

School of General Education  
Session: 2021-22 (Summer Semester)  
B. Voc. Program, 1<sup>st</sup> Semester,  
End-Sem. Examination

Set - A

Course Code: GEN1101

Time: 2 Hours

Course Name: English Language and Comprehension

Max. Marks: 50

Instructions: The question paper comprises three sections A, B & C. Attempt all the questions. Marks allotted are mentioned against each section.

## Section-A

10X01 = 10 Marks

- Q1. Fill in the blank with suitable noun:  
*She bought a \_\_\_\_\_ of bananas from the market. (few/ bunch)*
- Q2. Fill in the blank with the appropriate degree of comparison.:  
*An airplane flies \_\_\_\_\_ than birds. (faster/more fast)*
- Q3. Choose the correct answer:  
Who said, 'I don't want your help, Go away'?
- |                 |               |
|-----------------|---------------|
| (a) Velu's wife | (c) Fisherman |
| (b) Velu's son  | (d) Velu      |
- Q4. State whether the following sentence is True or False: -  
*Rip Van Winkle lived in a small village in North America.*
- Q5. Fill in the blank with suitable pronoun:  
*Rama is the girl \_\_\_\_\_ is liked by all. (whom/who)*
- Q6. Write the correct homophone for the following sentence:  
*The homophone for the word 'won' is \_\_\_\_\_ .(one/two)*
- Q7. Who told Mowgli that honey was pleasant to eat?
- |               |                 |
|---------------|-----------------|
| (a) Bagheera  | (c) Father Wolf |
| (b) Black Owl | (d) Baloo       |
- Q8. My sister is \_\_\_\_\_ doctor. The suitable article in the blank is:
- |         |          |
|---------|----------|
| (a) A   | (c) An   |
| (b) The | (d) Zero |
- Q9. Fill in the blank with the correct word from the given verbs in the bracket: -  
*The sun \_\_\_\_\_ in the East. (rise/rises)*
- Q10. Helen Keller could neither see nor.....
- |           |          |
|-----------|----------|
| (a) Walk  | (c) Hear |
| (b) Smell | (d) Feel |



Section B

04X04 = 16 Marks

- Q11. What did Mowgli do when he felt hot and dirty?
- Q12. Describe the nature of Velu in the story, *Velu: A Fisherman*.
- Q13. Write about your daily routine.
- Q14. Explain with reference to the context:

*Give the poor child what she wants.*

Section C

04X06 = 24 Marks

- Q15. Write the summary of *Velu: A Fisherman*.
- Q16. Make meaningful sentences with the following jumbled words:
- (a) to/Helen/grow/began/wild.
  - (b) was/fisherman/a/Velu.
  - (c) friends/books/our/best/are.
  - (d) have/you/any/pen/do/good?
  - (e) greedy/Velu/selfish/was/and.
  - (f) Helen/a doll/ Miss Sullivan/gave.
- Q17. Prepare your resume in order to apply for internship at XYZ company.
- Q18. Write example sentences (one sentence in each) to express each of the following notions:
- (a) Making Request
  - (b) Asking for Permission
  - (c) Agreement
  - (d) Disagreement
  - (e) Expressing Excuses/ Apologies
  - (f) Greeting while meeting someone

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# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Registration No.: .....

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End-Sem. Examination

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## Section-A

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- Q3. Choose the correct answer:  
Who said, 'I don't want your help, Go away'?"  
(a) Velu's wife (c) Fisherman  
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- Q4. State whether the following sentence is True or False: -  
*Rip Van Winkle lived in a small village in North America.*
- Q5. Fill in the blank with suitable pronoun:  
*Rama is the girl \_\_\_\_\_ is liked by all. (whom/who)*
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*The homophone for the word 'won' is \_\_\_\_\_ .(one/two)*
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(b) The (d) Zero
- Q9. Fill in the blank with the correct word from the given verbs in the bracket: -  
*The sun \_\_\_\_\_ in the East. (rise/rises)*
- Q10. Helen Keller could neither see nor.....  
(a) Walk (c) Hear  
(b) Smell (d) Feel



# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

## Section B

04X04 = 16 Marks

- Q11. What did Mowgli do when he felt hot and dirty?
- Q12. Describe the nature of Velu in the story, *Velu: A Fisherman*.
- Q13. Write about your daily routine.
- Q14. Explain with reference to the context:  
*Give the poor child what she wants.*

## Section C

04X06 = 24 Marks

- Q15. Write the summary of *Velu: A Fisherman*.
- Q16. Make meaningful sentences with the following jumbled words:
- (a) to/Helen/grow/began/wild.
  - (b) was/fisherman/a/Velu.
  - (c) friends/books/our/best/are.
  - (d) have/you/any/pen/do/good?
  - (e) greedy/Velu/selfish/was/and.
  - (f) Helen/a doll/ Miss Sullivan/gave.
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Set A  
**BHARTIYA SKILL DEVELOPMENT UNIVERSITY**

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**Answer Key(A)**

**Section-A**

10X01 = 10 Marks

- Q1.** Fill in the blank with suitable noun:  
(a) She bought a \_\_\_\_\_ of bananas from the market. (**few/ bunch**)
- Q2.** Fill in the blank with the appropriate degree of comparison.:  
(a) An airplane flies \_\_\_\_\_ than birds. (**faster/more fast**)
- Q3.** Choose the correct answer:  
Who said, 'I don't want your help, Go away'?"  
(a) Velu's wife (c) Fisherman  
(b) Velu's son (d) **Velu**
- Q4.** State whether the following sentence is True or False: -  
(a) Rip Van Winkle lived in a small village in North America. (**True**)
- Q5.** Fill in the blank with suitable pronoun:  
(a) Rama is the girl \_\_\_\_\_ is liked by all. (**whom/who**)
- Q6.** Write the correct homophone for the following sentence:  
(a) The homophone for the word 'won' is \_\_\_\_\_ .(**one/two**)
- Q7.** Who told Mowgli that honey was pleasant to eat?  
(a) Bagheera (c) Father Wolf  
(b) Black Owl (d) **Baloo**
- Q8.** My sister is \_\_\_\_\_ doctor. The suitable article in the blank is:  
(a) **A** (c) An  
(b) The (d) Zero
- Q9.** Fill in the blank with the correct word from the given verbs in the bracket: -  
(a) The sun \_\_\_\_\_ in the East. (**rise/rises**)
- Q10.** Helen Keller could neither see nor.....  
(a) Walk (c) **Hear**  
(b) Smell (d) Feel



## BHARTIYA SKILL DEVELOPMENT UNIVERSITY

### Section B

04X04 = 16 Marks

**Q11.** What did Mowgli do when he felt hot and dirty?

**Ans.** When Mowgli felt hot and dirty, he swam in the forest pools.

**Q12.** Describe the nature of Velu in the story, 'Velu: A Fisherman'.

**Ans.** Velu was greedy and selfish. He did not give his fish to other fishermen. He was not kind or pleasant. By the end of the story, he became kind and generous due to one incident. Thereafter, he helped other fishermen.

**Q13.** Write about your daily routine.

**Ans.** Students will write details about themselves.

**Q14.** Explain with reference to the context:

*Give the poor child what she wants.*

**Ans.** This sentence has been taken from the story, Helen Keller. This sentence is spoken by Helen's father to her mother as the child was crying.

### Section C

04X06 = 24 Marks

**Q15.** Write the summary of *Velu: A Fisherman*.

**Ans.** Velu was a fisherman who lived in a small house near the sea. He had good nets and a strong boat for fishing. Velu was greedy and selfish by nature. He was unkind too as he never liked to share his fish with other fishermen.

One day, Velu went fishing to the sea with his fellow fishermen. Velu, being greedy, went a long way into the sea and caught plenty of fish. The fish he caught were small in size. Suddenly, Velu saw many big fish and wanted to catch them. So, he threw away all his small fish and cast his net again to catch the bigger fish. The other fishermen offered to help him, but Velu refused to take their help. Hence, they all went away.

Velu caught a lot of big fish this time in his net. The net became so heavy that Velu could not pull it into his boat alone. The fish broke the net and escaped into the sea, damaging the fishing net. Velu realized his mistake and decided not to be greedy again. At night, Velu and his wife had nothing to eat. His friend fisherman offered them fish for dinner and also promised to help Velu mend his net.

**Q16.** Make meaningful sentences with the following jumbled words:

(a) to/Helen/grow/began/wild.

**Helen began to grow wild.**

(b) was/fisherman/a/Velu.

**Velu was a fisherman.**

(c) friends/books/our/best/are.



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- Books are our best friends.**
- (d) have/you/any/pen/do/good?  
**Do you have any good pen?**
- (e) greedy/Velu/selfish/was/and.  
**Velu was greedy and selfish.**
- (f) Helen/a doll/ Miss Sullivan/gave.  
**Miss Sullivan gave Helen a doll.**
- (g) **Miss Sullivan gave Helen a doll.**

Q 17. Prepare your resume in order to apply for internship at XYZ company.

Q18. Write example sentences (one sentence in each) to express each of the following notions:

- (a) Making Request  
**May I know who's calling?**
- (b) Asking for Permission  
**Would you mind opening a window?**
- (c) Agreement  
**I agree entirely.**
- (d) Disagreement  
**That's not true.**
- (e) Expressing Excuses/ Apologies  
**Please forgive me.**
- (f) Greeting while meeting someone  
**Hello! How are you?**

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Marks allotted are mentioned against each section.

Section-A

10X01 = 10 Marks

- Q1. Fill in the blank with suitable noun:  
*Kashmir is known for its \_\_\_\_\_ . (beautiful/ beauty)*
- Q2. Fill in the blank with the appropriate degree of comparison.:  
*Ram is the \_\_\_\_\_ boy in the class. (tallest/ taller)*
- Q3. Choose the correct answer:  
Hellen Keller was:  
(a) Deaf and dumb (c) Blind and deaf  
(b) Dumb and blind (d) Deaf only
- Q4. State whether the following sentence is True or False: -  
*Velu had a small but strong boat.*
- Q5. Rip Van Winkle lived in a small village in.....  
(a) South America (c) India  
(b) South Africa (d) North America
- Q6. Fill in the blank with suitable pronoun:  
*This pen is \_\_\_\_\_ . ( my/mine)*
- Q7. Write the correct homophone for the following sentence:  
*The homophone for the word 'hour' is \_\_\_\_\_ . ( our/your)*
- Q8. Who told Mowgli that honey was pleasant to eat?  
(a) Bagheera (c) Black Owl  
(b) Father Wolf (d) Baloo
- Q9. Fill in the blank with the correct word from the given verbs in the bracket: -  
*Last year, I \_\_\_\_\_ for a holiday to Goa. (go/went)*
- Q10. My brother lives in..... Jaipur. The suitable article in the blank is:  
(a) A (c) An  
(b) The (d) Zero



Section B

04X04 = 16 Marks

Q11. What did Mowgli do when he was not learning?

Q12. Write about your daily routine.

Q13. What kind of a teacher was Miss Sullivan?

Q14. Explain with reference to the context:

*How wonderful to see you again, Papa!*

Section C

04X06 = 24 Marks

Q15. Write the summary of *Rip Van Winkle*.

Q16. Make meaningful sentences with the following jumbled words:

- (a) serve/did/not/parents/his old/he
- (b) ink/in the/much/how/bottle/is/there
- (c) the dog/every morning/the old man/for a walk/ takes
- (d) things/spare time/we do/in our/lots of
- (e) till/you/come back/wait/here/shall/i
- (f) you/fail/will/your time/waste/if/you

Q17. Prepare your resume in order to apply for internship at XYZ company.

Q18. Write example sentences (one sentence in each) to express each of the following notions:

- (a) Making Request
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Time: 2 Hours

Course Name: English Language and Comprehension

Max. Marks: 50

Answer Key(B)

Section-A

10X01 = 10 Marks

- Q1. Fill in the blank with suitable noun:  
(a) Kashmir is known for its \_\_\_\_\_. (beautiful/ beauty)
- Q2. Fill in the blank with the appropriate degree of comparison.:  
(a) Ram is the \_\_\_\_\_ boy in the class. (tallest/ taller)
- Q3. Choose the correct answer:  
Hellen Keller was:  
(a) Deaf and dumb (c) Blind and deaf  
(b) Dumb and blind (d) Deaf only
- Q4. State whether the following sentence is True or False: -  
(a) Velu had a small but strong boat. (True)
- Q5. Rip Van Winkle lived in a small village in.....  
(a) South America (c) India  
(b) South Africa (d) North America
- Q6. Fill in the blank with suitable pronoun:  
(a) This pen is \_\_\_\_\_. ( my/mine)
- Q7. Write the correct homophone for the following sentence:  
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Last year, I \_\_\_\_\_ for a holiday to Goa. (go/went)
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(a) A (c) An  
(b) The (d) Zero



# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

## Section B

04X04 = 16 Marks

**Q11.** What did Mowgli do when he was not learning?

**Ans.** When Mowgli was not learning, Mowgli sat out in the sun and slept and ate and went to sleep again.

**Q12.** Write about your daily routine.

**Ans.** Students will write details about themselves.

**Q13.** What kind of a teacher was Miss Sullivan?

**Ans.** Miss Sullivan was strict but kind.

**Q14.** Explain with reference to the context:

*How wonderful to see you again, Papa!*

**Ans.** The above statement has been taken from the story, Rip Van Winkle. Rip's daughter said this to her father when he told her that he was his father who left home twenty years ago.

## Section C

04X06 = 24 Marks

**Q15.** Write the summary of *Rip Van Winkle*.

**Ans.** Rip Van Winkle was a simple, kind hearted man who lived in a small village in North America. He told good stories and so the children loved him. Rip's only problem was that he was lazy and spent his time shooting, fishing and dreaming.

One day, Rip went to the Catskill Mountains. He saw a strangely dressed man who was trying to lift a big barrel. Rip kindly lifted the barrel and went up the mountain. When they came to a level field, Rip saw seven men playing a game. They gave him something to drink. After drinking, Rip fell asleep.

When Rip woke up everything had changed. He went to his village and could not recognize anything. He also had become an old man. He saw a young woman with a baby. She told him that her father's name was Rip. Rip was very happy to see his daughter. He went and lived in her house very happily.

**Q16.** Make meaningful sentences with the following jumbled words:

(a) serve/did/not/parents/his old/he

**He did not serve his old parents.**

(b) ink/in the/much/how/bottle/is/there

**How much ink is there in the bottle?**

(c) the dog/every morning/the old man/for a walk/ takes

**The old man takes the dog for a walk every morning.**

(d) things/spare time/we do/in our/lots of

**We do lots of things in our spare time.**



## BHARTIYA SKILL DEVELOPMENT UNIVERSITY

- (e) till/you/come back/wait/here/shall/i  
**I shall wait here till you come back.**
- (f) you/fail/will/your time/waste/if/you  
**You will fail if you waste your time.**

**Q 17.** Prepare your resume in order to apply for internship at XYZ company.

**Q18.** Write example sentences (one sentence in each) to express each of the following notions:

- (a) Making Request  
**May I know who's calling?**
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**I agree entirely.**
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**Hello! How are you?**

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School of General Education  
Session: 2021-22 (Summer Semester)  
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End-Sem. Examination

Course Code: GEN 1103

Time: 2 Hours

Course Name: Applied Mathematics

Max. Marks: 50

- Instruction: 1. Attempt all questions  
2. Calculator is strictly prohibited.  
3. Missing data if any can be suitably assumed.

Section – A

10X01 = 10 Marks

Q1. If  $A = \{3, 5, 7, 9, 11\}$  and  $B = \{3, 4, 5, 6\}$ , then  $A - B$  is

- (A)  $\{ \}$  (B)  $\{7, 9, 11\}$   
(C)  $\{3, 5, 7, 9\}$  (D)  $\{0\}$

Q2. Which of the following is a prime number?

- (A) 23 (B) 30  
(C) 81 (D) 51

Q3.  $\frac{d}{dx}(\cos x) =$

- (A)  $\cos x$  (B)  $\frac{\sin x}{2}$   
(C)  $-\sin x$  (D) none of them

Q4.  $\frac{d}{dx}(6b) =$

- (A)  $6b$  (B) 6  
(C) 0 (D) 1

Q5.  $\lim_{x \rightarrow 2} x^2 + x + 1 =$

- (A) 3 (B) 4  
(C) 7 (D) 1

Q6.  $\int 5dx =$

- (A)  $x + c$  (B)  $5x + c$   
(C) 0 (D)  $x^5 + c$

Q7.  $\int e^x dx =$

- (A)  $\log x + c$  (B)  $e + c$   
(C)  $e^x + c$  (D) none of these

Q8.  $\int a^x dx =$

(A)  $a^x \log x + c$

(B)  $a^x \log a + c$

(C)  $\frac{a^x}{\log a} + c$

(D) 0

Q9. If  $A = \{1, 2, 3, 4\}$  and  $B = \{3, 4, 5, 6\}$ , then  $A \cup B$  is

(A)  $\{1, 2, 3, 4\}$

(B)  $\{3, 4, 5, 6\}$

(C)  $\{3, 4\}$

(D)  $\{1, 2, 3, 4, 5, 6\}$

Q10.  $\frac{d}{dx}(x^2 + a) =$

(A)  $2x$

(B)  $2x + 1$

(C)  $2x + a$

(D) 0

**Section – B**

04X04 = 16 Marks

Q11. Evaluate  $\lim_{x \rightarrow 1/3} \frac{9x^2 - 1}{3x - 1}$ .

Q12. Evaluate  $\lim_{x \rightarrow 2} \frac{x^2 - 4}{\sqrt{3x - 2} - \sqrt{x + 2}}$ .

Q13. If  $y = \frac{(\log x)(x^2 + 2)}{\tan x}$ , then find  $\frac{dy}{dx}$ .

Q14. Evaluate  $\int \frac{x^{1/4} + \sqrt{x} + x^2}{x^2} dx$ .

**Section – C**

04X06 = 24 Marks

Q15. Write the following sets in roster form:

(a)  $A = \{x : x \text{ is an integer and } -3 \leq x < 7\}$

(b)  $B = \{x : x \text{ is a natural number less than 6}\}$

Q16. Differentiate the following with respect to  $x$ .

(a)  $\frac{7x^3 + 5 \sec x}{x^3 + a}$

(b)  $ax^3 \sqrt{\log x}$

Q17. Integrate the following with respect to  $x$ .

(a)  $\int \frac{x^4 + x^2}{\sqrt{x}} dx$

(b)  $\int \left( \frac{8}{x} - \frac{5}{x^2} + \frac{6}{x^3} \right) dx$

Q18. If  $U = \{1, 2, 3, 4, 5, 6\}$ ,  $A = \{2, 3\}$  and  $B = \{3, 4, 5\}$ . Find  $A'$ ,  $B'$ ,  $A' \cap B'$ ,  $A \cup B$  and hence show that  $(A \cup B)' = A' \cap B'$ .

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# End-SEM (Answer keys)

MEN1103(B)

- ① B ② A ③ C ④ C ⑤ C ⑥ B ⑦ C ⑧ C ⑨ D ⑩ A

Q11  $\lim_{x \rightarrow 1/3} \frac{(3x-1)(3x+1)}{(3x-1)} = \frac{3 \times 1}{3} + 1 = 2$

Q12  $\lim_{x \rightarrow 2} \frac{(x-2)(x+2)}{\sqrt{3x-2}-\sqrt{x+2}} \times \frac{\sqrt{3x-2}+\sqrt{x+2}}{\sqrt{3x-2}+\sqrt{x+2}}$

$\Rightarrow \lim_{x \rightarrow 2} \frac{(x-2)(x+2)(\sqrt{3x-2}+\sqrt{x+2})}{(3x-2)-(x+2)}$

$\Rightarrow \lim_{x \rightarrow 2} \frac{(x-2)(x+2)(\sqrt{3x-2}+\sqrt{x+2})}{2(x-2)} = \frac{(2+2)(2+2)}{2} = \frac{16}{2} = 8$

Q13 ~~y~~  $\frac{dy}{dx} = \tan u \left[ \log x \cdot (2x) + (x^2+2) \frac{1}{x} \right] - \log x (x^2+2) \sec^2 x$

Q14  $\int x^{1/4-2} dx + \int x^{1/2-2} dx + \int 1 dx$

$= \int x^{-7/4} dx + \int x^{-3/2} dx + \int 1 dx$

$= \frac{x^{-7/4+1}}{-7/4+1} + \frac{x^{-3/2+1}}{-3/2+1} + x + C$

Q15 (a)  $A = \{-3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}$

(b)  $B = \{1, 2, 3, 4, 5\}$

Q16 (a)  $y = \frac{7x^3 + 5 \sec x}{x^3 + a}$

$$\frac{dy}{dx} = \frac{(x^3 + a) \frac{d}{dx} (7x^3 + 5 \sec x) - (7x^3 + 5 \sec x) \frac{d}{dx} (x^3 + a)}{(x^3 + a)^2}$$

$$\frac{dy}{dx} = \frac{(x^3 + a)(21a^2 + 5 \sec x \tan x) - (7x^3 + 5 \sec x)(3x^2)}{(x^3 + a)^2}$$

(b)  $\frac{dy}{dx} = ax^3 \frac{d}{dx} \sqrt{\log x} + \sqrt{\log x} \frac{d}{dx} ax^3$   
 $= ax^3 \cdot \frac{1}{2} (\log x)^{-1/2} \cdot \frac{1}{x} + \sqrt{\log x} \cdot 3ax^2$

Q17 (a)  $\int x^{1-1/2} dx + \int x^{2-1/2} dx$   
 $= \int x^{1/2} dx + \int x^{3/2} dx = \frac{x^{7/2+1}}{7/2+1} + \frac{x^{3/2+1}}{3/2+1} + C$

(b)  $\int \frac{8}{x} dx - \int \frac{5}{x^2} dx + \int \frac{6}{x^3} dx$   
 $= 8 \log x + \frac{5}{x} dx - \frac{6}{2x^2} dx + C$

Q18  
 $A' = \{1, 4, 5, 6\}$   
 $B' = \{1, 2, 6\}$   
 $A' \cap B' = \{1, 6\}$  — (1)  
 $A \cup B = \{2, 3, 4, 5\}$   
 $(A \cup B)' = \{1, 6\}$  — (2)

from (1) & (2) hence proved



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### Section – A

10X01 = 10 Marks

Q1. If  $A = \{a, c, e, g, h\}$  and  $B = \{a, b, c, d\}$ , then  $B - A$  is

- (A)  $\{a\}$  (B)  $\{a, b, c\}$   
(C)  $\{a, b, c, d\}$  (D)  $\{b, d\}$

Q2. Which of the following number is the prime number?

- (A) 106 (B) 23  
(C) 30 (D) 21

Q3.  $\frac{d}{dx}(ax^4) =$

- (A)  $ax^5$  (B)  $a\frac{x^5}{5} + c$   
(C)  $4ax^3$  (D) none of them

Q4.  $\frac{d}{dx}(5b) =$

- (A) 9 (B)  $a$   
(C) 0 (D) 1

Q5.  $\lim_{x \rightarrow 0} 4x^2 + 17x + 3$

- (A) 8 (B) 0  
(C) 3 (D) 1

Q6.  $\int 2dx =$

- (A)  $2x + c$  (B)  $4x + c$   
(C) 0 (D)  $x^4 + c$

Q7.  $\int a^x dx =$

- (A)  $\frac{a^x}{\log a} + c$  (B)  $a^x \log a$   
(C)  $a^{x+1} + c$  (D)  $a$

Q8.  $\int \frac{1}{x} dx =$

(A) 0

(B)  $\log x + c$

(C)  $\log a + c$

(D)  $-\frac{1}{x^2} + c$

Q9. If  $A = \{1, 2, 3, 4\}$  and  $B = \{3, 4, 5, 6\}$ , then  $A \cup B$  is

(A)  $\{1, 2, 3, 4\}$

(B)  $\{3, 4, 5, 6\}$

(C)  $\{3, 4\}$

(D)  $\{1, 2, 3, 4, 5, 6\}$

Q10.  $\frac{d}{dx}(5x^2 + a) =$

(A)  $10x$

(B)  $5x + 1$

(C)  $5x + a$

(D) 0

**Section – B**

04X04 = 16 Marks

Q11. Evaluate  $\lim_{x \rightarrow 0} \frac{\sqrt{5+x} - \sqrt{5}}{x}$

Q12. Evaluate  $\lim_{x \rightarrow 1/2} \frac{4x^2 - 1}{2x - 1}$

Q13. If  $y = (5x^2 - 3)(4x^3 + 2)$ , then find  $\frac{dy}{dx}$ .

Q14. Evaluate  $\int \left( \frac{1}{x} + \frac{1}{x^{3/2}} + x^{5/2} \right) dx$

**Section – C**

04X06 = 24 Marks

Q15. (i) Write down the below mentioned sets in set-builder form

(a)  $A = \{2, 3, 4, 5\}$

(b)  $B = \{1, 8, 27, 64, 125\}$

(ii) Write down the below mentioned set in roster form:

(a)  $C = \{x : x \text{ is a natural number less than } 6\}$

Q16. Differentiate the following with respect to  $x$ .

(a)  $y = \frac{\log(x^2 + 2)(x^3 + 3)}{(x-1)}$

(b)  $y = \frac{(x^2 + 3x^3 + 12)^7}{\sqrt{x}}$

Q17. Integrate the following with respect to  $x$ .

(a)  $\int \frac{x^3 + x^2 + x}{x} dx$

(b)  $\int \frac{x^2 \sec^2 x + x^2 e^x + x}{x^2} dx$

Q18. If  $A = \{1, 2, 3, 4\}$ ,  $B = \{3, 4, 5, 6\}$  and  $C = \{6, 7, 8, 9\}$  and universal set  $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11\}$  then find:

(a)  $(A \cup B)' \cap (A \cup C)'$

(c)  $A \cup (B \cap C)$

(b)  $(A - B)' \cup (A - C)'$

\*\*\*\*\*

End-Sem (Answer Key)

WEN 1103 (A)

- ① D ② B ③ C ④ C ⑤ C ⑥ A ⑦ A ⑧ B ⑨ D  
⑩ A

Q11 
$$\lim_{x \rightarrow 0} \frac{\sqrt{5+x} - \sqrt{5}}{x} \times \frac{\sqrt{5+x} + \sqrt{5}}{\sqrt{5+x} + \sqrt{5}}$$

$$= \lim_{x \rightarrow 0} \frac{\cancel{5+x} - \cancel{5}}{x(\sqrt{5+x} + \sqrt{5})} = \frac{1}{\sqrt{5} + \sqrt{5}} = \frac{1}{2\sqrt{5}}$$

Q12 
$$\lim_{x \rightarrow 1/2} \frac{4x^2 - 1}{2x - 1} = \lim_{x \rightarrow 1/2} \frac{(2x-1)(2x+1)}{(2x-1)} = 2 \times \frac{1}{2} + 1 = \frac{2}{2} + 1 = 2$$

Q13 
$$y = (5x^2 - 3)(4x^3 + 2)$$

$$\frac{dy}{dx} = (5x^2 - 3) \frac{d}{dx} (4x^3 + 2) + (4x^3 + 2) \frac{d}{dx} (5x^2 - 3)$$

$$= (5x^2 - 3)(12x^2) + (4x^3 + 2)(10x)$$

Q14 
$$\int \left( \frac{1}{x} + \frac{1}{x^{3/2}} + x^{5/2} \right) dx$$

$$= \log|x| + \frac{x^{-3/2+1}}{-3/2+1} + \frac{x^{5/2+1}}{5/2+1} + C$$

- Q15 (i) (a)  $A = \{x \in \mathbb{N}, 1 < x < 6\}$   
(b)  $B = \{x = n^3, n \in \mathbb{N}, n < 6\}$
- (ii) (a)  $C = \{1, 2, 3, 4, 5\}$

Q16 (a)  $y = \log \frac{(x^2+2)(x^3+3)}{x-1}$

$$y = \log(x^2+2) + \log(x^3+3) - \log(x-1)$$

$$\frac{dy}{dx} = \frac{1}{x^2+2} \cdot 2x + \frac{1}{x^3+3} \cdot 3x^2 - \frac{1}{x-1}$$

(b)  $y = \frac{(x^2+3x^2+12)^7}{\sqrt{x}}$

$$\frac{dy}{dx} = \frac{\sqrt{x} \frac{d}{dx}(x^2+3x^2+12) - (x^2+3x^2+12)^7 \frac{d}{dx}\sqrt{x}}{x}$$

$$\frac{dy}{dx} = \sqrt{x} \cdot 17(x^2+3x^2+12)^6 (2x+6x) - (x^2+3x^2+12)^{\frac{7}{2}} \frac{1}{2\sqrt{x}}$$

Q17 (a)  $\int \frac{x^3+x^2+x}{x} dx$

$$= \int x^2 dx + \int x dx + \int 1 dx = \frac{x^3}{3} + \frac{x^2}{2} + x + C$$

(b)  $\int \sec^2 x dx + \int e^x dx + \int \frac{1}{x} dx = \tan x + e^x + \log x + C$

Q18 (a)  $(A \cup B)' \cap (A \cup C)' = \{7, 8, 9, 10, 11\} \cap \{5, 10, 11\} = \{10, 11\}$

(b)  $A \cup (B \cap C) = \{1, 4, 3, 4\} \cap \{6\}$

(c)  $(A-B)' \cup (A-C)' = \emptyset$   
 $= \{3, 4, 5, 6, 7, 8, 9, 10, 11\} \cup \{5, 6, 7, 8, 9, 10, 11\}$   
 $= \{3, 4, 5, 6, 7, 8, 9, 10, 11\}$



# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

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B. Voc. Program, 1<sup>st</sup> Semester,  
End Sem. Examination

Course Code: GEN1104

Time: 2 Hour

Course Name: Elementary Mathematics

Max. Marks: 50

Instruction:

1. Answer all questions form section A, each question carries one mark.
2. Answer all questions form section B, each question carries four marks.
3. Answer all questions form section C, each question carries six marks.

Section – A

10X01 = 10 Marks

Q1 Jane drives at an average speed of 45 mph on a journey of 135 miles. How long does the journey take?

- (a) 3
- (b) 3.5
- (c) 5
- (d) 4

Q2 LCM of two numbers is 60 and their HCF is 3. If one of the numbers is 15, Find the other number.

- (a) 3
- (b) 5
- (c) 12
- (d) 15

Q3 Find the side length of a cube whose volume is  $512 \text{ cm}^3$ .

- (a) 8
- (b) 10
- (c) 9
- (d) 12

Q4 Find the H.C.F. of 24 and 56

- (a) 24
- (b) 4
- (c) 12
- (d) 8

Q5 by selling an article at Rs. 800, a shopkeeper makes a profit of 25%. At what price should he sell the article so as to make a loss of 25%?

- (a) Rs. 460
- (b) Rs. 500
- (c) Rs. 480
- (d) Rs. 520



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Q6 Find the least number which when divided separately by 15, 20, 36 and 48 leaves 3 as remainder in each case.

- (a) 223
- (b) 723
- (c) 523
- (d) 823

Q7 By selling an article at Rs. 800, a shopkeeper makes a profit of 25%. At what price should he sell the article so as to make a loss of 25%?

- (a) Rs. 460
- (b) Rs. 500
- (c) Rs. 480
- (d) Rs. 520

Q8 Find the greatest number that will divide 197 and 269 and leaves 5 as remainder in each case.

- (a) 8
- (b) 18
- (c) 10
- (d) 28

Q9 Find the number of permutations and combinations if  $n = 12$  and  $r = 2$ .

- (a) 130,60
- (b) 131,61
- (c) 132,64
- (d) 132,66

Q10 A man buys a fan for Rs. 1000 and sells it at a Profit of 15%. What is the selling price of the fan?

- (a) 850
- (b) 1150
- (c) 1000
- (d) 950

### Section – B

04X04 = 16 Marks

Q11. The L.C.M of 22, 54, 108, 135 and 198 is

Q12. Let's consider the data: 50, 67, 24, 34, 78, 43. What is the median?

Q13. Define Following

- (i) Line
- (ii) Line Segment
- (iii) Ray

Q14. A shopkeeper bought 150 pen drives at the rate of Rs. 500 per pen drive. He spent Rs. 500 on transportation and packing. If the marked price of pen drive is Rs. 520 per pen drive and the shopkeeper gives a discount of 5% on the marked price then what will be the percentage profit gained by the shopkeeper?



# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

## Section – C

04X06 = 24 Marks

Q15. In a group of 6 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there?

Q16.: Find the area of a triangle having sides 5,6 and 7 unit's length.

Q17. Ram buys a watch for Rs. 500 and sells it to Shyam at 10% loss. Shyam then sells it to Ravi at 20% profit and Ravi sells it to Rakesh at 10% profit. How much did Rakesh pay for the watch?

Q18. Find the mode of the given data:

Marks Obtained	0-20	20-40	40-60	60-80	80-100
Number of students	5	10	12	6	3

1

82



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- (a) 3
- (b) 3.5
- (c) 5
- (d) 4

Q2 LCM of two numbers is 60 and their HCF is 3. If one of the numbers is 15, Find the other number.

- (a) 3
- (b) 5
- (c) 12
- (d) 15

Q3 Find the side length of a cube whose volume is 512 cm<sup>3</sup>.

- (a) 8
- (b) 10
- (c) 9
- (d) 12

Q4 Find the H.C.F. of 24 and 56

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- (c) Rs. 480**
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Q10 A man buys a fan for Rs. 1000 and sells it at a Profit of 15%. What is the selling price of the fan?

- (a) 850
- (b) 1150**
- (c) 1000
- (d) 950

### Section – B

04X04 = 16 Marks

Q11. The L.C.M of 22, 54, 108, 135 and 198 is

Explanation:

$$22 = 2 \times 11$$

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$$54 = 2 \times 332 \times 33$$

$$108 = 22 \times 3322 \times 33$$

$$135 = 33 \times 533 \times 5$$

$$198 = 2 \times 32 \times 112 \times 32 \times 11$$

$$\therefore \text{L.C.M} = 22 \times 33 \times 5 \times 11 = 5940$$

Q12. Let's consider the data: 50, 67, 24, 34, 78, 43. What is the median?

**Solution:**

Arranging in ascending order, we get: 24, 34, 43, 50, 67, 78.

Here, n (no. of observations) = 6

$$6/2 = 3$$

Using the median formula,

$$\text{Median} = (3^{\text{rd}} \text{ obs.} + 4^{\text{th}} \text{ obs.})/2$$

$$= (43 + 50)/2$$

$$\text{Median} = 46.5$$

Q13. Define Following

- (i) Line
- (ii) Line Segment
- (iii) Ray

**Line**

A line is a one dimensional figure with a straight set of points that extend in opposite directions. That means, it has no ends in both directions (infinite) and has no thickness.

**Line Segment**

A line segment is a portion of a line with two endpoints

**Ray:**

A ray is a part of a line that has one endpoint (i.e. starting point) and it extends in one direction infinitely

Q14. A shopkeeper bought 150 pen drives at the rate of Rs. 500 per pen drive. He spent Rs. 500 on transportation and packing. If the marked price of pen drive is Rs. 520 per pen drive and the shopkeeper gives a discount of 5% on the marked price then what will be the percentage profit gained by the shopkeeper?

**Answer:**

$$\text{C.P. of 150 calculators} = 150 \times 500 = \text{Rs. } 75000$$

$$\therefore \text{Total C.P.} = 75000 + 500 = \text{Rs. } 75500$$

$$\text{Marked price of 150 calculator} = 150 \times 520 = \text{Rs. } 82500$$

$$\text{Selling price after discount} = 82500 \times 95 / 100 = \text{Rs. } 78375$$

$$\therefore \text{percentage profit} = [(78375 - 75500) / 75500] \times 100 = 3.8\%$$

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****Section – C**

04X06 = 24 Marks

Q15. In a group of 6 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there?

In a group of 6 boys and 4 girls, four children are to be selected such that at least one boy should be there.

Hence we have 4 options as given below

We can select 4 boys ...(option 1)  
Number of ways to this =  ${}^6C_4$

We can select 3 boys and 1 girl ...(option 2)  
Number of ways to this =  ${}^6C_3 \times {}^4C_1$

We can select 2 boys and 2 girls ...(option 3)  
Number of ways to this =  ${}^6C_2 \times {}^4C_2$

We can select 1 boy and 3 girls ...(option 4)  
Number of ways to this =  ${}^6C_1 \times {}^4C_3$

Total number of ways  
 $= {}^6C_4 + {}^6C_3 \times {}^4C_1 + {}^6C_2 \times {}^4C_2 + {}^6C_1 \times {}^4C_3$   
 $= {}^6C_2 + {}^6C_3 \times {}^4C_1 + {}^6C_2 \times {}^4C_2 + {}^6C_1 \times {}^4C_1$  [∵  ${}^nC_r = {}^nC_{(n-r)}$ ]

$$= 6 \times 5 \times 2 \times 1 + 6 \times 5 \times 4 \times 3 \times 2 \times 1 \times 4 = 6 \times 5 \times 2 \times 1 + 6 \times 5 \times 4 \times 3 \times 2 \times 1 \times 4 + 6 \times 5 \times 2 \times 1 \times 4 \times 3 \times 2 \times 1 + 6 \times 4$$
$$= 15 + 80 + 90 + 24 = 209$$

Q16. : Find the area of a triangle having sides 5,6 and 7 units length.

**Solution-** Using Heron's formula to find the area of a triangle-

Semi perimeter (s) =  $(a+b+c)/2$

$$s = (5 + 6 + 7)/2$$

$$s = 9$$

Now Area of a triangle =  $\sqrt{s(s-a)(s-b)(s-c)}$

$$= \sqrt{9(9-5)(9-6)(9-7)}$$

$$= \sqrt{9 \times 4 \times 3 \times 2}$$

$$= \sqrt{3 \times 3 \times 2 \times 2 \times 3 \times 2}$$

$$= \sqrt{3^2 \times 2^2 \times 3 \times 2}$$

$$= 6\sqrt{6} \text{ square units.}$$

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY**

Q17. Ram buys a watch for Rs. 500 and sells it to Shyam at 10% loss. Shyam then sells it to Ravi at 20% profit and Ravi sells it to Rakesh at 10% profit. How much did Rakesh pay for the watch?

- Ram buys watch at 100 and sells it to Shyam at 10% loss. 10% of 100 is 10. Therefore,  
→ Cost Price for Ram = 100  
→ Selling Price for Ram =  $100 - (10\% \text{ of } 100 = 10) = 100 - 10 = 90$   
→ Cost Price for Shyam = 90  
→ Selling Price for Shyam =  $90 + (20\% \text{ of } 90 = 18) = 90 + 18 = 108$   
→ Cost Price for Ravi = 108  
→ Selling Price for Ravi =  $108 + (10\% \text{ of } 108 = 10.8) = 108 + 10.8 = 118.8$   
→ Cost Price for Rakesh = 118.8  
→ The initial amount was Rs. 500 and the percentage we considered 100. So for final calculation, the equation becomes,

$$\frac{500}{100} \times 118.8 = 594.0$$

- So, the amount Rakesh spent to buy the watch is Rs. 594.

Q18. Find the mode of the given data:

Marks Obtained	0-20	20-40	40-60	60-80	80-100
Number of students	5	10	12	6	3

Solution:

The highest frequency = 12, so the modal class is 40-60.

$l$  = lower limit of modal class = 40

$fm$  = frequency of modal class = 12

$f1$  = frequency of class preceding modal class = 10

$f2$  = frequency of class succeeding modal class = 6

$h$  = class width = 20

Using the mode formula,

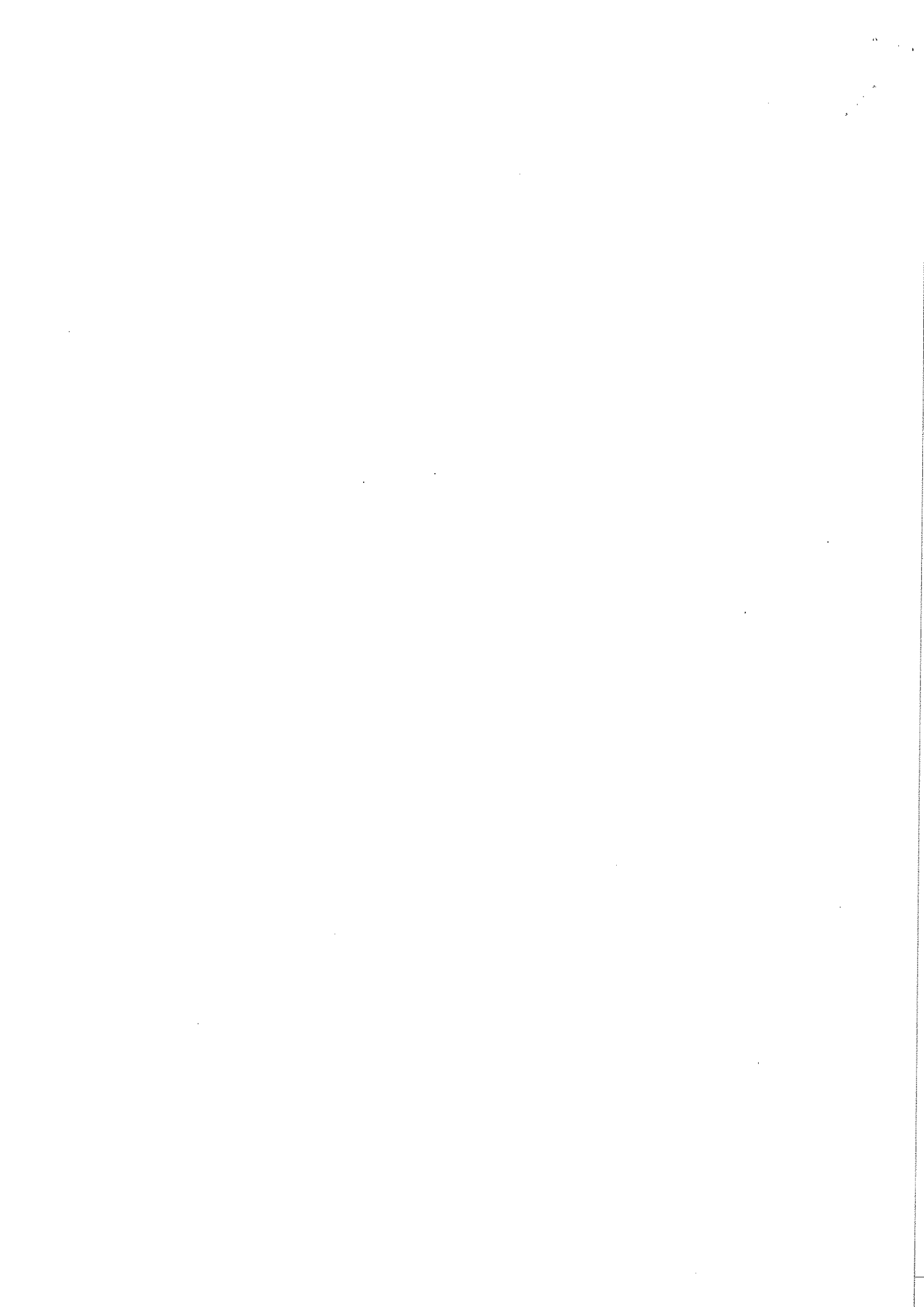
$$\text{Mode} = l + \left[ \frac{fm - f1}{2fm - f1 - f2} \right] \times h$$

$$= 40 + \left[ \frac{12 - 10}{2 \times 12 - 10 - 6} \right] \times 20$$

$$= 40 + \left( \frac{2}{8} \right) \times 20$$

$$= 45$$

$$\therefore \text{Mode} = 45$$





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Section – A

10X01 = 10 Marks

Q1 Nikki has to travel a total of 351 miles. She travels the first 216 miles in 4 hours. Calculate her average speed for the first part of the journey.

- (a) 50
- (b) 51
- (c) 54
- (d) 59

Q2 Find the HCF of 42, 70 and 126.

- (a) 14
- (b) 42
- (c) 12
- (d) 8

Q3 Find the total surface area of the cylinder, whose radius is 5cm and height is 10cm?

- (a) 471 cm<sup>2</sup>
- (b) 552 cm<sup>2</sup>
- (c) 475 cm<sup>2</sup>
- (d) 520 cm<sup>2</sup>

Q4 Mode is the

- (a) middle most frequent value
- (b) least frequent value
- (c) maximum frequent value
- (d) none of these

Q5 A man buys a toy for Rs. 25 and sells it for Rs. 30. Find his gain/loss percentage.

- (a) 10%
- (b) 20%
- (c) 30%
- (d) 35%



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Q6 Find the Median, Mode and Mean of 9,5,8,9,9,7,8,9,8?

- (a) 8,9,8
- (b) 9,8,8
- (c) 8,7,9
- (d) 7,8,9

Q7 Shopkeeper has bought 1 kg of apples for 100 rs. And sold it for Rs. 120 per kg. How much is the profit gained by him?

- (a) 10
- (b) 20
- (c) 30
- (d) 35

Q8 A trader sells 85 m of cloth for Rs. 8,925 at the profit of Rs. 15/m of cloth. What is the cost price of 1 m of cloth?

- (a) Rs. 84
- (b) Rs. 90
- (c) Rs. 96
- (d) Rs. 102

Q9 : In how many ways a committee consisting of 5 men and 3 women, can be chosen from 9 men and 12 women?

- (a) 25550
- (b) 27720
- (c) 27730
- (d) 27700

Q10 A man buys a fan for Rs. 1000 and sells it at a Profit of 15%. What is the selling price of the fan?

- (a) 850
- (b) 1150
- (c) 1000
- (d) 950

### Section – B

04X04 = 16 Marks

Q11. Define Following

Q12. If the value of the side of the cube is 10 cm, then find its surface area and volume.

Q13. If a pen cost Rs.50 after 10% discount, then what is the actual price or marked price of the pen?

Q14. : In a dictionary, if all permutations of the letters of the word AGAIN are arranged in an order. What is the 49th word?



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## Section – C

04X06 = 24 Marks

Q15. Find the mean, median, mode and range for the given data:

90, 94, 53, 68, 79, 94, 53, 65, 87, 90, 70, 69, 65, 89, 85, 53, 47, 61, 27, 80

Q16. Find the volume and Surface Area of the sphere that has a diameter of 10 cm?

Q17. A Shopkeeper buys two bicycles for Rs. 750. He sells first bicycle at a profit of 22% and the second bicycle at a loss of 8%. What is the SP of first bicycle if in the whole transaction there is no profit no loss?

Q18. Two numbers are in the ratio 2: 3. If the sum of numbers is 60, find the numbers.





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10X01 = 10 Marks

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- (a) 50
- (b) 51
- (c) 54
- (d) 59

Q2 Find the HCF of 42, 70 and 126.

- (a) 14
- (b) 42
- (c) 12
- (d) 8

Q3 Find the total surface area of the cylinder, whose radius is 5cm and height is 10cm?

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- (a) 10%
- (b) 20%

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(c) 30%

(d) 35%

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(a) 8,9,8

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(c) 8,7,9

(d) 7,8,9

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(c) Rs. 96

(d) Rs. 102

Q9 : In how many ways a committee consisting of 5 men and 3 women, can be chosen from 9 men and 12 women?

(a) 25550

(b) 27720

(c) 27730

(d) 27700

Q10 A man buys a fan for Rs. 1000 and sells it at a Profit of 15%. What is the selling price of the fan?

(a) 850

(b) 1150

(c) 1000

(d) 950

**Section – B**

04X04 = 16 Marks

Q11. Define Following

**Mean** is the most commonly used measure of central tendency. It actually represents the average of the given collection of data.

**Median** represents the mid-value of the given set of data when arranged in a particular order.

The most frequent number occurring in the data set is known as the **mode**.

Q12. If the value of the side of the cube is 10 cm, then find its surface area and volume.

**Solution:**Given, side,  $a = 10$  cm

Therefore, by the surface area and volume formula of the cube, we can write;

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$$\text{Surface Area} = 6a^2 = 6 \times 10^2 = 6 \times 100 = 600 \text{ cm}^2$$

$$\text{Volume} = a^3 = 10^3 = 1000 \text{ cm}^3$$

Q13. If a pen cost Rs.50 after 10% discount, then what is the actual price or marked price of the pen?

$$\text{Solution: } MP \times (100 - 10) / 100 = 50$$

$$MP \times (90/100) = 50$$

$$MP = (50 \times 100) / 90$$

$$MP = \text{Rs. } 55.55/-$$

Q14. : In a dictionary, if all permutations of the letters of the word AGAIN are arranged in an order. What is the 49th word?

Solution:

Start with the letter A	The arranging the other 4 letters: G, A, I, N = $4! = 24$	First 24 words
Start with the letter G	arrange A, A, I and N in different ways: $4!/2! = 12$	Next 12 words
Start with the letter I	arrange A, A, G and N in different ways: $4!/2! = 12$	Next 12 words

This accounts up to the 48th word. The 49th word is "NAAGI".

**Section – C**

04X06 = 24 Marks

Q15. Find the mean, median, mode and range for the given data:

90, 94, 53, 68, 79, 94, 53, 65, 87, 90, 70, 69, 65, 89, 85, 53, 47, 61, 27, 80

**Solution:**

Given,

90, 94, 53, 68, 79, 94, 53, 65, 87, 90, 70, 69, 65, 89, 85, 53, 47, 61, 27, 80

Number of observations = 20

Mean = (Sum of observations)/ Number of observations

$$= (90 + 94 + 53 + 68 + 79 + 94 + 53 + 65 + 87 + 90 + 70 + 69 + 65 + 89 + 85 + 53 + 47 + 61 + 27 + 80) / 20$$

$$= 1419 / 20$$

$$= 70.95$$

Therefore, mean is 70.95.

Median:

The ascending order of given observations is:

27, 47, 53, 53, 53, 61, 65, 65, 68, 69, 70, 79, 80, 85, 87, 89, 90, 90, 94, 94

Here,  $n = 20$

Median =  $1/2 [(n/2) + (n/2 + 1)]$ th observation

$$1/2 [10 + 11] \text{th observation}$$

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$$= 1/2 (69 + 70)$$

$$= 139/2$$

$$= 69.5$$

Thus, the median is 69.5.

Mode:

The most frequently occurred value in the given data is 53.

Therefore, mode = 53

**Q16. Find the volume And Surface Area of the sphere that has a diameter of 10 cm?**

Given, Diameter,  $d = 10$  cm

We know that  $D = 2 r$  units

Therefore, the radius of a sphere,  $r = d / 2 = 10 / 2 = 5$  cm

To find the volume:

**The volume of sphere =  $4/3 \pi r^3$  Cubic Units**

$$V = (4/3) \times (22/7) \times 5^3$$

Therefore, the volume of sphere,  $V = 522$  cubic units

**The Surface Area of a Sphere(SA) =  $4\pi r^2$  Square units**

$$SA = 4 \times (22/7) \times 5^2$$

$$SA = 4 \times 3.14 \times 25$$

$$SA = 314 \text{ cm}^2$$

Therefore, the surface area of a sphere = 314 square units.

**Q17. . A Shopkeeper buys two bicycles for Rs. 750. He sells first bicycle at a profit of 22% and the second bicycle at a loss of 8%. What is the SP of first bicycle if in the whole transaction there is no profit no loss?**

Solution: CP of 1st bicycle =  $x$

Then CP of 2nd bicycle is  $750 - x$ .

Their SP be  $122/100 \times x$  and  $92/100 \times (750 - x)$

Given that there is no profit no loss.

$$122/100 \times x + 92/100 \times (750 - x)$$

$$= 750 \times 122x + 750 \times 92 - 92x$$

$$= 750 \times 100 \times 122x - 92x$$

$$= 750 \times 100 - 750 \times 92 - 30x$$

$$= 750 \times (100 - 92) - 30x = 200.$$



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SP of 1st bicycle =  $122/100 * 200 = \text{Rs}244$

Q18. Two numbers are in the ratio 2 : 3. If the sum of numbers is 60, find the numbers.

**Solution:**

Given, 2/3 is the ratio of any two numbers.

Let the two numbers be  $2x$  and  $3x$ .

As per the given question, the sum of these two numbers = 60

$$\text{So, } 2x + 3x = 60$$

$$5x = 60$$

$$x = 12$$

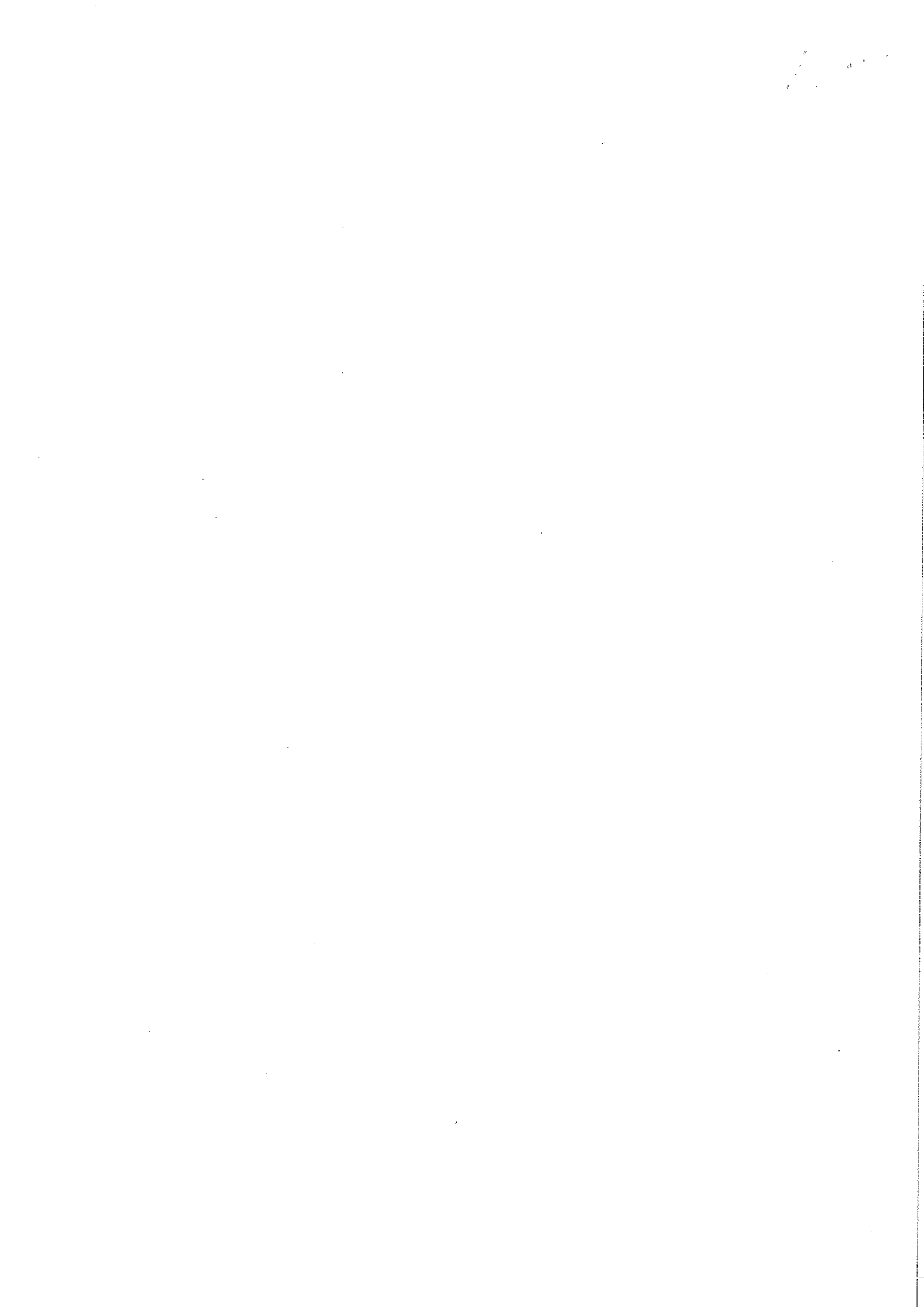
Hence, the two numbers are;

$$2x = 2 \times 12 = 24$$

and

$$3x = 3 \times 12 = 36$$

24 and 36 are the required numbers.





# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of General Education  
Session: 2021-22 (Summer Semester)  
B. Voc. Program  
OPEN ELECTIVE  
End-Sem. Make-Up Examination

Course Code: GEN1111

Time: 2 Hours

Course Name: French Language

Max. Marks: 50

**Instructions:** The question paper comprises three sections A, B & C. Marks allotted are mentioned against each section.

## Section – A

10X01 = 10 Marks

- Q1.** What is the French word for first?  
a) deux  
b) premier  
c) bon  
d) dernier
- Q2.** What is the French word for the last?  
a) dernier  
b) troisieme  
c) premier  
d) cinquieme
- Q3.** What is the French word for day?  
a) moi  
b) mois  
c) jour  
d) annee
- Q4.** What is the French word for month?  
a) jour  
b) moi  
c) annee  
d) mois
- Q5.** What is the French word for week?  
a) annee  
b) semaine  
c) remaine  
d) bonne
- Q6.** What is the French word for beautiful?  
a) beau  
b) grand  
c) belle  
d) bien
- Q7.** What is the French word for notebook?  
a) livre  
b) cahier  
c) stylo  
d) crayon
- Q8.** What is the English word for annee?  
a) month  
b) week  
c) year  
d) day
- Q9.** What is the English word for bienvenue?  
a) Thank you  
b) welcome  
c) very good  
d) good
- Q10.** What is the English word for stylo?  
a) pen  
b) pencil  
c) eraser  
d) scale

Section –B

04X04 = 16 Marks

Q11. Fill in the blanks with the help of Verb "Aller".

- a) Je \_\_\_\_\_ à Jaipur.
- b) Tu \_\_\_\_\_ à Delhi.
- c) Il \_\_\_\_\_ à Mumbai.
- d) Elle \_\_\_\_\_ à Ajmer.
- e) Nous \_\_\_\_\_ à Pune.
- f) Vous \_\_\_\_\_ à Chennai.
- g) Ils \_\_\_\_\_ à Goa.
- h) Elles \_\_\_\_\_ à Lucknow.

Q12. Match the following:

- |          |       |
|----------|-------|
| a) Je    | a     |
| b) Tu    | ont   |
| c) Il    | avez  |
| d) Elle  | ai    |
| e) Nous  | as    |
| f) Vous  | ont   |
| g) Ils   | avons |
| h) Elles | a     |

Q13. Write these numbers in English.

- |                 |                |
|-----------------|----------------|
| a) Quatre _____ | c) Vingt _____ |
| b) Dix _____    | d) Huit _____  |

Q14. Fill in the blanks with the help of Verb "Être".

- a) Je \_\_\_\_\_ garçon.
- b) Tu \_\_\_\_\_ belle.
- c) Il \_\_\_\_\_ grand.
- d) Nous \_\_\_\_\_ indiens.

Section – C

04X06 = 24 Marks

Q 15 Complete the sentences with the help of indefinite articles.

- a) tu es \_\_\_\_\_ fille.
- b) il a \_\_\_\_\_ crayons.
- c) j'ai \_\_\_\_\_ soeur.
- d) tu as \_\_\_\_\_ frère.
- e) elle a \_\_\_\_\_ ami.
- f) il a \_\_\_\_\_ amie.

**Q16. Complete the sentences with the help of days and months).**

- a) Troisième jour de la semaine. \_\_\_\_\_
- b) Cinquième jour de la semaine. \_\_\_\_\_
- c) Quatrième jour de la semaine. \_\_\_\_\_
- d) Neuvième mois de l'année. \_\_\_\_\_
- e) Premier mois de l'année. \_\_\_\_\_
- f) Dernière jour de la semaine. \_\_\_\_\_

**Q17. Write these numbers in French.**

- a) 11 \_\_\_\_\_
- b) 18 \_\_\_\_\_
- c) 13 \_\_\_\_\_
- d) 03 \_\_\_\_\_
- e) 09 \_\_\_\_\_
- f) 07 \_\_\_\_\_

**Q18. Write these words in French**

- a) Thank you
- b) Good evening
- c) Good night
- d) Handsome
- e) Friend
- f) Father

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# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of General Education

Session: 2021-22 (Summer Semester)

B. Voc. Program,

OPEN ELECTIVE (Answer Key)

End-Sem. Examination

Course Code: GEN1111

Time: 2 Hours

Course Name: French Language(OE)

Max. Marks: 50

Instructions: The question paper comprises three sections A, B & C. Marks allotted are mentioned against each section.

## Section – A

10X01 = 10 Marks

- Q1. What is the French word for first?  
a) deux  
b) **premier**  
c) bon  
d) dernier
- Q2. What is the French word for the last?  
a) **dernier**  
b) troisieme  
c) premier  
d) cinquieme
- Q3. What is the French word for day?  
a) moi  
b) mois  
c) **jour**  
d) annee
- Q4. What is the French word for month?  
a) jour  
b) moi  
c) annee  
d) **mois**
- Q5. What is the French word for week?  
a) annee  
b) **semaine**  
c) remaine  
d) bonne
- Q6. What is the French word for beautiful?  
a) beau  
b) grand  
c) **belle**  
d) bien
- Q7. What is the French word for notebook?  
a) livre  
b) **cahier**  
c) stylo  
d) crayon
- Q8. What is the English word for annee?  
a) month  
b) week  
c) **year**  
d) day
- Q9. What is the English word for bienvenue?  
a) Thank you  
b) **welcome**  
c) very good  
d) good
- Q10. What is the English word for stylo?  
a) **pen**  
b) pencil  
c) eraser  
d) scale

Section – B

Q11. Fill in the blanks with the help of Verb “Aller”.

04X04 = 16 Marks

- a) Je \_\_\_\_\_ vais \_\_\_\_\_ à Jaipur.
- b) Tu \_\_\_\_\_ vas \_\_\_\_\_ à Delhi.
- c) Il \_\_\_\_\_ va \_\_\_\_\_ à Mumbai.
- d) Elle \_\_\_\_\_ va \_\_\_\_\_ à Ajmer.
- e) Nous \_\_\_\_\_ allons \_\_\_\_\_ à Pune.
- f) Vous \_\_\_\_\_ allez \_\_\_\_\_ à Chennai.
- g) Ils \_\_\_\_\_ vont \_\_\_\_\_ à Goa.
- h) Elles \_\_\_\_\_ vont \_\_\_\_\_ à Lucknow.

Q12. Match the following:

- |          |       |
|----------|-------|
| a) Je    | ai    |
| b) Tu    | as    |
| c) Il    | a     |
| d) Elle  | a     |
| e) Nous  | avons |
| f) Vous  | avez  |
| g) Ils   | ont   |
| h) Elles | ont   |

Q13. Write these numbers in English.

- |           |      |          |        |
|-----------|------|----------|--------|
| a) Quatre | Four | c) Vingt | Twenty |
| b) Dix    | Ten  | d) Huit  | Eight  |

Q14. Fill in the blanks with the help of Verb “Être”.

- a) Je \_\_\_ suis \_\_\_ garçon.
- b) Tu \_\_\_ es \_\_\_ belle.
- c) Il \_\_\_ est \_\_\_ grand.
- d) Nous \_\_\_ sommes \_\_\_ indiens.

Section – C

Q 15 Complete the sentences with the help of indefinite articles.

04X06 = 24 Marks

- a) tu es \_\_\_ une \_\_\_ fille.
- b) il a \_\_\_ des \_\_\_ crayons.
- c) j'ai \_\_\_ une \_\_\_ soeur.
- d) tu as \_\_\_ un \_\_\_ frère.
- e) elle a \_\_\_ un \_\_\_ ami.
- f) il a \_\_\_ une \_\_\_ amie.

Q16. Complete the sentences with the help of days and months).

- a) Troisième jour de la semaine. \_\_\_\_\_ mercredi \_\_\_\_\_  
b) Cinquième jour de la semaine. \_\_\_\_\_ vendredi \_\_\_\_\_  
c) Quatrième jour de la semaine. \_\_\_\_\_ jeudi \_\_\_\_\_  
d) Neuvième mois de l'année. \_\_\_\_\_ septembre \_\_\_\_\_  
e) Premier mois de l'année. \_\_\_\_\_ janvier \_\_\_\_\_  
f) Dernière jour de la semaine. \_\_\_\_\_ dimanche \_\_\_\_\_

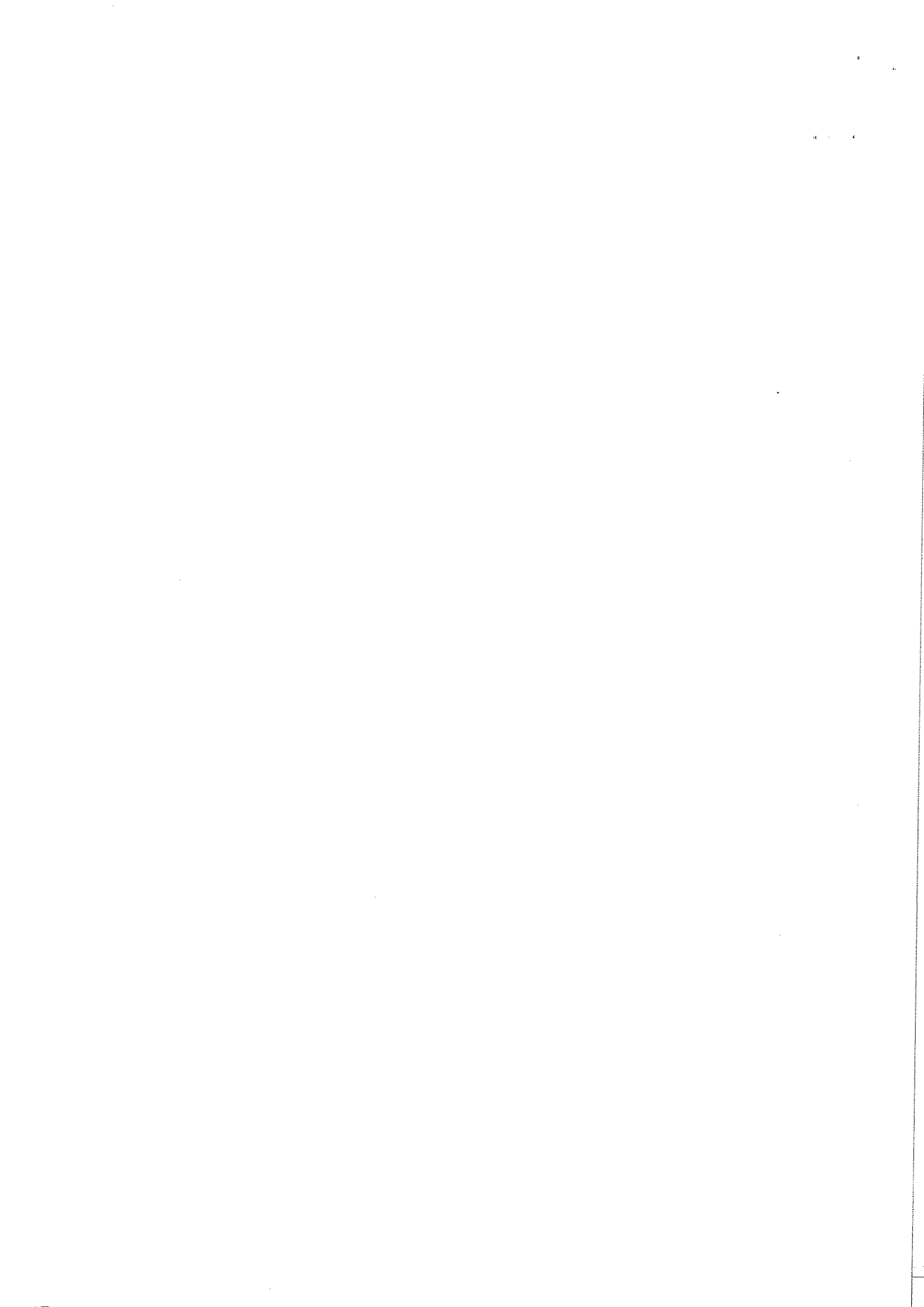
**Q17. Write these numbers in French.**

- a) 11 \_\_\_\_\_ onze \_\_\_\_\_  
b) 18 \_\_\_\_\_ dix-huit \_\_\_\_\_  
c) 13 \_\_\_\_\_ treize \_\_\_\_\_  
d) 03 \_\_\_\_\_ trois \_\_\_\_\_  
e) 09 \_\_\_\_\_ neuf \_\_\_\_\_  
f) 07 \_\_\_\_\_ sept \_\_\_\_\_

**Q18. Write these words in French**

- a) Thank you            merci  
b) Good evening        bonsoir  
c) Good night            bonne nuit  
d) Handsome            beau  
e) Friend                amie/ami  
f) Father                père

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# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of General Education

Session: 2021-22 (Summer Semester)

B. Voc. Program, OPEN ELECTIVE

End-Sem. Examination

Course Code: GEN1114

Time: 2 Hours

Course Name: Open Access E-resources and Software

Max Marks: 50

## Section- A

10x1 =10

1. ....are collections of short, factual entries often written by different contributors who are knowledgeable about the topic.
  - a) Encyclopedias
  - b) Academic Journals
  - c) Magazines
  - d) None of these
2. ....is an organized and searchable collection of records of every item in a library and can be found on the library home page.
  - a) Library shelves
  - b) Library Counter
  - c) Library Software
  - d) Library catalog
3. Full form of DOAJ is.....
  - a) Directory of Open Allow Journals
  - b) Directory of Open Access Journals
  - c) Directory of Open Australian Journals
  - d) None of the above
4. National Digital Library of India's project developed by.....
  - a) IIT Delhi
  - b) IIT Kharagpur
  - c) IIT Madras
  - d) IIT Jodhpur
5. E-Gyankosh is a.....
  - a) Repository of Digital Learning Resources developed by IGNOU.
  - b) Repository of PG Learning Resources developed by IIT Kharakpur.
  - c) An E-resources database provided by INFLIBNET.
  - d) All of the above
6. ....is the full form of DELNET.
  - a) Developing Liaison Networking
  - b) Developing Library Network
  - c) Directory or Learning Network
  - d) None of the above



## GEN1114(B)

### Answer Key –

1.a

2.b

3.b

4.b

5.a

6.b

7.a

8.a

9.a

10.b

**11. Five laws of Library Science** - The Five Laws of Library Science were enunciated in 1928 by the late Dr. S. R. Ranganathan, the Librarian of the University of Madras. He was in search of some principles which could tell us what should be done: in the library field to make library organization; management and operation efficient and universalize its services. The outcome of this line of thinking of 'Ranganathan was the formal enunciation of the Five Laws of Library Science. These laws are:

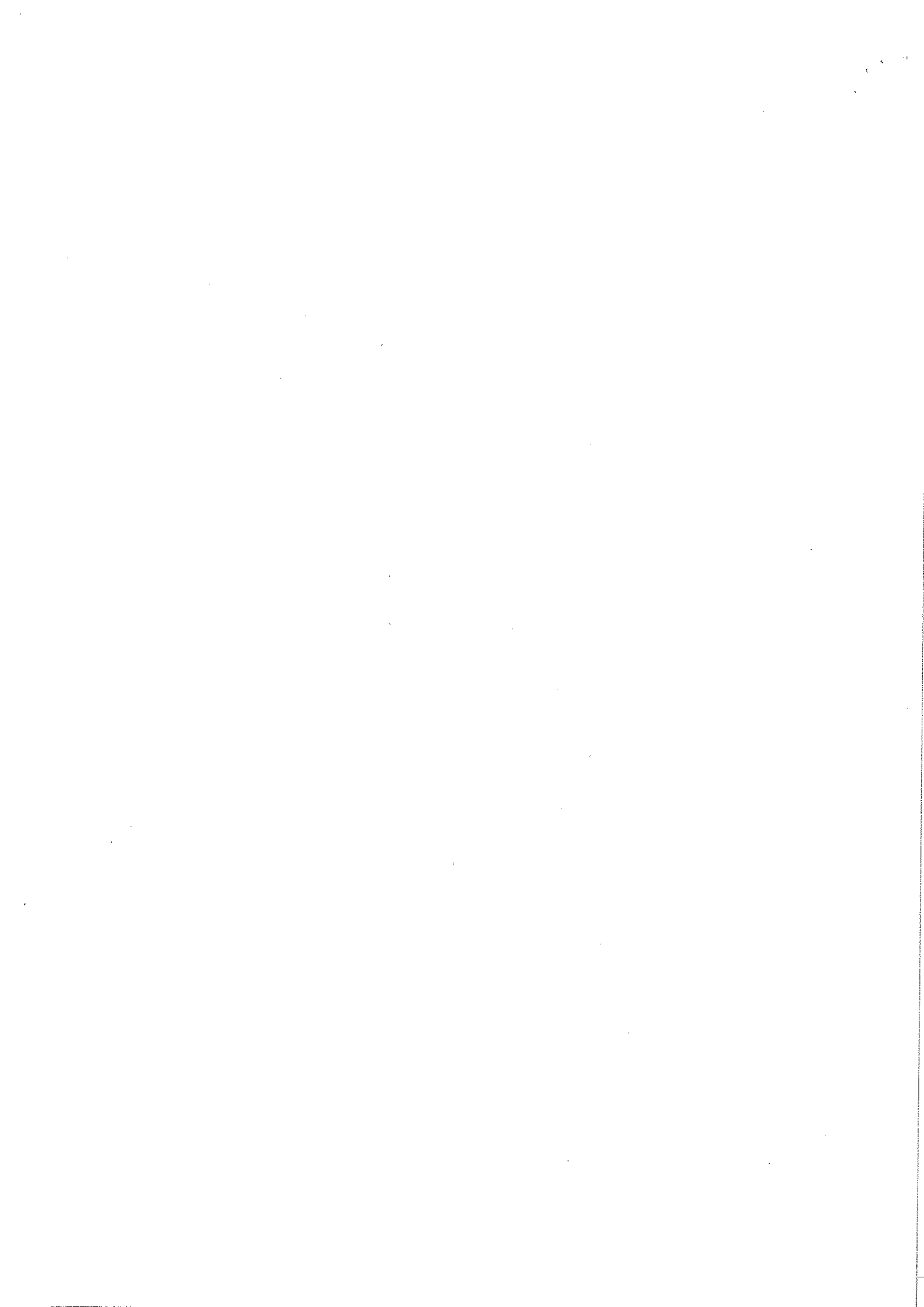
- First Law: Books are for use.
- Second Law: Every reader his or her book.
- Third Law: Every book its reader.
- Fourth Law: Save the time of the reader.
- Fifth Law: A library is a growing organism.

**12. NDLI** - Part of NMC-ICT (NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY).

It is a **digital** repository containing textbooks, articles, videos, audio books, lectures, simulations, fiction and all other kinds of learning media. The NDLI provides free of cost access to many books in the **Indian** languages and English.

Project under Ministry of Education, GOI.

The objective is to collect and collate metadata provide full text index from several national and international digital libraries, as well as other relevant sources. It is a digital repository containing textbooks, articles, videos, audio books, lectures, simulations, fiction and all other kinds of



learning media. The NDLI provides free of cost access to many books in the Indian language and English.

Presently you can search 80553490 documents by the NDLI.

**13. Information and Library Network (INFLIBNET)** Centre, Gandhinagar is an Autonomous Inter-University Centre (IUC) of UGC, New Delhi (Ministry of Education, Govt. of India). It is a major National Programme initiated by the UGC in March 1991 as a project under the IUCAA, it became an independent Inter-University Centre in June 1996. INFLIBNET is involved in modernizing university libraries in India using the state-of-art technologies for the optimum utilization of information. (<https://inlibnet.ac.in>)

- Established in 1991 at Gandhinagar, Gujrat

**14. ISBN consists of 5 elements** with each section being separated by spaces or hyphens.

Three of the five elements may be of varying length:

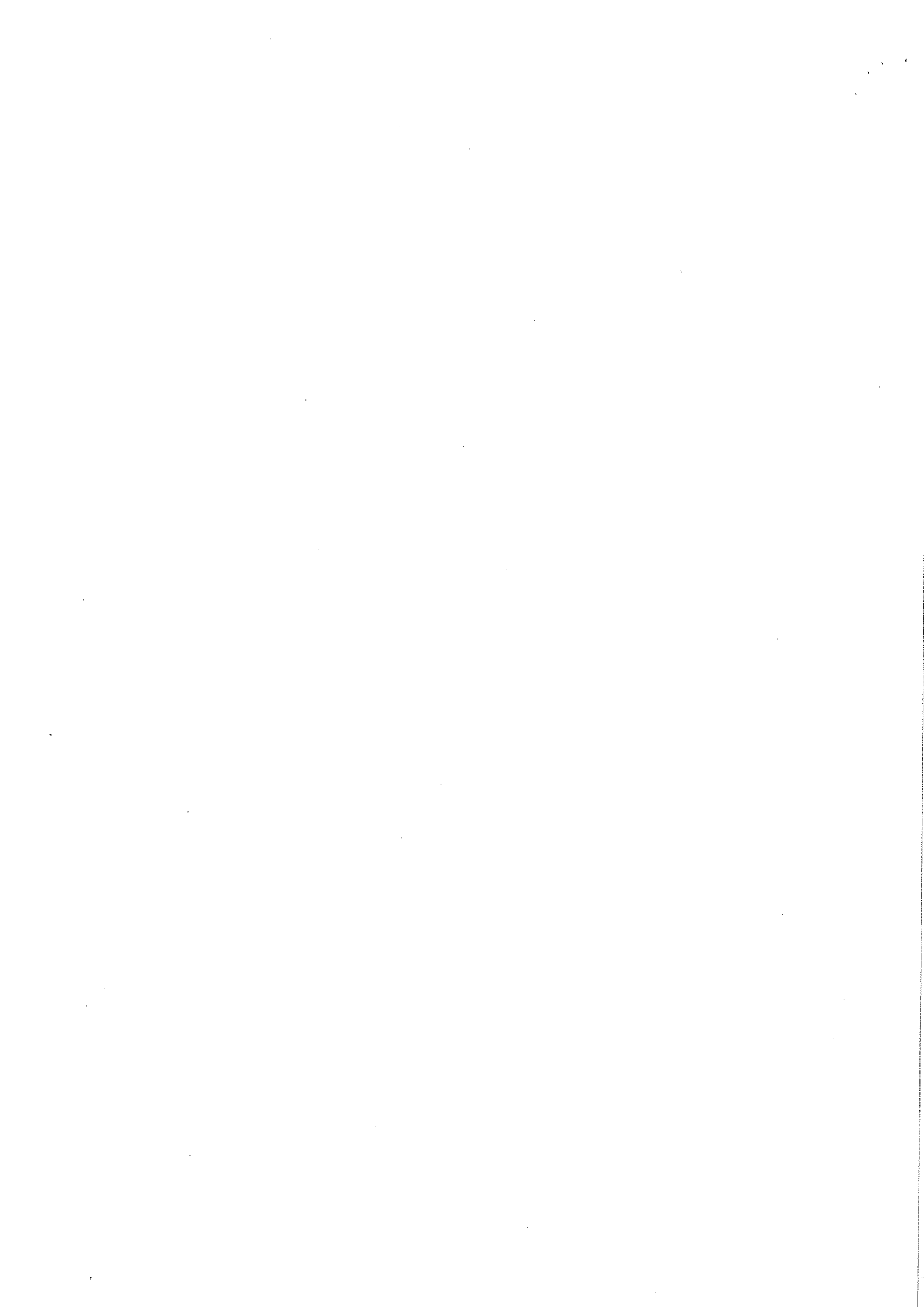
- Prefix element – currently this can only be either 978 or 979. It is always 3 digits in length
- Registration group element – this identifies the particular country, geographical region, or language area participating in the ISBN system. This element may be between 1 and 5 digits in length.
- Registrant element - this identifies the particular publisher or imprint. This may be up to 7 digits in length
- Publication element – this identifies the particular edition and format of a specific title. This may be up to 6 digits in length
- Check digit – this is always the final single digit that mathematically validates the rest of the number. It is calculated using a Modulus 10 system with alternate weights of 1 and 3

**15. Types of Online Information Sources** - In general, web pages and documents on the internet that provide useful information. While an **online** resource is typically data and educational in nature, any support software available **online** can also be considered a resource.

The **resources** that are accessible via the Internet and World Wide Web. Materials, notes, timetables, notices, etc., available **online** for reading.

Various online e-resources are – E-books, e-journals, e-databases, e-newspapers, e-patents, e-maps, webpages, blogs, Forums,

- An **ebook** (short for **electronic book**), also known as an **e-book** or **eBook**, is a book publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display of computers or other electronic devices. (Wiki)
- **E-book**, in full **electronic book**, digital file containing a body of text and images suitable for distributing electronically and displaying on-screen in a manner similar to a printed book. E-books can be created by converting a printer's source files to formats



optimized for easy downloading and on-screen reading, or they can be drawn from a database or a set of text files that were not created solely for print.

- **Electronic journals or e-journals** may be defined very broadly as any **journals**, magazines, e-zine, web-zine, newsletter or **type of electronic** serial publication which is available over the internet and can be accessed using **different** technologies such as www, gopher ftp, telnet, e-mail, or list serve.
- **Sage e-journals, Directory of Open Access Journals (DOAJ)**
- **Electronic databases (E-databases)** are organized collections of data, or information, that are stored in computer-readable form. In general, electronic **databases** are of two types: those that can be accessed by large mainframe computers and those that can be accessed by small personal computers.
- Electronic databases are accessed mainly through online search services (i.e., database vendors) and/or directly through the Internet. These services provide online databases together with software for search and retrieval, data manipulation, and modeling.

**16. What is Library** - Library is a social agency which has been created by actual necessities in modern civilization. Library and society are interlinked and independent. Library is a social institution charged with the function of assemble, organize, preserve, socialize and serve all expressed thought embodied as manuscripts, books, periodicals, journals etc. International Organization for Standardization has defined a library as "irrespective of the title, any organized collection of printed books and periodicals or of any other graphic or audio-visual materials, and the service of the staff to provide and facilitate the use of such materials as are required to meet the research, informational, educational or recreational needs of its users

#### **Types of Library -**

**2.1 National Library-** The feeling that there must be place where the country's intellectual heritage may be collected, preserved and kept for use by the present and coming generation resulted in setting up national libraries in many countries. National library plays the role of the depository and repository of country's printed cultural heritage as well as the main bibliographic centre within the orbit of the system. It produces a national bibliography, hold and keep up to date a large national and representative collection of foreign literature including books about the country, act as national bibliographical information centre, compile union catalogues, publish the retrospective national bibliography. For e.g. Library of Congress (New York) is world's largest national library and in India, the largest national library is The National Library of India (Kolkata).

**2.2 Public Library-** A public library has been regarded as an integral part of the social framework from the very beginning. It is considered as a social agency charged with the responsibility of serving the information needs of the society. Public library is probably the one public agency to provide education to one and all within the society without the



distinction of caste, colour, creed, and nationality. That is why it is called as a 'People's University'.

**2.3 Special Library-** Special library means a library which is concerned almost exclusively with the literature of a particular subject or group of subjects. It also includes libraries with the collection of a particular form of materials.

**2.4 Academic Library-** An academic library is a library attached to an academic institution, i.e. an institution engaged in teaching or research and imparts formal education to students who aspire to complete a particular course under a prescribed syllabus. It exists to cater the needs and requirements of their parent academic institution. Academic libraries have become most important in academic institutions due to changed nature of education. Tremendous growth in the student population; opening of new academic institutions; rapid expansion of education; growing emphasis on qualitative education and high cost of books are some of the factors which necessitate the establishment of a well-equipped academic library.

17. What is plagiarism and which plagiarism software is using your University. Brief five types of plagiarism.

The word Plagiarism originated from the Latin word "plagiarius", which means kidnapping, or plundering. The English word "plagiary" firstly surfaced in 1601 in Ben Johnson's, "The Poetaster", means a literary thief who wrongfully takes another's words or ideas.

Definition New Oxford American Dictionary- "Plagiarism is the practice of taking someone else's work or ideas and passing them off as one's own". Merriam-Webster Dictionary- "Plagiarism means to steal and pass off (the ideas or words of another) as one's own. To use (another's production) without crediting the source"

URKUND Plagiarism is using in our University.

#### **Types of Plagiarism:**

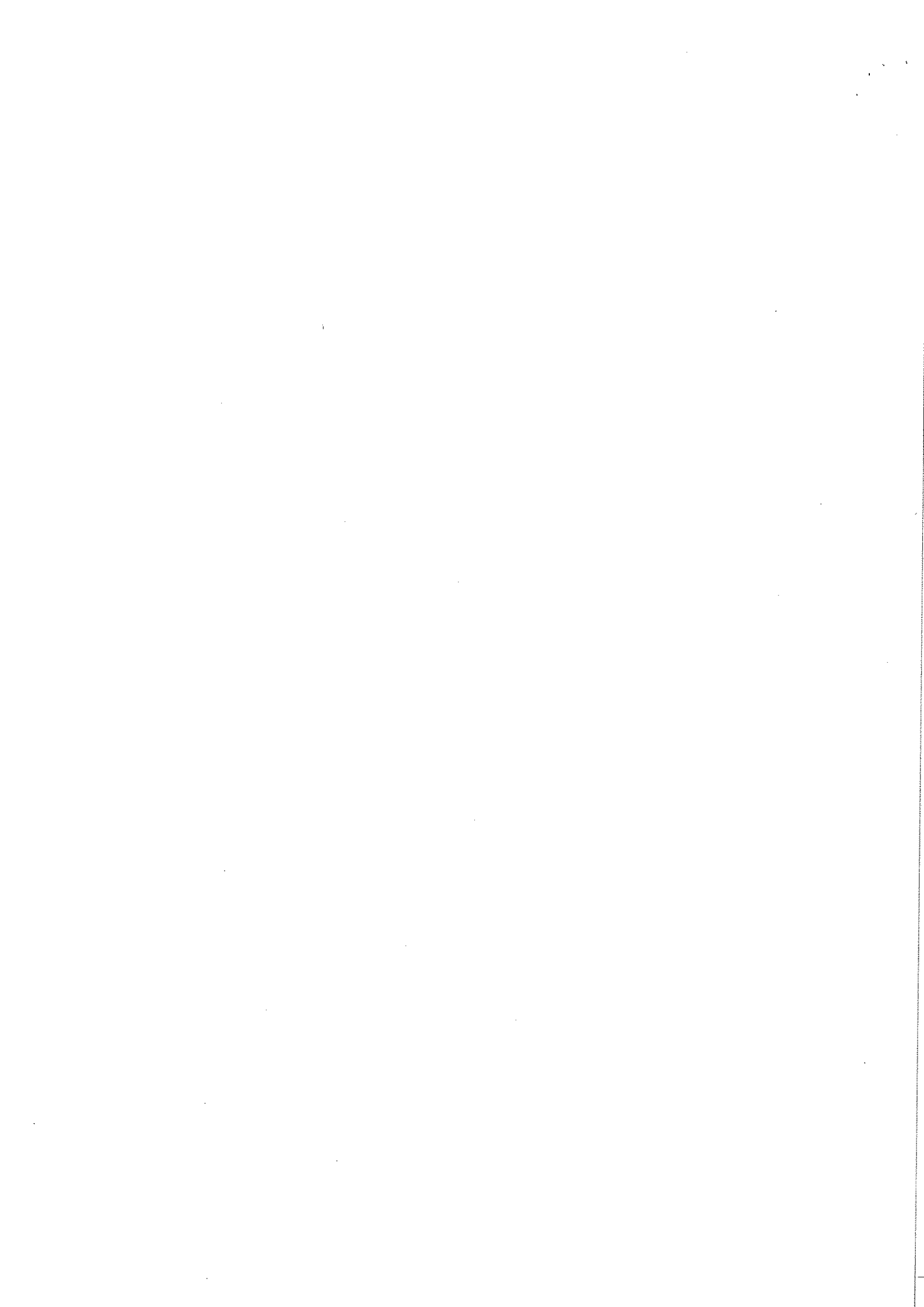
There are different types of plagiarism and all are serious violations of academic honesty.

The general types of plagiarism are as follows: -

**DIRECT PLAGIARISM:** Direct plagiarism is the word- for- word transcription of a section of someone else's work without attribution and without quotation marks. The deliberate plagiarism of someone else's work is unethical academically dishonesty and ground for disciplinary actions, including expulsion.

**SELF-PLAGIARISM:** Self-plagiarism occurs when a student submits his/her own previous work, or mixes part of previous works, without permission from all professors involved.

**MOSAIC PLAGIARISM** Mosaic plagiarism occurs when a student borrows phrases from a source without using quotation marks or find synonyms for author's language, while keeping the same general structure and meaning of the original. It is also called patch writing.

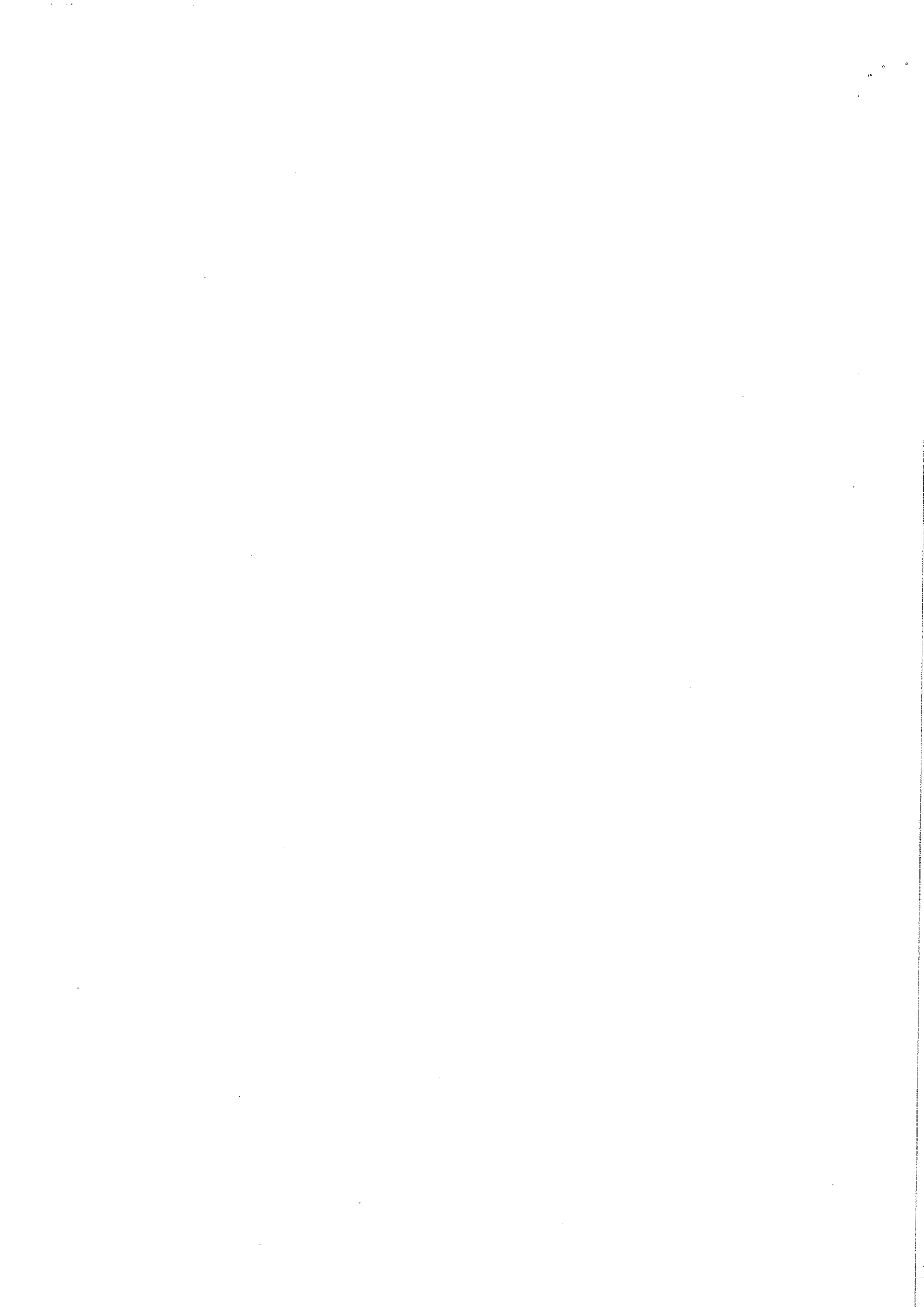


**ACCIDENTAL PLAGIARISM** Accidental plagiarism occurs when a person neglects to cite their sources or misquotes their sources or unintentionally paraphrases a source by using similar words, group of word and sentence structure without attribution

**Paraphrasing Plagiarism** – When you change the wording of your sources' information without giving due credit.

### **18. What is DELNET? Write Services of DELNET.**

- DELNET has been established with the prime objective of promoting resource sharing among the libraries through the development of a network of libraries.
- Established in 1988 and was registered as a society in 1992.
- It was initially supported by the National Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Research, Government of India.
- Resources discovery through DELNET Databases - Union Catalogue of Books, Union List of Current Periodicals, Union Catalogue of Periodicals, Database of Periodical Articles, CD-ROM Database, Union List of Video Recordings, Union List of Sound Recordings, Database of Theses and Dissertations, Union List of Newspapers, Database of E-books, Profile of Member-Libraries.
- Inter Library Loan and Documents Delivery Services - DELNET is offering inter-Library loan & Document Delivery Services to its member libraries. ILL requests can be registered online for books. For the resources not available in the union catalogues and journal articles, requests can be sent to DELNET through E-mail. DELNET has also prepared ILL Guidelines for use by the member-libraries. The services are quite popular among the member-libraries.
- **Reference Services** - DELNET maintains a referral centre which provides reference facilities to participating libraries.  
This center also looks after the access to the central databases and provides prompt replies.
- **Professional Service/Training** - DELNET arranges tutorials, workshops, lectures, and training programmes every year from time to time besides the National Convention on Knowledge, Library and Information Networking (NACLIN).
- **Software support** - DELNET adopts the latest dependable technologies in information science. This helps libraries to get advice from DELNET to adopt technologies that emerge periodically. This also saves expenses and time of member-institutions.









# BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Registration No.: .....

School of General Education  
Session: 2021-22 (Summer Semester)  
B. Voc. Program, OPEN ELECTIVE  
End-Sem. Examination

Course Code: GEN1114

Time: 2 Hours

Course Name: Open Access E-resources and Software

Max Marks: 50

### Section- A

10x1 =10

1. Collection of documents in organized electronic form is a.....
 

a) Public Library	c) Hybrid Library
b) Digital Library	d) Virtual Library
  
2. ....is a collection of articles about current events usually published daily.
 

a) Journal	c) Newspaper
b) Book	d) None of the above
  
3. ....is a book publication made available in digital form, consisting of text, images, or both.
 

a) Book	c) E-book
b) Both	d) None of the above
  
4. CeRA is example of .....
 

a) E-Database	c) E-Journal
b) E-Package	d) None of these
  
5. ....is the full form of NPTEL.
 

a) National Programme on Technology Enhanced Learning
b) Newly Programme on Technology Enhanced Learning
c) National Programme on Task Enhanced Learning
d) National Programme of Telephone Engineering Learning
  
6. ....is a Digital Library Software.
 

a) KOHA	c) URKUND
b) Dspace	d) All of the above

7. What is virtual library?
- a) Place that stores, process and transfer via digital devices and Networks
  - b) Library that does not exist in real life and consists of material organized in virtual space using computer Networks
  - c) Library based on collection of e-resources house
  - d) Library synonymous to digital library.
8. National agency for ISBN in India...
- a) Raja Ram Mohan Rai national Agency, Kolkata
  - b) INFLIBNET, Gandhinagar
  - c) National Science Library, New Delhi
  - d) None of these
9. Which is academic library?
- a) University Library
  - b) School Library
  - c) College Library
  - d) All the above
10. What is Shodhganga?
- a) Repository of Open access of thesis and dissertation
  - b) Repository of Open Access Journals and magazine
  - c) Repository of Open Access Books
  - d) None of above

**Section- B**

**4x4=16**

11. What is Digital Library?
12. Brief about NPTEL.
13. Brief the need of Library Automation.
14. Brief about the DELNET.

**Section- C**

**4x6=24**

15. Brief in detail of "Shodhgangotri, Shodhganga, E-shodhshudhi and E-shodhsindhu".
16. What are Objectives and functions of the INFLIBNET?
17. Brief the types of Information services.
18. What is copyright? Brief in copyright terms.

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GEN 1114 (A)

**Answer Key**

**1. a**

**2.c**

**3.c**

**4.a**

**5.a**

**6.b**

**7.b**

**8.a**

**9.d**

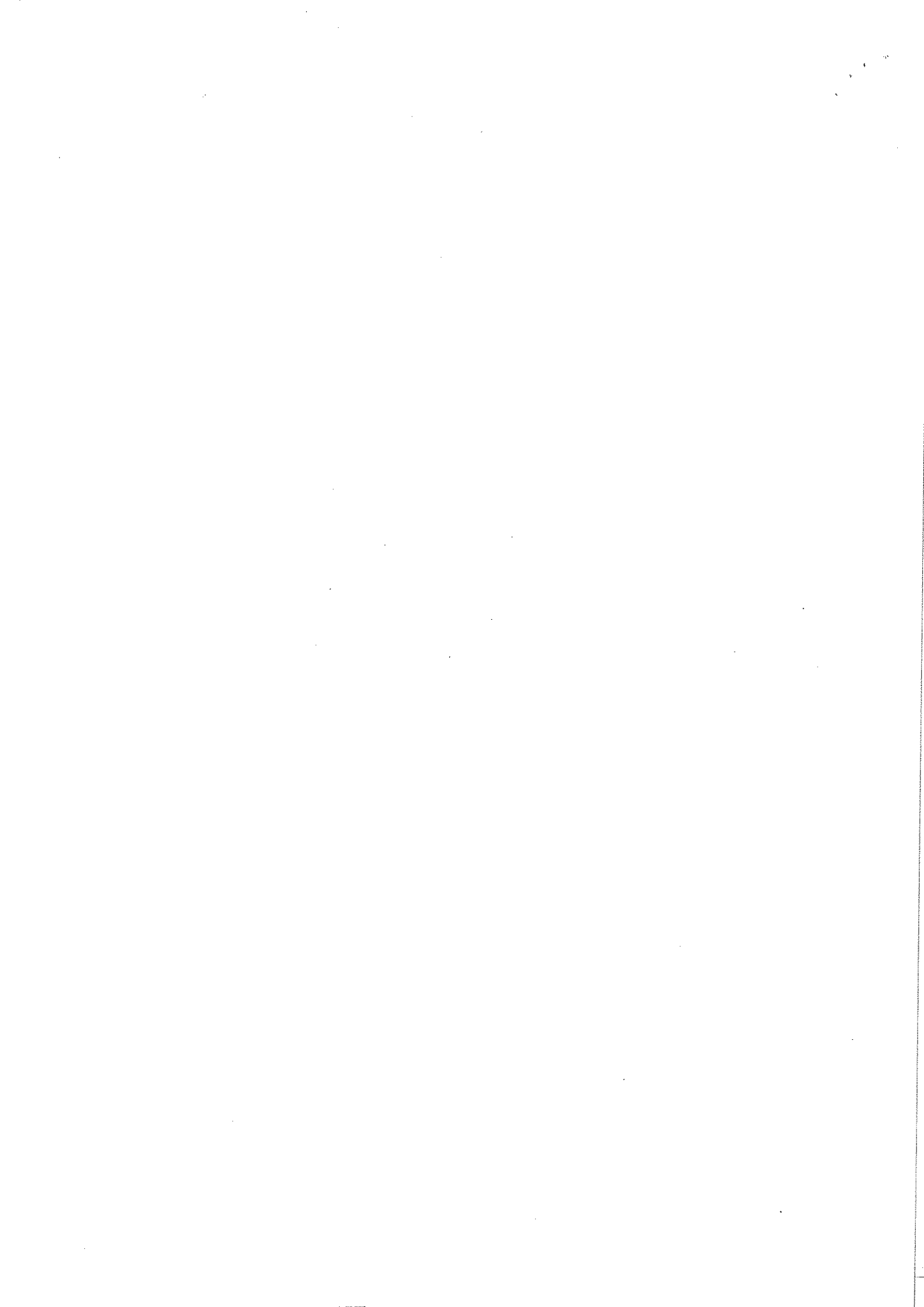
**10.a**

**11.** A library in which collections are stored in digital formats and accessible by computers. - A digital library is a collection of documents in organized electronic form, available on the Internet or on CD-ROM (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos. Organized collections of digital information.

A digital library is a specialized library that can include a centralized collection of digital objects, including texts, visual materials, audio materials, video materials, files stored as electronic media formats, and ways to organize, store, and recover media. Digital libraries can vary immensely in size and scope and can be maintained with individuals, organizations, or established physical library buildings or institutions with approved or academic institutions. The electronic content may be stored locally or accessed remotely via computer networks. An electronic library is a type of data retrieval system

**12. NPTEL –**

Funded by Ministry of Education, GOI, under NME-ICT. The National Programme on Technology Enhanced Learning (NPTEL) - was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of



Science, Bangalore in 2003. Five core disciplines were identified, namely, civil engineering, computer science and engineering, electrical engineering, electronics and communication engineering and mechanical engineering and 235 courses in web/video format were developed in this phase.

The main goal of NPTEL Phase II (2009-14) was to build on the engineering and core science courses launched previously in NPTEL Phase I. An additional 600 web and video courses were created in all major branches of engineering, physical sciences at the undergraduate and postgraduate levels and management courses at the postgraduate level. Several improvements such as indexing of all video and web courses and keyword search were implemented.

### **13. Need of Library Automation:**

There are several reasons for automation.

A considerable saving in efforts, Time and resources involved in manual processing can be achieved. The other reasons are:

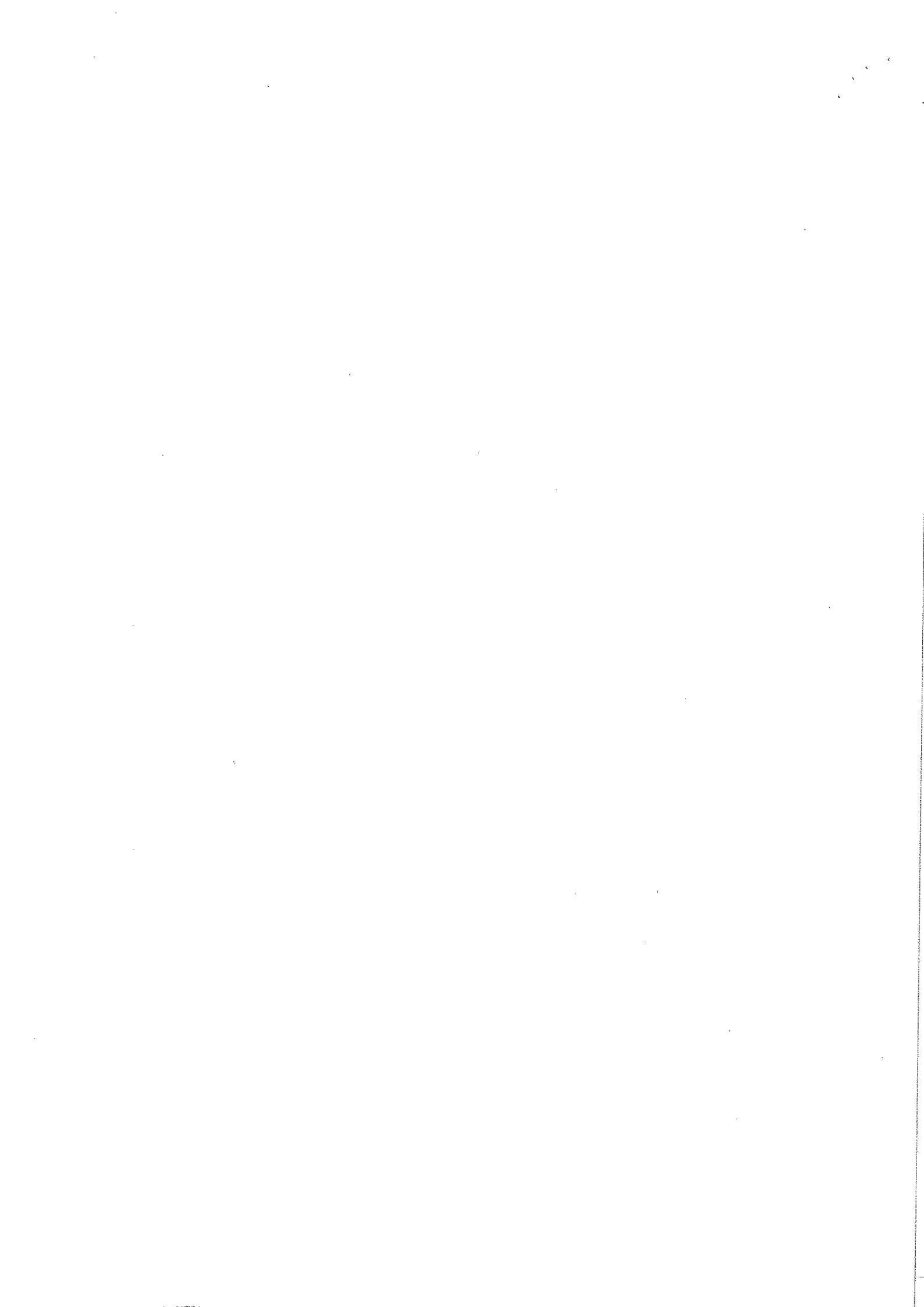
- 1) To improve control over collection.
- 2) To have an entries control over the entire operation.
- 3) To improve the existing services as well as introduce new services.
- 4) To avoid duplicate of work.
- 5) To use services of the existing staff effectively.

From the library point of view automation in library is also necessary because:

- 1) Largely textual in nature.
- 2) Bibliographic record is of variable length.
- 3) A field in a record may repeat many times.
- 4) File size is usually varying large.
- 5) Updating of files are done almost every day.
- 6) To record the date accurately, special devices are required.

**14. DELNET** has been established with the prime objective of promoting resource sharing among the libraries through the development of a network of libraries. Established in 1988 and was registered as a society in 1992. It was initially supported by the National Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Research, Government of India.

**15. Shodhgangotri** called Synopsis of Indian Research.



Shodhgangotri is digital platform in which the synopsis submitted for research in Indian Institutions is stored digitally. Synopsis is submitted by researchers for Ph.D in universities or research institutes. Which is deposited in Shodh Gangotri by universities or research institutes. Like Shodhganga, Shodhgangotri is also operated by INFLIBNET. Where digital form of Ph.D thesis is submitted in Shodhganga, similarly digital synopsis of Ph.D is submitted in Shodhgangotri. With this effort of INFLIBNET, where it is easy for the researchers to select the topic for research, the repetition of any topic will also be avoided. Like Shodhganga, Shodhgangotri is also operated by INFLIBNET

**Shodhganga** – Shodhganga" is the name coined to denote digital repository of Indian Electronic Theses and Dissertations set-up by the INFLIBNET Centre. The word "Shodh" originates from Sanskrit and stands for research and discovery. The "Ganga" is the holiest, largest and longest of all rivers in Indian subcontinent. The Ganga is the symbol of India's age-long culture and civilisation, everchanging, ever-flowing, ever-loved and revered by its people, and has held India's heart captive and drawn uncounted millions to her banks since the dawn of history. Shodhganga stands for the reservoir of Indian intellectual output stored in a repository hosted and maintained by the INFLIBNET Centre.

It has been observed that "online availability of electronic theses through centrally maintained digital repositories will not only ensure easy access and archiving of these but will also help in raising the quality and standard of research

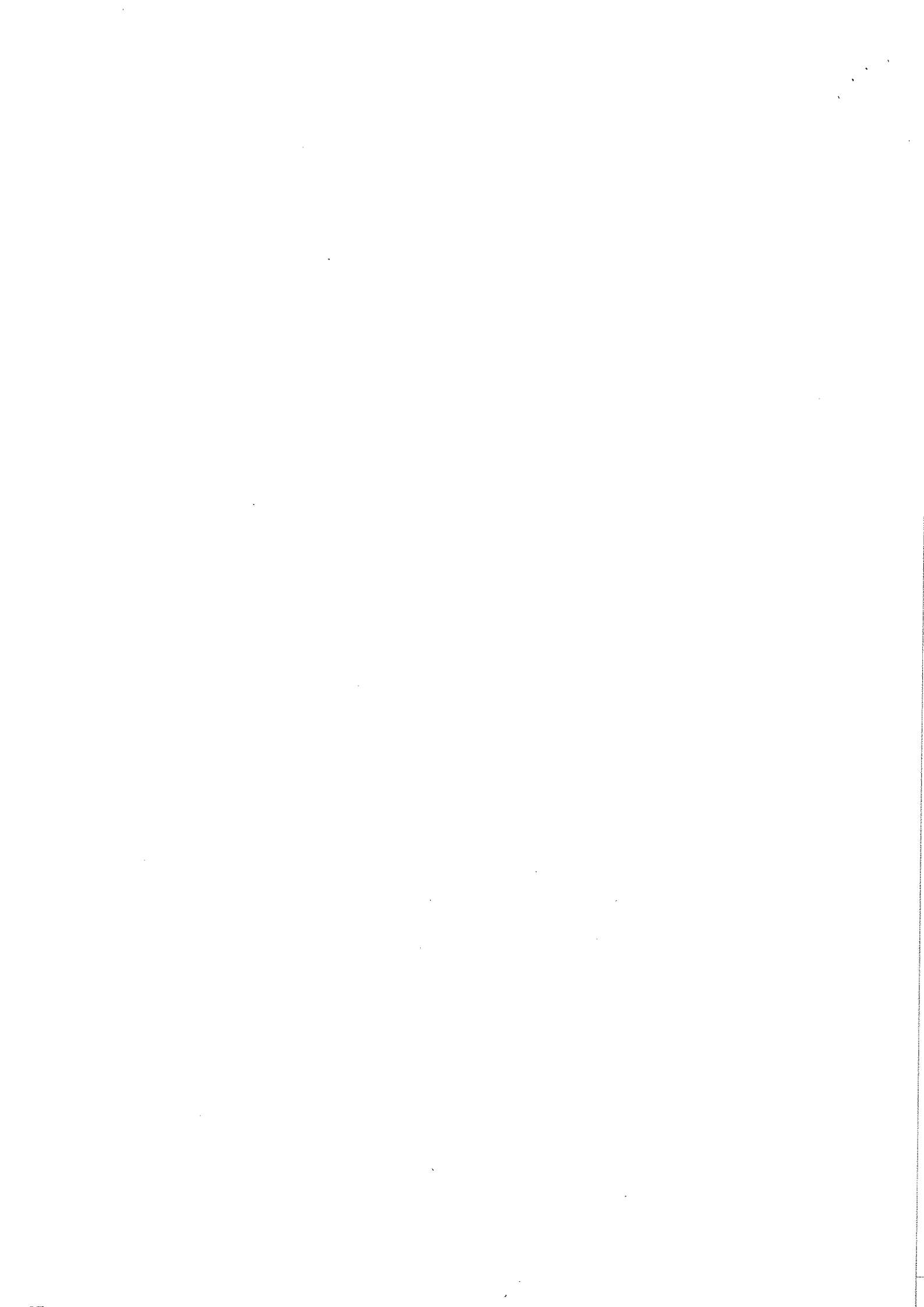
**E-Shodhsindhu** - Based on the recommendation of an Expert Committee, the Ministry of HRD (now renamed as Ministry of Education) has formed e-ShodhSindhu merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-ShodhSindhu will continue to provide current as well as archival access to more than 10,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act.

**Aims and Objectives**



- The main objective of the e-ShodhSindhu: Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rates of subscription. The major aims and objectives of the e-Shodh Sindhu are as follows:
- Setting-up e-ShodhSindhu: Consortia for Higher Education E-Resources by augmenting and strengthening activities and services offered by three MHRD-funded Consortia;
- Develop a formidable collection of e-journals, e-journal archives and e-books on perpetual access basis;
- Monitor and promote usage of e-resources in member universities, colleges and technical institutions in India through awareness and training programmes;
- Provide access to subscription-based scholarly information (e-books and e-journals) to all educational institutions;
- Provide access to scholarly content available in open access through subject portals and subject gateways;
- Bridge digital divide and move towards an information-rich society;
- Provide access to selected e-resources to additional institutions including open universities and MHRD-funded institutions that are not covered under existing consortia;
- **Shodhsudhi** - Based on the recommendation of Sub-Committee, National Steering Committee (NSC) of e-ShodhSindhu, The Ministry of Education, Govt. of India has initiated a programme "ShodhShuddhi" which provides access to Plagiarism Detection Software (PDS) to all universities/Institutions in India since Sept 1, 2019. 1000+ institutions are identified which includes
  - Central Universities
  - State Universities
  - Deemed to be University
  - Private Universities
  - Centrally funded Technical Institutions(CFTIs)
  - Inter University Centre (IUCs) of UGC
  - Under this initiative, Ouriginal (formerly Urkund) a Web Based Plagiarism Detection Software system is being provided to all users of universities/Intuitions in the country. This initiative is formally launched by Former Minister of Education (formerly MHRD) on September 21, 2019. (INFLIBNET)

**16. Information and Library Network (INFLIBNET) Centre,** Gandhinagar is an Autonomous Inter-University Centre (IUC) of University Grants Commission, New Delhi (Ministry of Education, Govt. of India). It is a major National Programme initiated by the UGC in March 1991 as a project under the IUCAA, it became an independent Inter-University Centre in June 1996.



INFLIBNET is involved in modernizing university libraries in India using the state-of-art technologies for the optimum utilization of information.(<https://inflibnet.ac.in>)

Established in 1991 at Gandhinagar, Gujrat

### **OBJECTIVE AND FUNCTIONS of INFLIBNET**

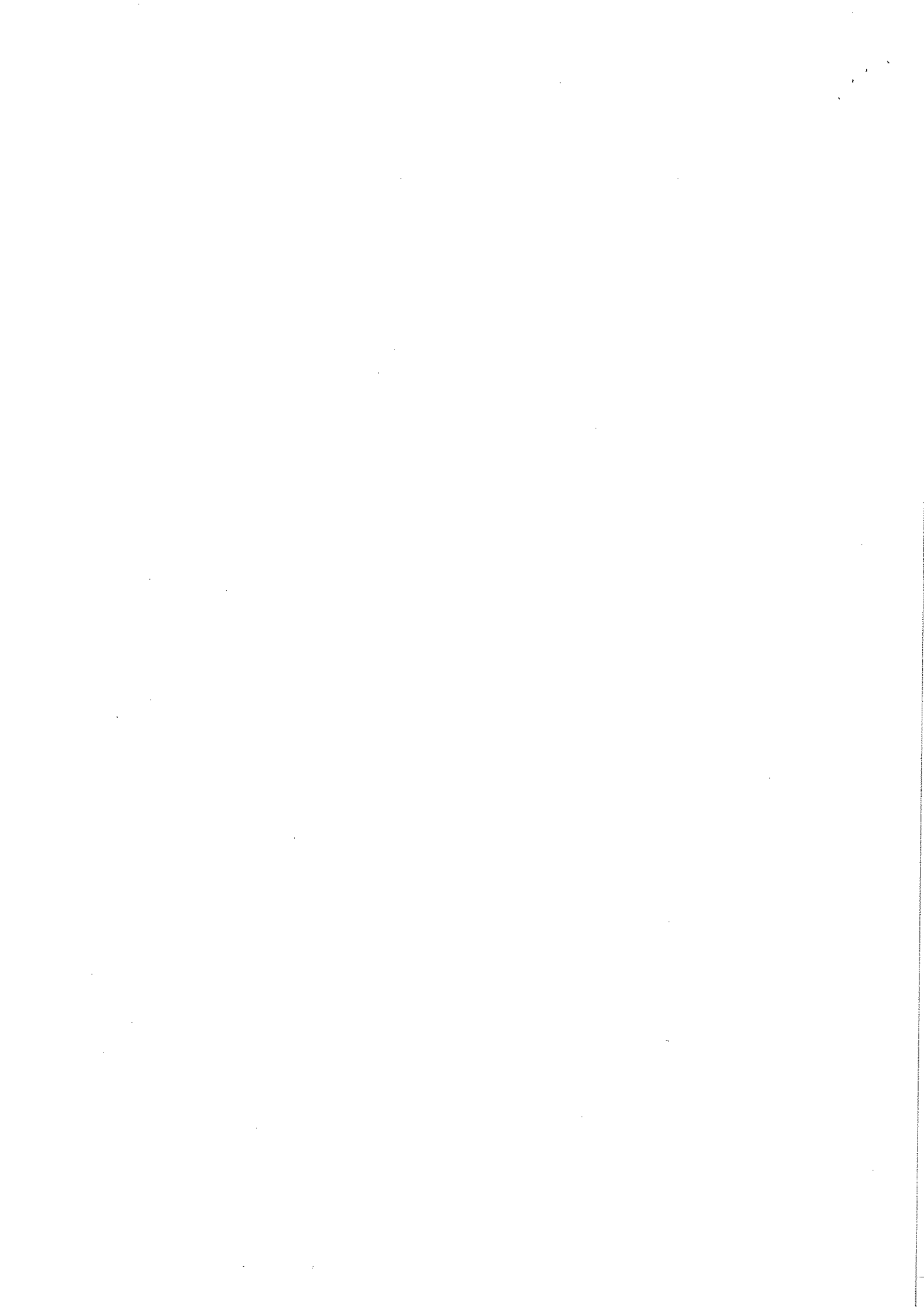
- To promote and establish communication facilities to improve capability in information transfer and access, that provide support to scholarship, learning, research and academic pursuit through cooperation and involvement of agencies concerned.
- To establish INFLIBNET: Information and Library Network a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R & D institutions, etc. avoiding duplication of efforts.
- To promote and implement computerization of operations and services in the libraries and information centres of the country, following a uniform standard.
- to evolve standards and uniform guidelines in techniques, methods, procedures, computer hardware and software, services and promote their adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchange of information towards optimal use of resources and facilities.
- to evolve a national network interconnecting various libraries and information centres in the country and to improve capability in information handling and service.

### **17. Types of Information services.**

Types of Information Services: -

2.1.1 Reference Services - Reference services help the user define and identify his query correctly, bearing in mind how he intends to use the information, since this can affect the choice of source. The reference personnel then inform him what catalogues, directories, files, secondary publications or databases to consult to seek out the relevant information for himself, explaining, if necessary, how the user should go about his search (direct search).

2.1.2 Referral Services - Referral services are to be distinguished from reference service, discussed earlier. Referral services do not provide the user with the documents or information actually needed for his query but refer him to the sources such as secondary publications, information units,



professional organizations, research institutes and individual specialists, etc. and tell him where to find them.

2.1.3 Current Awareness Services - Current awareness services are designed to keep the user abreast of information in their area of work or interest that has recently been published and received or identified by the libraries or information units, particularly in specialized subject fields. To accomplish this purpose, information products at various intervals of time are issued.

2.1.4 Literature Search Services - Literature search service is considered as an extension of reference service. An important aspect of literature search service is ascertaining the purpose of search. In assessing this aspect one has to understand the scope, depth and precise field of inquiry. This may necessitate a dialogue between the user and the information specialist, a quick assessment of the nature and extent of enquiry will indicate whether the search to be carried out is for a specific information or for a few select references or for a comprehensive bibliographic information which is usually the requirement of a research worker.

2.1.5 Document Delivery Services - Information searches conducted by library or information specialists from databases usually are from bibliographic much less on full-text databases. Since the bibliographic databases provide only bibliographic references and abstracts, the users often request for copies of full-texts of certain references that are of interest to them. Supplying the full texts against such requests is called document delivery service. The full texts can be sent to the users as photocopies, microforms or through electronic transfer through online networks. While the photocopies and microforms are sent by post, electronic transfer can be made by fax, electronic mail, or Internet or any other available network. Normally, the copies are not supplied by fax or electronic mail, etc., due to various reasons

### **18. Copy Right –**

The Indian Copyright Act, 1957 governs the system of copyrights in India. [Amended in 1982, 1984, 1992, 1994 & 1999].

It is a right which Grants protection to the unique expression of Ideas. The term original in the copyright law means that the work originated with the author.

\*There is no requirement for novelty or uniqueness as there is in patent law.

\* Copyright law protects the expression of an idea. Not the idea itself.

\*It is a negative right meaning thereby that it is prohibitory in nature. It is a right to prevent others from copying or reproducing the work.



- The object of copyright is to encourage authors, composers and artists to create original works by rewarding them the exclusive right for a specific period to reproduce the works for publishing and selling them to the public. The moral basis of copyright law rests in the eighth commandment “Thou shall not steal”.
- Copyright is not a single right. It is a bundle of rights in the same work. For e.g. in the case of a literary work, copyright consists of reproduction in print media, the right of dramatic and cinematographic versions, the right of translation, adaptation, abridgement and the right of public performance.
- Copyright consists not merely of the right of reproduction. It also consists of right to works derived from the original work, rights like the right of public performance, the recording right and the broadcasting right. Such related rights are called “neighbouring rights”

#### **TERM (Period) OF COPYRIGHT**

- In the case of any literary, dramatic, musical or an artistic work (other than a photograph), life time of the author + 60 years.
- In the case of photograph, cine films, sound recording and Govt. Work, 60 years from the beginning of the calendar year next following the year in which the work is first published.
- In the case of broadcasters/performers, reproduction right shall subsist until 25 years from the calendar year next following the year in which the broadcast/performance is mad

