

CHAPTER – 14

DECISION MAKING

Introduction:

Decision-Making is a process in which a final outcome is derived by evaluating and analysing the given data.

The objective of “Decision-Making” is to reach a certain conclusion from the given information or a given set of conditions.

In the examples and the questions that follow, a set of rules/conditions is specified as a selection criteria. This is followed by some cases, each comprising of qualifications/details of a candidate. Based on the given criteria, each case is evaluated and a specified decision is taken. For example, an applicant may have to comply with the selection criteria for the requirement of a Sales Representative in a company. His details given in the case are matched with the given criteria.

In the selection criteria, we can divide the given conditions into two parts –

- (i) Basic conditions, and
- (ii) Alternate conditions.

These can be explained with the help of following example.

Let us say there is a requirement for Sales Representatives in a company, and Mr. XYZ applies to this company, submitting the required details. There is a criteria specifying that the age of the applicant should not exceed 25 years, whereas Mr. XYZ is 28 years old. So, clearly this Basic condition is violated, but then, there is an alternate condition specified, which says that, “In case the applicant's age is above 25 years, but has a relevant experience of at least 3 years in Sales of Consumer Goods, then his case may be referred to the Director-Marketing”. Now, if Mr. XYZ has the experience specified in this “Alternate Condition”, then he may be referred to the Director-Marketing. The choice corresponding to this decision shall be marked as answer.

Hence, for any case, a person/candidate/applicant is selected only when his or her details (given) comply with the basic conditions. If any basic condition is violated or not satisfied, its respective alternate condition (if available) is applied. On the basis of compliance (or non-compliance) with this alternate condition, the specified decision is taken, and relevant answer is marked.

The decision about the selection of a candidate must be taken in strict adherence with the given conditions / criteria, and nothing should be presumed. In case, no data is provided by the applicant for a specified condition, which is mandatory in taking a decision for selection, then mark the choice containing “data inadequate”, as your answer.

It is important to go through the following examples before attempting the exercise.

Examples:

Directions for questions 1 to 6: Study the conditions given below carefully and answer the following questions, according to these conditions:

Following are the conditions specified for the recruitment of Directors in various management colleges:

- (1) The candidate should have a work experience of at least 20 years in the same institution and should have a minimum age of 55 years.
- (2) The candidate should have obtained at least 60% in XII standard and 65% in degree exams.
- (3) The candidate should be conversant with the local language.
- (4) The candidate should be elected by the faculty members of the college with a majority of at least 2 : 1.
- (5) The candidate should have a total work experience of at least 25 years.

In case a candidate satisfies all the conditions given above, EXCEPT

condition (4) alone, then refer the case to the Vice Chancellor of the University.

condition (1) alone, but has got a total experience of 30 years, then he should be selected.

condition (3) alone, refer the case to the Chancellor.

condition (2) alone, but has a Ph.D., then he can be selected.

On the basis of the above, for each of the questions that follow, mark your answers as

- (A) If the candidate is chosen as the Director of the institute.
- (B) If the case is referred to the Vice Chancellor.
- (C) If the case is referred to the Chancellor.
- (D) If a decision cannot be taken on the basis of the data available.
- (E) If the person is not selected.

14.01. Mr. Jahangir has been working in the college for which he applied for the Director's post for the past 20 years. He does not know the local dialect. He has done his Ph.D. in Sociology and was elected by the college faculty lecturers with a majority of 5 : 1.

Sol. Since there is no mention of Mr. Jahangir's age, we cannot decide. Hence, answer choice (D) [Please note that we cannot eliminate him on any other grounds. If he is not eligible on the basis of any other condition, then we would have decided the answer as (E) even though we do not know his age].

14.02. Mrs. Sharma has 57% in her XII standard and has 79% in her degree exams. She joined the college, for which she applied for the Director's post, when she was 25 years old and now she is 55 years of age. She is a postgraduate. She knows the local language and has been elected unanimously by the college faculty members.

Sol. The academic record of Mrs. Sharma is not according to condition (2). The alternate condition for (2) is also not satisfied because she does not have Ph.D. Hence, she cannot be selected.

Choice (E)

14.03. Mr. Dixit started working at the age of 18 and has worked for IIM Calcutta for a period of 18 years and after that, joined the college 19 years ago, to which he has applied for the Director's post. While working at IIM, Calcutta, he did his Ph.D. in Public Systems Management. However, he has a bad academic record with only 50% in his intermediate. He knows the local language and has been elected by the faculty members of his college with a 5 : 2 majority.

Sol. Although Mr. Dixit does not satisfy condition (2), he has a Ph.D., hence the alternate condition is satisfied. As far as his age is concerned, it appears that we do not have information, but we can find out his age as $18 + 18 + 19$, i.e. 55 years (he joined IIM Calcutta at the age of 18, worked for 18 years and then worked for another college for 19 years). Even though he has not worked for 20 years in this college, he has 37 years of experience and, hence, he can be selected.

Choice (A)

14.04. Mr. Ronaldo, who is 58 years old, is from the neighbouring state of Maharashtra and has been working in this college for the past 22 years. He had also worked in Maharashtra for a period of 10 years. He is a relative of Mr. Chocho, the governor of the state. He scored 70% in his degree and 60% in Standard XII. He was elected with a majority of 10 : 1 by the faculty members of the college. Apart from English, the only other language he knows is the language of his native state.

Sol : Mr. Ronaldo satisfies all the conditions except (3). Hence, his case has to be referred to the Chancellor.

Choice (C)

14.05. Mrs Sheila has been in her post as a senior lecturer for the past 15 years. As a rule, in the entire state, any person should work for at least 15 years as a junior lecturer in any college in the state to become a senior lecturer in any college in the state. She has a Ph. D. and is in her late 50s and is thus respected by one and all. She was elected by the faculty members of the college as the candidate for the post of the Director with a majority of 3 : 2. She knows many languages including the local language. It is known that the only way of entering this particular college is as a junior lecturer. It is also known that she has scored 80% in both her XII standard and degree exams.

Sol. Miss Sheila satisfies all the conditions except the majority of 2 : 1. Hence, the case should be referred to the Vice Chancellor. Choice (B) [Please note that since this college requires a person to work as a junior lecturer in the same college, she worked for 30 years in the same college.

14.06. Mr. Kiran has a record of more than 80% throughout his academic career. He has been working in the present institution for 20 years. After working elsewhere for 5 years, he joined the present institution. He does not know the local language. However, he has done his post graduation in English and got a majority of 6 : 1 from the faculty members of his college. He had started working since he was 25 years.

Sol. Mr. Kiran does not satisfy the minimum age criterion (because, he started working at the age of 25, worked elsewhere for 5 years and then in the present institution for 20 years which means he is now 50 years old). He does not have 30 years of experience to make up for the above. Hence, he cannot be selected.

Choice (E)

Directions for questions 7 to 11: Study the conditions given below carefully and answer the questions that follow, according to these conditions:

Following are the conditions, laid down for a group of six friends, to choose a picnic spot. If they cannot go to Kashmir or Ooty or Matheran, then they stay at home.

- (1) The average age of the group should be more than 21 years to go to Kashmir.
- (2) If there are exactly 3 boys and 3 girls within the group, then they must go to Kashmir.
- (3) If the total cash with the group is less than ₹5,000, they stay at home and do not go anywhere.
- (4) They go to Ooty only if there are exactly 2 boys and 4 girls in the group.
- (5) Each of them should have finished his/her final exams before going on a picnic.

In case, condition 3 alone is violated, but one of them has a car or they can get free hotel accommodation, then ₹1,000 out of the total expenses can be saved in each of the two cases.

condition 5 alone is violated, but none of them have final exams in the next two months, they go to Matheran, which is closer.

On the basis of the above, for each question that follow, mark your answer as:

- (A) if the friends can go to Ooty.
- (B) if the friends can go to Kashmir.
- (C) if the friends can go to Matheran.
- (D) if the friends stay at home.
- (E) If a decision cannot be taken on the basis of the data available.

14.07. Six friends decide to go on a picnic and their average age is 20. They have a car and cash amounting to ₹4,000. All of them have finished their exams. There are 2 boys and 4 girls in the group.

Sol. Neither condition (1) nor (2) is satisfied, hence they cannot go to Kashmir. Though condition (3) is not satisfied, alternate condition for (3) is satisfied. Since they have a car, conditions (4) and (5) are satisfied. Hence, they can go to Ooty.

Choice (A)

14.08. Two boys and four girls, having an average age of less than 21 years, decide to go out and they have ₹4,500 with them. They have a car as well as free hotel accommodation. Three of them have not finished all their exams.

Sol. They cannot go to Ooty or Kashmir because some of them have not completed their exams. However, whether they can go to Matheran or not cannot be concluded from the data given to us, since we do not know as to when their exams will be conducted. Hence, we cannot conclude on the basis of the data given to us.

Choice (E)

14.09. Six friends (3 boys and 3 girls), with an average age of 22 years, have decided to go on a picnic, having finished their final exams, and they have ₹10,000 among them.

Sol. Conditions (1), (2), (3) and (5) are satisfied. Hence, they can go to Kashmir.

Choice (B)

14.10. Two boys and four girls have only ₹3,000 between them. The parent of one of the friends is arranging accommodation for them and another parent is providing a car. All the friends have finished their exams and the average age of the friends is 20 years.

Sol. Conditions (1) and (2) are not satisfied. Hence, they cannot go to Kashmir. Though condition (3) is not satisfied, the alternate condition is satisfied. Their expenses have reduced to ₹3,000 owing to free accommodation and car, hence condition (4) and (5) are satisfied. Hence, they can go to Ooty. Choice (A)

14.11. Two boys and four girls, having an average age of 19 years and ₹5,800 cash, decide to go on a picnic. Only two of them have finished their exams and the rest have their exams four months from now.

Sol. Conditions (1) and (2) are not satisfied. Conditions (3) and (4) are satisfied. Though condition (5) is not satisfied, the alternate condition for (5) is satisfied. Hence, they can go to Matheran. Choice (C)

Exercise – 14

Directions for questions 1 to 8: Study the following information carefully and answer the questions given below.

A reputed FMCG Company decided to recruit a marketing manager for their operations in India.

The following is the selection criteria:-

The candidate must

- (i) be an Indian citizen.
- (ii) be a graduate with a minimum of 60% marks.
- (iii) have done an M.B.A or a diploma course in Marketing with a minimum of 55% marks.
- (iv) have at least two years experience in an FMCG company as a marketing manager.
- (v) be not less than 25 years of age and not more than 30 years as on 01.01.2005.

However, if a candidate fulfils all other criteria except.

- (P) condition (ii) above but has secured 65% marks or more in M.B.A and also has at least three years experience as a marketing manager in an FMCG company, then he is referred to the Chairman.
- (Q) condition (iii) above but has an experience of over 5 years as a marketing manager in an FMCG company, he is to be selected.
- (R) condition (iv) above but has done his M.B.A from a reputed institution with more than 60% of marks, he is considered for the post of a probationary marketing officer.

Based on the above criteria and information provided against each candidate take a decision in each case. You are not to assume anything. If the data given is not adequate to take a decision, mark your answer as data inadequate.

Give answer

- (A) if the candidate is to be selected.
- (B) if the candidate is to be referred to the chairman.
- (C) if the candidate is considered for the post of a probationary marketing officer.
- (D) if data is inadequate.
- (E) if the candidate is to be rejected.

1. Sravan, an Indian citizen was 28 years of old as on 25th July 2004. He has secured 65% marks in the graduation and 58% marks in M.B.A. He is working in an FMCG company as a marketing manager for the last three years.
2. Ashank has secured 68% marks in his graduation. He is an Indian citizen, 29 years old as on 5th November 2004 and is working as a marketing manager in an FMCG company since 1st April 1997.
3. Vijay Varma was born on 12th August 1977. He secured 65% and 60% marks in his graduation and M.B.A. respectively. He has been working as a marketing manager in an FMCG company for the last three years.
4. Pranay is an Indian citizen born in 1978. He completed his M.B.A with 68% marks and has been working in an FMCG company for the last four years.
5. Sri Vidya, an Indian girl born in 1976, has completed her graduation with 72% marks and her M.B.A. with 58% marks and has been working in an FMCG company for the last 6 months.
6. Anirudh, an Indian citizen born in 1978, has a consistent academic record with more than 70% marks. He did his M.B.A from a reputed institution and he has no experience as a marketing manager.

7. Rahul who was born in 1977, has completed both his graduation and M.B.A with 60% marks and has been working as a marketing manager with an FMCG company for the last three years.
8. Sourav, is 27 years old as on 23.07.03, and has completed his graduation with 62% marks and has a diploma in Marketing with 60% marks. He has been working as a marketing manager for 3 years with one of the leading FMCG company and he is an Indian citizen.

Directions for questions 9 to 16: Study the following information carefully and answer the questions given below.

Following is the criteria for granting admission to the candidates into the post-graduate course in Fashion Technology.

The candidate must

- (i) have completed graduation in Fashion Technology, with at least 60% marks.
- (ii) not be more than 30 years of age as on 01.06.2004.
- (iii) have obtained at least 50% marks in the entrance examination.
- (iv) pay a sum of ₹50,000 at the time of admission as course fee.

However, if a candidate fulfils all the other criteria except

- (P) condition (i) above but has secured minimum 50% marks in graduation in Fashion Technology and can pay an amount of 1,00,000 (including the course fee) towards development fund, he is referred to the Chairman.
- (Q) condition (ii) above but is less than 35 years old and has at least three years of industry experience, he is referred to the Principal.
- (R) condition (iii) above but has secured more than 75% marks in the graduation in Fashion Technology, he is referred to the Principal.
- (S) condition (iv) above but can pay ₹5000 per month for all the twelve months in an academic year, he is referred to the Chairman.

Based on the above criteria and information provided for each candidate, take a decision in each case. You are not to assume anything. If the data given is not adequate to take a decision, mark your answer as data inadequate.

Give answer

- (A) if the candidate is to be admitted.
 - (B) if the candidate is to be referred to the Chairman.
 - (C) if the candidate is to be referred to the Principal.
 - (D) if the data is inadequate.
 - (E) if the candidate is to be rejected.
9. Vivek has completed his graduation in Fashion Technology with more than 50%. He was 28 years of age as on 01.01.2004 and scored 60% in the entrance test and is ready to pay ₹50,000.
 10. Ratur has completed his graduation in Fashion Technology with 62% marks and cleared the entrance test with 55% marks. He was born in 1976 and can pay the stipulated amount, of ₹50,000.

11. D'Souza, a 27 years old girl as on 1st, January 2003, has completed her graduation in Fashion Technology with 55% of marks and cleared the entrance test with the same percentage of marks. She is ready to pay the amount of one lakh towards development fund.
12. Ujjal who was born in 1971, has completed his graduation in Fashion Technology with 60% of marks and scored 62% of marks in the entrance test. He has been working as a Fashion Designer for the last 4 years and he can pay the admission fee of ₹50,000.
13. Girish has completed his graduation with 70% marks and was born in 1978. He got 60% in the entrance test and is ready to pay the fee of ₹50,000, at the time of admission.
14. Sri Vidya has completed her graduation in Fashion Technology with 85% marks and she is the topper in the entrance test. She is 28 years old as on 1-6-2004, but she can not pay any fee.
15. Karthikeyan a 27 year old as on 1-6-2003, has completed his graduation in Fashion Technology with 55% marks and he scored 58% in the entrance test. He is ready to pay the fee of ₹1 lakh towards development fund.
16. Akash Deep has completed his graduation in Fashion Technology with 62% marks and has cleared the entrance test with 57% marks. He is 26 years old by 1st July 2003 and can pay ₹50,000, at the time of admission.

Directions for questions 17 to 24: Study the following information carefully and answer the questions given below.

Indusland a leading BPO decided to recruit Help Desk Engineers. The following is the selection criteria.

The candidates must

- (i) be a diploma holder or an Engineer.
- (ii) be an Engineer with at least 60% marks or a diploma holder with at least 70% marks.
- (iii) have experience in hardware engineering, and networking.
- (iv) have an aptitude for troubleshooting of desktops / palmtops / laptops.
- (v) have at least two years of similar experience in a BPO.
- (vi) have excellent communication skills in English.
- (vii) be willing to work in shifts.

However, if a candidate fulfils all other criteria except

- (P) (ii) but has over five years of similar experience in a BPO, then he/she is referred to the Chief Operating Officer.
- (Q) (v) but has a consistent academic performance of more than 75%, he/she is to be considered for the post of Trainee Help Desk Engineer.

Based on the above criteria and information provided about each candidate, take a decision in each case. You are not to assume anything. If the data given is not adequate to take a decision, mark your answer as data inadequate.

Give answer

- (A) if the candidate is selected as an Help Desk Engineer.
- (B) if the candidate is rejected.
- (C) if the candidate is referred to the Chief Operating Officer.
- (D) if the candidate is selected as a Trainee Help Desk Engineer.
- (E) if the data is inadequate.

17. Asra Das completed her Engineering with 65% marks and has experience in hardware engineering and networking. She has very good communication skills in English and is willing to work in shifts. She has three years of similar experience in a BPO and an aptitude for troubleshooting of laptops.

18. Sanjay, a diploma holder with 76% of marks, has experience in hardware engineering and has an aptitude for desktop trouble shooting. He has a similar work experience in a BPO for the last four years and has excellent communication skills in English. He is willing to work in shifts.

19. Akash Menon is a fresh Engineering graduate with a consistent academic performance of above 80%. He has experience in hardware engineering and networking. He has an aptitude for troubleshooting of palmtops. He is willing to work in shifts. He has excellent communication skills in English.

20. Ravi, a Engineering graduate with more than 55% marks, who has experience in networking and hardware engineering is very good at English communications. He has an aptitude for troubleshooting of laptops and he has three years similar experience in a BPO. He is willing to work in shifts.

21. Smriti, an Engineering graduate with 52% marks, has experience in networking and hardware engineering. She has an aptitude for trouble shooting of desk tops and has similar experience in a BPO for six years. She is willing to work in shifts and she has excellent communication skills in English.

22. Gargi who has excellent communication skills in English, is a diploma holder with 80% marks. He has experience in hardware engineering and networking. He has an aptitude for troubleshooting in laptops and has one year of similar experience in a BPO. He is willing to work in any shift.

23. Garima, an engineering graduate with 70% marks, has excellent communication skills in English. She is willing to work in shifts and has over three years of similar experience in a BPO. She has an experience in networking and hardware engineering and aptitude for troubleshooting of desktops.

24. Chauhan, an engineering graduate with 65% marks, has excellent communication skills in English. He is willing to work in shifts and has over three years of similar experience. He has experience in hardware engineering and networking and has an aptitude for troubleshooting of laptops.

Directions for questions 25 to 32: Study the following information carefully and answer the questions given below.

'SMILE' an international developmental organization working in different parts of India focussing on the eradication of child labour is looking for a national coordinator for a project.

The following is the selection criteria.

The candidate must

- (i) have Master's degree in Social Sciences/ Economics/Development studies.
- (ii) have a minimum of 8 years of work experience in development field.
- (iii) have at least 5 years of research experience.
- (iv) have excellent understanding of macro-economic policies.
- (v) be self motivated and a team player.

However, if a candidate fulfils all other criteria except

(P) (iii) above but has at least 5 years of experience as a project manager then he is referred to the Director, SMILE.

(Q) (iv) above but has a doctoral degree in social service, then he is referred to the Chairman, SMILE.

Based on the above criteria and information provided about each candidate take a decision in each case. You are not to assume anything. If the data given is not adequate to take a decision mark your answer as 'Data inadequate'.

Give answers

- (A) if the candidate is selected as a National Coordinator.
- (B) if the candidate is referred to the Chairman, SMILE.
- (C) if the candidate is referred to the Director, SMILE.
- (D) if the data is inadequate.
- (E) if the candidate is rejected.

25. Vikas has Masters degree in Economics and has an excellent understanding of macroeconomic policies. He has ten years of work experience in the development field and six years of work experience in research. He is self motivated and an excellent team player.

26. Pankaj Pandey has done his Master's degree in Social Sciences and has an experience of over ten years in the development field and is a project manager for six years. He also has one year experience in research. He is self motivated and a team player and has an excellent understanding of macroeconomic policies.

27. Yoginder is self motivated and a team player and has a Master's degree in Development studies. He has over nine years of experience in the development field out of which three years of experience is in research and he worked as a project manager for 4 years. He has excellent understanding of macro economic polices.

28. Shilpibali has over twelve years of experience in the development field out of which seven years is in research. She has Master's degree in Economics and an excellent understanding of microeconomic policies. She is self motivated and a team player.
29. Parimala, has Master's degree in Social Sciences and a Doctoral degree in Social Service. She has nine years of experience in development field out of which six years is in research. She is self motivated and a team player. She has no understanding of macroeconomic policies.
30. Rajesh has over eleven years of experience in development field out of which six years is in research. He has an excellent understanding of macro economic policies. He has Master's degree in Economics.
31. Shruti has done her Master's degree in Economics and has an experience of over twelve years in development field out of which 4 years is in research. She has no understanding of macroeconomic policies. She is a self motivated and a team player.
32. Joseph has nine years of experience in development field out of which 5 years experience is in research. She has no understanding of macroeconomic policies. He is self motivated and a team player. He has Master's degree in Social Sciences and also has a Doctoral degree in Social Service.

Directions for questions 33 to 40: These questions are based on the following information.

A number classifying machine classifies a given number as "Sensible number" if the number has

- (i) at least six digits,
- (ii) at least two even digits,

- (iii) a prime number in the units place and
- (iv) no two digits are same.

If a given number satisfies all the criteria except,

- (P) (ii) alone, but starts with an even digit, then the number is classified as "Soft number".
- (Q) (iii) alone, but the number is odd then the number is classified as "Difficult number".
- (R) (iv) alone, but no two consecutive digits are the same then the numbers is classified as "Complicated number".

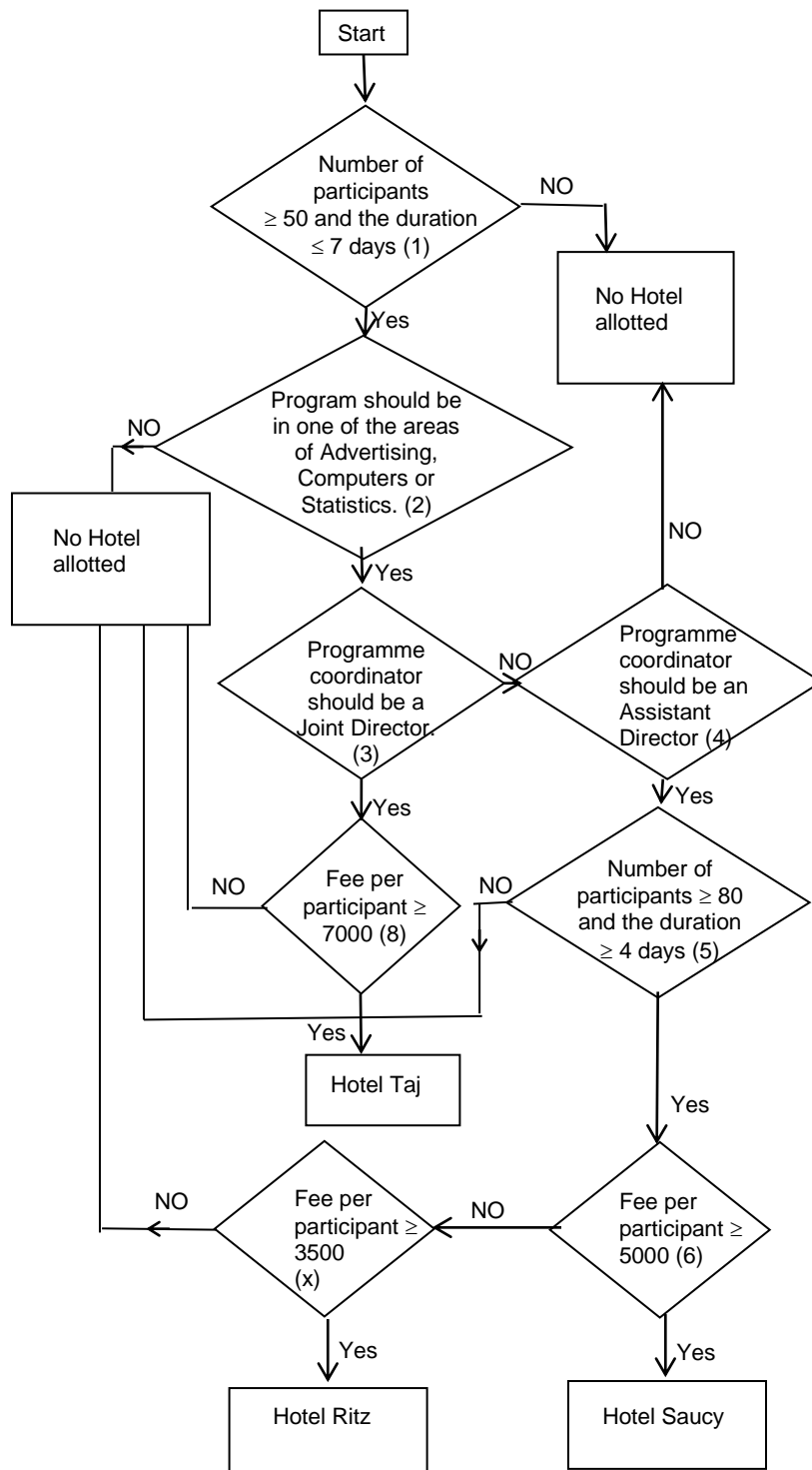
If a number does not fit into any of the above mentioned classification, then the number is classified as "Waste number".

Based on the above mentioned criteria decide the classification for the numbers given in the questions. Mark your answer as.

- (A) if the number is classified as Sensible number.
- (B) if the number is classified as Soft number.
- (C) if the number is classified as Difficult number.
- (D) if the number is classified as Complicated number.
- (E) if the number is classified as Waste number.

- 33. 4687322
- 34. 3456789
- 35. 138642
- 36. 291735
- 37. 85613
- 38. 9713864
- 39. 2976813
- 40. 5796723

Directions for questions 41 to 45: The following are the criteria for organizing the Training Programme in different hotels. The following flow chart represents the criteria and steps involved in allotting different Hotels to organize the Training Programme based on the information provided.



41. A 5-day training programme for 55 participants is to be organized by Shri Jairam Singh, the Assistant Director. The fee of the participant is 4500.
- If the programme is to be organized in Hotel Taj.
 - If the programme is to be organized in Hotel Ritz.
 - If the programme is to be organized in Hotel Saucy.
 - No Hotel allotted.
 - If the given data is inadequate.

42. A training programme on Advertising is to be organized by Shri Tiwari, the Joint Director, for 78 participants and fee per participant is 6000 and the duration of the course is 6 days.
 (A) If the given data is inadequate.
 (B) If the programme is to be organized in Hotel Ritz.
 (C) No Hotel allotted.
 (D) If the programme is to be organized in Hotel Saucy.
 (E) If the programme is to be organized in Hotel Taj.
43. Dr. Saroja Devi, Joint Director of the institute wants to organize a programme for 100 students with duration of the course for 5 days in the area of Computers. The fee per participant is 8500.
 (A) If the programme is to be organized in Hotel Ritz.
 (B) If the given data is inadequate.
 (C) No Hotel allotted.
 (D) If the programme is to be organized in Hotel Taj.
 (E) If the programme is to be organized in Hotel Saucy.
44. Prof. Sunil Kumar, Assistant Director, has offered 4 days programme for 93 students in the area of Advertising. The fee per participant is 5500.
 (A) If the programme is to be organized in Hotel Saucy.
 (B) If the given data is inadequate.
 (C) No Hotel allotted.
 (D) If the programme is to be organized in Hotel Ritz.
 (E) If the programme is to be organized in Hotel Taj.
45. A training programme on statistics is proposed by Dr. Vinod Raj, the Assistant Director, for 3 days on Advertising. The number of participants is 85 and the fee per participant is 5800.
 (A) If the programme is to be organized in Hotel Saucy.
 (B) No Hotel allotted.
 (C) If the programme is to be organized in Hotel Ritz.
 (D) If the given data is inadequate.
 (E) If the programme is to be organized in Hotel Taj.

Key

Exercise – 14

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