

**Mid Term Examination- 2021**  
**Career Skills**

Paper Pattern- Pure Objective

Max. Questions- 50

Min. (Passing) Marks-20

Max. Time-90 Min.

Topics for Midterm Examinations-

- a) Arrangement
- b) Blood Relation
- c) Grouping

**Mock Test**

(Direction for Q. 1-4) A certain code uses only letters K, L, M, N and O words in the code are written from left to right. code words are only those words that confirm to the following conditions:

- Minimum length for code words is two letters not necessarily different from each other.
  - K cannot be the first letter in a word.
  - L must occur more than once in a word if it occurs at all.
  - M cannot be the last letter in a word not the next two to the last letter.
  - N must occur in a word if K occurs in the word.
  - O cannot be the last letter in a word unless L occurs in a word.
1. Which of the following letters could be place after O in L, O to form a code word exactly three letters long?
    - a. K
    - b. L
    - c. M
    - d. N
  2. If the only kinds of letter that are available are K, L and M then the total number of different code words each exactly two letters long that it is possible to make is.
    - a. 1
    - b. 3
    - c. 6
    - d. 9
  3. Which of the following is a code word?
    - a. K L L N
    - b. L O M L
    - c. M L L O
    - d. N M K O
  4. Which of the following could be turn into a code word by replacing the "X" with a letter used in the code?
    - a. M K X N O
    - b. X O K L L
    - c. X M M K O
    - d. X M O L K

(Direction for Q. 5-7) M,N,O,P,Q,R,S and T are eight members of a family across three generations. Their professions are engineer, scientist, artist, dentist, sportsman. medical representative, teacher, and housewife.

Further information is as follows:

- The teacher R is the maternal grandfather of the dentist N, but the dentist is not the granddaughter of the teacher.
- P. the maternal uncle of Q, is married to the artist.

- The sportsman M is the son-in-law of R's wife T who is a housewife.
- One of the couples in the second generation have two children.
- The scientist is the mother of N and the sister-in-law of O.

5. How is the sportsman related to Q?

- |           |                 |
|-----------|-----------------|
| a. Uncle  | c. Grandfather. |
| b. Father | d. Brother      |

6. What is the profession of N's maternal uncle?

- |                           |                         |
|---------------------------|-------------------------|
| a. Engineer               | c. Teacher              |
| b. Medical Representative | d. Cannot be determined |

7. How many male members are there in the family?

- |      |                         |
|------|-------------------------|
| a. 5 | d. Cannot be determined |
| b. 4 |                         |
| c. 3 |                         |

(Direction for Q. 8-11) Five extra classes were to be arranged for the students of B.Tech. as a part of their placement drive. The extra classes will be in the areas of C Programming, Java, OS, Software Engineering and DBMS (not in any particular order) and would be conducted one on each day from Monday to Saturday with a day of rest in between.

Further information is as follows:

- C Programming must be conducted on Thursday.
- There is a gap of exactly two days between Java and OS.
- DBMS cannot be the last class to be conducted among the five classes. Also, the rest day can neither be on Monday nor on Saturday.
- The class on DBMS is scheduled immediately before the Java class, but not on the first day of the week.
- The Java class must be scheduled before the class on OS.

8. When is the rest day scheduled?

- |             |              |
|-------------|--------------|
| a. Tuesday  | c. Wednesday |
| b. Thursday | d. Friday    |

9. Which is the first class to be scheduled?

- |                         |                  |
|-------------------------|------------------|
| a. Software Engineering | c. OS            |
| b. Java                 | d. C Programming |

10. If Monday is the first day, on which day is OS scheduled?

- |          |           |
|----------|-----------|
| a. Third | c. Fourth |
| b. Fifth | d. Sixth  |

11. In how many ways can the classes be scheduled?

- |      |      |
|------|------|
| a. 1 | c. 2 |
| b. 3 | d. 4 |

A team of teachers must be chosen out of the eight available teachers to represent the university at the Syllabus Council meet. The eight teachers are Rawat, Abhishek, Vinod, Tarun, Kapil, Shalini, Vatsala and Prateek. The selection must follow the additional conditions:

- The team must have a minimum of four members.
  - If Rawat is selected, then Vatsala must be selected.
  - Exactly one from Prateek or Tarun must be selected.
  - Shalini and Rawat cannot be selected together.
  - Kapil and Shalini must be selected together.
12. If Rawat is a member of a team of four members, in how many ways can the team be selected?
  - a. Two
  - b. Four
  - c. Three
  - d. Five
13. If Shalini is selected, what can be the maximum number of members in the team?
  - a. Five
  - b. Six
  - c. Four
  - d. Seven
14. Who cannot be a member of a team of six members?
  - a. Kapil
  - b. Abhishek
  - c. Tarun
  - d. Rawat
  - e.
15. Who among the following cannot be members of the same team?
  - a. Rawat, Vinod
  - b. Kapil, Rawat
  - c. Kapil, Abhishek
  - d. Vatsala, Vinod
16. Which among the following is not an acceptable combination?
  - a. Rawat, Vinod, Abhishek, Tarun, Vatsala.
  - b. Vinod, Abhishek, Prateek, Vatsala, Shalini
  - c. Shalini, Kapil, Vatsala, Tarun
  - d. Tarun, Vatsala, Shalini, Kapil, Vinod, Abhishek

(Directions for Q.17-20) Five friends - Amit, Vikas, Sanjay, Shashwat and Rajesh-travelled from five different cities Singapore, Pune, Bangalore, Noida and Chandigarh for their reunion at Nainital. They travelled by Jet Airways, Indigo, Spicejet, Air India and Go Air (not in any particula rorder).

Further information is as follows:

- The person who travelled by Go Air is either from Pune or Bangalore.
  - Vikas is from Singapore.
  - Rajesh travelled by Air India and is not from Chandigarh.
  - Amit travelled from Pune using Jet Airways.
  - Sanjay does not travel by Go Air.
  - SpiceJet does not have a flight operating to or from Singapore.
17. Which airlines does Vikas use?
- |                |              |
|----------------|--------------|
| a. Jet Airways | c. Go Air    |
| b. Indigo      | d. Air India |

e.

18. From which city did Shashwat travel for the reunion?

- |               |              |
|---------------|--------------|
| a. Chandigarh | c. Bangalore |
| b. Noida      | d. Singapore |

19. Who travelled by SpiceJet for the reunion?

- |             |           |
|-------------|-----------|
| a. Shashwat | c. Vikas  |
| b. Rajesh   | d. Sanjay |

20. The person who used Air India travelled from which city?

- |              |               |
|--------------|---------------|
| a. Noida     | c. Pune       |
| b. Bangalore | d. Chandigarh |

(Direction for Q. 21-23) A team of 4 students is to be selected out of 4 girls (Emma, Meena, Deepa and Tula) and 4 boys (Rahul, Lachho, Varun and Chatto) subject to the following conditions:

- Exactly one person from Emma or Deepa is always selected, but both will not be selected together.
- Lachho and Chatto will always be selected together.
- The team must have children of both the genders.
- Meena will not be selected with Varun and Emma will not be selected with Chatto.

21. If Lachho is selected, then who among the girls will get selected?

- |          |          |
|----------|----------|
| a. Deepa | c. Meena |
| b. Emma  | d. Tula  |

22. If a team has Meena, in how many ways can the team be formed?

- |      |      |
|------|------|
| a. 1 | c. 2 |
| b. 3 | d. 4 |

23. If the condition of 4 members is removed, what is the strength of the largest possible team?

- |      |      |
|------|------|
| a. 4 | c. 6 |
| b. 5 | d. 7 |

(Direction for Q. 24-27) Six children-A, B, C, D, E and F-study in six different cities-Delhi, Indore, Jabalpur, Coimbatore, Dehradun, and Chandigarh (not in any particular order). They are studying in class 5, 6, 7, 8, 9 and 10 (not in any particular order), and their favorite subjects are Physics, Chemistry, Math, Biology, Hindi, and English (not in any particular order). Further information is as follows:

- The one studying in Dehradun is in Class 8 does not like Hindi or Chemistry.
- A's favorite subject is Physics, and he stays in Indore.
- Biology and English are only taught in classes 9 and 10 one in each class (not in any particular order).
- F is the child studying in Class 7 in Jabalpur.

- D's favorite subject is English
- Hindi is the favorite subject of the child studying in
- Class 6 in Coimbatore.
- E stays in Chandigarh and in Dehradun

24. The child studying in class 9 is in which city?

- |               |               |
|---------------|---------------|
| a. Delhi      | c. Coimbatore |
| b. Chandigarh | d. CND        |

25. The child who likes to study physics is in which class?

- |      |      |
|------|------|
| a. 6 | c. 5 |
| b. 7 | d. 8 |

26. Which of the following combination of child- subject city and class is incorrect?

- |                              |                          |
|------------------------------|--------------------------|
| a. F- Chemistry- Jabalpur- 7 | c. A- Physics- Indore- 8 |
| b. C- Hindi- Coimbatore- 6   | d. B- Math- Dehradun- 8  |

27. The child who likes to study biology is in which city?

- a. Chandigarh
- b. Indore
- c. Delhi
- d. CND

(Direction for Q. 28-31) A, B, C, D, E, F and G are seven members of a family across three generations. There are two married couples in the family. Further information is as follows:

- G is the daughter-in-law of A and the sister-in-law of C.
- F is the granddaughter of D and the sister of B.
- E is the brother of C and the father of F

28. How many male members are there in the family?

- |      |        |
|------|--------|
| a. 3 | c. 2   |
| b. 4 | d. CND |

29. How is F related to C?

- |           |            |
|-----------|------------|
| a. Sister | c. Niece   |
| b. Nephew | d. Brother |
| e.        |            |

30. Who could have said this to whom, 'I am the sister of the husband of your daughter-in-law'?

- |           |           |
|-----------|-----------|
| a. G to C | c. C to D |
| b. G to D | d. D to G |

31. Who is the husband of G?

- |                         |      |
|-------------------------|------|
| a. D                    | c. E |
| b. Cannot be determined | d. F |

(Direction for Q. 32-33) A % B means A is the husband of B. A & B means A is the wife of B. A\*B means A is the mother of B.

32. What does the relation P % Q R & S mean?

- a. S is the nephew of P.
- b. S is the son of Q.

- c. R is the daughter-in-law of Q.
- d. S is the son-in-law of P

33. What does the relation  $W \% X * Y * Z$  mean?

- a. Z is the grandson of X.
- b. Z is the daughter of Y.

- c. W is the grandfather of Z
- d. None of these