noticed. Second, a bonus or incentive payment tied to performance, whether a piece rate or a premium above the standard output for the individual, a bonus on the output of a group or a share in the profit of the year for everyone. Its force lies in the direct connection between what the employee does and what he receives, and its danger is that a payment tied to a single measure, such as quantity, will be earned at the cost of something not measured, such as quality, so the measure must be chosen with care. Third, retirement benefits and the benefits paid in sickness and distress, such as the firm's contribution to the provident fund, the gratuity payable on leaving, the pension and the medical and insurance cover. These work differently from the first two, in that they are not felt from month to month but give the employee a security about his future and his family that keeps him with the firm. The co-partnership or stock option scheme, by which the employee is given or offered shares in the company and so an interest in its prosperity, and perquisites such as a house, a vehicle or subsidised schooling, are equally acceptable financial incentives.

Three financial incentives, 1 mark each, each named and explained 3.

- (c) First, he determines the size and the shape of the force and recruits it: how many salesmen are needed, how the territory is to be divided among them, whether they are to be organised by area, by line of goods or by class of customer, and what sort of man each post requires, and he then selects them, since a field salesman works unsupervised and the selection must bear that in mind. Second, he trains them, in the goods themselves and their technical points, in the firm's terms of sale and credit, in the handling of an objection and the closing of a sale, and in the paperwork of the order and the collection, and he goes on training them as lines and conditions change, often by accompanying a salesman on his calls. Third, he sets the targets and the territories and allots the work: the quota of each man for the period, the customers he is to call on and how often, the new accounts he is to open, and the expense within which he is to work. These are the standards against which his force will be judged, and they must be set at a level that is demanding and attainable, since a quota nobody can reach destroys the force's belief in the whole system. Fourth, he motivates and supervises the force, which in field selling is the hardest part of his work, since the salesman is alone, is refused many times a day and is not watched. The manager must keep in touch with each man, go out with him, see that the compensation and the commission reward the right things, use contests, recognition and promotion, settle the grievances about territory and expenses, and support him with the literature, the samples and the prices he needs. Fifth, he controls and evaluates, comparing each man's sales, his calls, his new accounts, his expenses and his collections against the targets set, finding why a man or a territory is behind and correcting it by retraining, by redrawing a territory, by altering a target or, where it is necessary, by replacing the man. Any four of these are acceptable.

Four functions, 1 mark each, each named and explained in terms of the management of a field force 4.

Question 9 [20]

- (a) Washer line. The standard for four months = $80,000 \times 4 = 3,20,000$ pieces. Actual production = 2,56,000 pieces. Shortfall = $3,20,000 - 2,56,000 = 64,000$ pieces, that is a shortfall of 20 per cent on the standard, since $64,000/3,20,000 \times 100 = 20$. Bolt line. The standard for four months = $30,000 \times 4 = 1,20,000$ pieces. Actual production = 1,36,000 pieces. Excess = $1,36,000 - 1,20,000 = 16,000$ pieces, that is an excess of 13.33 per cent on the standard. Excess cost on the washers produced. The standard cost is Rs 2.40 a piece and the actual cost was Rs 2.85 a piece, so the excess is $2.85 - 2.40 = \text{Rs } 0.45$ a piece. On the 2,56,000 pieces actually produced the excess cost = $2,56,000 \times 0.45 = \text{Rs } 1,15,200$. The company has therefore produced 64,000 washers fewer than it planned and has paid Rs 1,15,200 more than the plan allowed for the

smaller quantity it did produce, which is the measure of the failure on that line. The excess of 16,000 bolts is not a gain to be set against it, since the bolt line is a separate line with its own customers, and an output above the plan means that material, machine time and labour have been committed to pieces the plan did not require and may not be able to sell.

Washer standard 3,20,000 and shortfall 64,000 pieces 1. Shortfall expressed as 20 per cent of standard 1. Bolt standard 1,20,000 and excess 16,000 pieces 1. Excess cost a piece Rs 0.45 1. Total excess cost Rs 1,15,200 1.

- (b) The steps of controlling are, first, the setting of standards of performance drawn from the plan and stated so far as possible in measurable terms; second, the measurement of the actual performance by inspection, report or observation; third, the comparison of the actual with the standard so as to find the deviation and its size; fourth, the analysis of the deviation, to separate the significant from the insignificant, to find its cause and to fix responsibility; and fifth, the taking of corrective action, which may be action upon the performance or, where the standard is shown to be wrong, a revision of the standard or of the plan. Kaveri Fastenings has set its standards: the plan fixes 80,000 washers a month, 30,000 bolts a month and a cost of Rs 2.40 a washer, and these are measurable standards of the right kind. It has also measured its actual performance, since the works manager prepares a monthly return and the figures of 2,56,000 pieces and Rs 2.85 a piece plainly exist. The step at which it has failed is the third, the comparison of the actual performance with the standard, and with it the reporting that makes comparison possible. The monthly return goes to the accounts department, which files it and consolidates it once a year, so the figure is measured and then buried. Nobody sets the 2,56,000 against the 3,20,000, nobody sets the Rs 2.85 against the Rs 2.40, and the deviation therefore exists in the records for four months without existing in anybody's mind. Because the comparison is never made, the two steps that follow it cannot happen either: no deviation is analysed, so the three causes are not discovered until Dhruv enquires in the fifth month, and no corrective action is taken, so the worn die goes on producing rejects for about six weeks and the purchase officer goes on buying at the higher price. The fact that Dhruv learned of the shortfall from a customer, and not from his own records, is the proof of the failure: the information was in the house all along and the control system did not deliver it.

The five steps correctly named and briefly explained 2. The failure located at the comparison step, with the reason that the return is filed and consolidated yearly 1. The point that the standards were set and the performance measured, so the failure is not at those steps 1. The consequence that analysis and corrective action could not follow, with the worn die or the purchase officer used as the illustration 1.

- (c) The three causes are of three different kinds and must be dealt with differently. The interruption of the power supply to the press shop is a cause outside the company's control which, as the case states, nobody could have foreseen when the plan was drawn. Nothing is gained by holding anyone answerable for it. What should follow is, first, a revision of the standard for the affected months rather than a pursuit of a man, since a standard that assumed uninterrupted power is simply the wrong standard once the power has failed; and second, action to reduce the exposure, by arranging standby power for the press shop or at least for the stamping presses, by scheduling the lines so that an interruption can be made up on the remaining shifts, and by carrying a buffer stock of washers sufficient to cover a few days of stoppage, since the customers' consignments were short and the loss is a loss of custom and not merely of output. The rise in the price of the steel strip is a cause outside the company's control which was reported to nobody because, as the case says, no one had asked the purchase officer to report it. That is not the purchase officer's fault but a gap in the company's system, and the remedy is to make it somebody's defined duty: the purchase officer should be required to report every movement in the price of a principal material at once and in writing, with its effect on the cost a piece, and he should not be free to continue buying at a materially higher price without a sanction. The company must then decide what to do about the cost, whether to absorb it, to revise the price it charges its tractor and pump customers, to seek a different supplier or grade, or to buy forward, and it must revise the standard cost of Rs 2.40, which is now out of date and against which no useful comparison can be made. The worn die is the one cause that lay wholly within the company's control and the most serious of the three. It was reported by the operator to his chargehand, so the information reached the supervisory level and stopped there, the chargehand deciding on his own that a die producing a high proportion of rejects could wait until the annual shutdown. He should not have had that discretion, and the remedy has three parts: a standing instruction that a defect affecting quality or output is to be reported upward on the day it is found, whatever the

chargehand's own view of its urgency; a maintenance schedule under which dies are inspected and changed on a measured basis of pieces produced rather than at an annual shutdown; and a rejection figure reported daily or weekly for each press, because a high proportion of rejects would have shown itself in that figure within days and would have disclosed the worn die without anyone having to report it. The system of planning and control to be put in place is this. First, the yearly plan should stay, but as a statement of the year's objectives and its capital and material requirements, not as a fixed schedule settled at a single sitting and not reopened. It should be broken into quarterly and monthly plans for each of the three lines, and it should be reviewed, and where necessary revised, at the end of each quarter against what has actually happened, so that a failure of power or a rise in the price of steel is taken into the plan instead of silently invalidating it. Second, the standards should be stated for each line and each month in terms that can be measured: the output in pieces, the cost a piece, the proportion of rejects, the consumption of material a thousand pieces and the despatches against orders. Third, the reporting must be redirected. The works manager's monthly return should go to Dhruv as well as to accounts, and it should carry the actual figure, the standard figure and the difference side by side, so that the comparison is made in the document itself and cannot be missed, with the key figures of output and rejects reported weekly and anything out of the ordinary reported at once. Fourth, Dhruv should apply management by exception, fixing for each standard the deviation he regards as tolerable, say three per cent on output and two per cent on cost a piece, so that he is shown only what falls outside the band and is not buried in figures, while anything outside it comes to him with its cause and the action proposed. Fifth, responsibility for each standard should be fixed on a named person, the works manager for output and rejects, the purchase officer for material prices and the chargehands for the condition of the tooling, so that there is someone to answer for a deviation and someone with the duty to report it. Sixth, the departmental heads should take part in drawing the plan rather than receiving a copy of it, since a works manager who has set his own monthly figure will report against it, and a purchase officer who has been told what cost the plan assumes will know that a rise in the price of steel is news.

Power failure treated as an uncontrollable cause, with the standard revised and the exposure reduced 2. Steel price treated as a gap in the system, with a defined duty to report and the standard cost of Rs 2.40 revised 2. Worn die treated as the controllable cause, with the chargehand's discretion removed and a maintenance or rejection reporting remedy 2. The yearly plan broken into shorter periods and reviewed, with measurable standards for each line 2. Reporting redirected to Dhruv with actual against standard, management by exception, and responsibility fixed on named people 2. Where the answer sets out a control system correctly but does not deal with the three causes separately, award no more than 5 for the part.

Question 10 [20]

- (a) Maithili's high piece rate has not kept her senior people because money was never what was missing. Her rates are about a fifth above the two other workshops in the town, and the proof that pay is not the issue lies in where two of the four leavers went: to the newer rival workshop, which pays less, and one of them took a post as a design supervisor. A man does not move to lower pay for the sake of the money, so what drew him was the title, the charge of other people's work and the recognition that went with it, none of which was available to him at Barsana Threadworks however long he stayed. On a recognised view of what motivates people at work, the needs of an employee may be ranked, the lower ones requiring to be satisfied before the higher ones begin to operate at all. The basic physiological and the safety needs are met by a wage and by steady work, and Maithili meets them better than anyone in the town, which is precisely why they have ceased to motivate: a need once satisfied no longer moves the man who has it. The needs above them she does not meet. The social need, the wish to belong to a group and to be consulted as part of it, is unmet in a workshop where no meeting of the staff is ever held. The need for esteem, for standing among one's fellows, for a title, for the acknowledgement of good work and for being treated as someone whose judgement counts, is unmet where every question of design is settled by the owner and an idea brought to her is turned away. And the need for self fulfilment, for the use of a person's own creative capacity, is the very need an experienced designer or master embroiderer of eleven years' standing would feel most strongly, and it is exactly the one Maithili has closed off. It can equally be put the other way: pay and conditions are hygiene factors, which cause dissatisfaction when they are poor but do not produce positive motivation when they are good, whereas recognition, responsibility, advancement and the nature of the work itself are the factors that motivate, and

Maithili has provided only the first set. What her senior staff are not getting, in short, is recognition, responsibility and a path of advancement within her workshop.

The high rate shown not to be the issue, using the move to the lower paying rival and the supervisor's post 1. The ranking of needs, with satisfied lower needs ceasing to motivate 1. The social need unmet, with the absence of any staff meeting 1. The esteem need unmet, with the title, recognition or the settling of all design by Maithili 1. The need for self fulfilment unmet in experienced designers, or the hygiene and motivator distinction correctly applied 1.

- (b) The piece rate as she has fixed it rewards one thing only, the number of pieces completed, and the rate varies with the difficulty of the design but not with how well the work has been done. An embroiderer is therefore paid the same for a border finished quickly and imperfectly as for one finished slowly and exactly, so every minute spent getting a border right costs him money and earns him nothing. The staff have worked this out for themselves, and the case records them saying so: since the finisher sends back only some of what is wrong, the expected cost of hurrying is less than the certain cost of care, so the rational course for a man paid in this way is to work fast and let the finishing table catch what it catches. The incentive is thus producing exactly the behaviour it rewards, and the rise in rework is not a lapse of discipline but the predictable result of the scheme. The fault is compounded by the fact that the rework itself carries no consequence for the man who caused it, so the cost of his haste falls on the firm and on the finishers and not on him. What is wrong with her answer to an embroiderer who brings her an idea is, first, that it kills the only source of new design she has besides herself, which is the very thing her third difficulty is about. She lost the handicraft chain's order because she could offer two new designs where four quarters needed more, and she has eleven designers and master embroiderers whose ideas she has been turning away for years. Second, the answer is not even true as stated. Exporters and a retail chain buy what they are shown, and what they are shown is whatever the workshop chooses to put before them, so the claim that they buy only what they are shown is an argument for showing them more, not for showing them only Maithili's work. Third, the manner of the refusal does the damage. An embroiderer who offers an idea is offering more than the firm pays him for, and to be told that his judgement is irrelevant to the business teaches him that initiative is unwelcome, which is how a master embroiderer comes to feel that a supervisor's post at a lower paying workshop is worth having. The refusal therefore feeds both the first difficulty and the third.

The piece rate shown to reward quantity alone, so care costs the worker money 1. The workers' own reasoning used, that the finisher catches only some of what is wrong 1. The point that the cost of rework falls on the firm and not on the man who caused it 1. The refusal of ideas shown to cause the loss of the chain's order, with the two designs against the quarterly requirement 1. The refusal shown to be wrong in its reasoning, or its effect on initiative and on the leaving of senior staff 1.

- (c) The measures fall under four heads. First, on the structure of the work and of the posts. Maithili should create a layer of senior posts with real content: one or two design supervisors or master craftsmen, each with a title, a charge over a group of embroiderers, responsibility for the quality of that group's work and a differential in pay to mark the post. Each should be given a defined field in which he decides without reference to her, the choice of thread and colour within an approved palette, the allocation of work within his group and the passing or rejecting of a piece. She should also establish a path by which an embroiderer can see himself becoming a senior embroiderer and then a supervisor, with the requirements stated, so that advancement within her workshop becomes visible. This directly answers the first difficulty, since the man who left for a supervisor's post at lower pay would have had no reason to go had such a post existed here, and the seven senior people who remain are at present in exactly his position. Second, on design and the use of her people's ideas. She should set up a regular arrangement for new designs, a design meeting each month at which any embroiderer may bring a border, a motif or a colour scheme, with a small payment or a share of the order for a design that is adopted and the designer's name attached to it in the workshop. She should delegate whole designs to the senior people, giving each a brief and a date rather than a pattern to copy, and she should keep for herself the approval of what is shown to a buyer rather than the making of every design. This answers the third difficulty directly: the handicraft chain wanted fresh designs each quarter and she could offer two, and eleven designers working to briefs will produce many more than one owner can, while the second difficulty is eased as well, because an embroiderer who designed a border has a reason to want it executed properly. Third, on the payment scheme. She should keep the piece rate, since it suits the work and her people are used to it, but she

should stop paying for quantity alone. The rate should be payable only on a piece passed at the finishing table at the first presentation, with a lower rate or no rate for a piece that comes back for rework, so that the cost of haste falls where the haste occurred. She should add a quality bonus for a group or a table whose rework stays below a stated proportion over a month, which enlists the group in watching its own work and gives the new supervisor something to manage. She should publish the rework figure by group each week, because a figure nobody sees is a figure nobody acts on, and she should keep the overall earnings of a careful worker at least at their present level, since the object is to redirect the incentive and not to cut the pay. This answers the second difficulty at its root. Fourth, on the things that cost little and are at present wholly absent. She should hold a meeting of the staff, monthly, at which the orders in hand, the rework position and the coming season are discussed and at which people may raise what they wish, which meets the social need and gives her the grievances before they become resignations. She should train deliberately rather than by apprenticeship alone, since about half her embroiderers and finishers joined within the last three years and are the likeliest source of poor work, and the senior people are the natural instructors, which gives them a further mark of standing. She should recognise good work publicly, by name, which costs nothing and is the thing her staff have least of. And she should add the ordinary benefits a workshop of sixty five can afford, so that pay is not the only tie. Taken together these measures meet all three difficulties, and it is worth noting that they meet them from the same cause: the senior people leave, the rework rises and the designs run short because every judgement in the workshop is reserved to the owner, and the remedy in each case is to give the work, the decisions and the credit to the people who do it.

Senior posts created with a title, a charge and a defined field of decision, and a visible path of advancement, tied to the first difficulty 2. A regular arrangement for taking and rewarding designs from the staff, and the delegation of whole designs, tied to the lost chain order 2. The piece rate altered so that it is payable on work passed at the first presentation, with a quality bonus and published rework figures, tied to the second difficulty 2. Staff meetings, training of the newer half of the workforce by the senior people, and public recognition 2. The three difficulties each shown to be met, and the common cause identified as the reservation of all judgement to the owner 2. Where the measures are sound but no connection is made to the four leavers, the rework or the lost order, award no more than 5 for the part.