

QUES 1: ERROR CORRECTION

```
Data : 1 0 1 1
Data with parity bits: 0 1 1 0 0 1 1
Code word with error: 0 1 0 0 0 1 1
Error bit: 3
Corrected code word: 0 1 1 0 0 1 1
```

QUES 2: ERROR DETECTION

```
Sender :
Data : 1 0 1 1

Reciver :
Data with error: 1 0 0 1
Error detected
```

QUES 3: CEASER CIPHER

```
Enter the message
pay more money
Enter the choice:
1 Encrypt the message
2 Decrypt the message
1
Encrypted Messsage is :- SDB PRUH PRQHB
-----
Process exited after 13.47 seconds with return value 1
Press any key to continue . . .
```

```
7 Enter the message
8 SDB PRUH PRQHB
9 Enter the choice:
0 1 Encrypt the message
1 2 Decrypt the message
2 2
3 Decrypted Messsage is :- pay more money
4 -----
5
6 Process exited after 7.128 seconds with return value 1
7 Press any key to continue . . .
```

QUES 4: MONOALPHABETIC CIPHER

```
Enter the message
pay more money
Enter the choice:
1 Encrypt the message
2 Decrypt the message
1
Enter displacement to be used for encryption
8
Encrypted Messsage is :- XIG UWZM UWVMG
-----
Process exited after 39.11 seconds with return value 1
Press any key to continue . . .
```

```
Enter the message
XIG UWZM UWVMG
Enter the choice:
1 Encrypt the message
2 Decrypt the message
2
Enter displacement used in encryption
8
Decrypted Messsage is :- pay more money
-----
Process exited after 7.749 seconds with return value 1
Press any key to continue . . .
```

QUES 4: POLYALPHABETIC CIPHER

C:\Users\User\Desktop\IS practicals\4Polyalphabetic.exe

```
Enter the Message
pay more money
Enter the key
8
Enter 1 to encrypt message
Enter 2 to decrypt message
1
Message = pay more money
Encrypted Text = A20?>@)6?>@?60
-----
Process exited after 10.32 seconds with return value 1
Press any key to continue . . .
```

```
C:\Users\User\Desktop\IS practicals\4Polyalphabetic.exe
Enter the Message
A20?>@)6?>@?60
Enter the key
8
Enter 1 to encrypt message
Enter 2 to decrypt message
2
Message = A20?>@)6?>@?60
Decrypted Text = paynmorenmoney
-----
Process exited after 8.213 seconds with return value 1
Press any key to continue . . .
```

QUES 5: PLAYFAIR CIPHER

```
P      L      A      Y      F
I      R      B      C      D
E      G      H      K      M
N      O      Q      S      T
U      V      W      X      Z
Enter 1 to encrypt a message
Enter 2 to decrypt a cipher text
1
Enter the message to be encrypted
meet me there
Encrypted Message with I:- EGMNEGQMGIKU
Encrypted Message with J:- EGMNEGQMGJKU
```

```
Enter Keyword
playfair
P      L      A      Y      F
I      R      B      C      D
E      G      H      K      M
N      O      Q      S      T
U      V      W      X      Z
Enter 1 to encrypt a message
Enter 2 to decrypt a cipher text
2
Enter the Cipher text to be decrypted
EGMNEGQMGIKU
Decrypted Message with I:- meetmetherex
Decrypted Message with J:- meetmetherex
```

QUES 6: HILL CIPHER

```

j+ Enter 1 to encrypt a message
Enter 2 to decrypt a cipher text
mer 1
Enter the key for encryption
Enter element 0,0
17
Enter element 0,1
a[ 17
Enter element 0,2
5
J[ 2 Enter element 1,0
21
Enter element 1,1
18
Enter element 1,2
21
Enter element 2,0
2
Enter element 2,1
2
b[ Enter element 2,2
19
(a[ Enter the message to be encrypted
pay more money
s Cipher Text :- RRLMBKASPDH

```

```

Enter 1 to encrypt a message
Enter 2 to decrypt a cipher text
2
Enter the key for decryption
Enter element 0,0
17
Enter element 0,1
17
Enter element 0,2
5
Enter element 1,0
21
Enter element 1,1
18
Enter element 1,2
21
Enter element 2,0
2
Enter element 2,1
2
Enter element 2,2
19
Enter the Cipher text to be decrypted
RRLMBKASPDH
Plain Text :- paymoremoney
-----
Process exited after 68.62 seconds with return value 1
Press any key to continue . . .

```


QUES 7: RAIL FENCE CIPHER

```

Enter the choice
1) Encrypt
2) Decrypt
3) Exit
1
Enter the Message
pay more money
Enter the key size
4
p _ _ _ r _ _ _ e _ _ _
 _ a _ _ o _ e _ _ n _ y _ _
 _ y _ m _ _ _ o _ _ _ E _ _
 _ _ _ _ _ m _ _ _ _ _ E _ _
Encrypted Text = PREAOENYYM OE ME
Do you want to continue? (Y/N)
y
Enter the choice
1) Encrypt
2) Decrypt
3) Exit
2
Enter the Message
PREAOENYYM OE ME
Enter the key size
4
P _ _ _ R _ _ _ E _ _ _
 _ A _ _ O _ E _ _ N _ Y _ _
 _ Y _ M _ _ _ O _ _ _ E _ _
 _ _ _ _ _ M _ _ _ _ _ E _ _
Decrypted Text = pay more money

```

QUES 8: ROW TRANSPOSITION CIPHER

9  C:\Users\User\Desktop\IS practicals\8RowTransp

```
Enter the choice
1) Encrypt
2) Decrypt
1
Enter the Message
pay more money
Enter the key
32145

Key= 32145
  0 yapmo
  1 meron
  2 xyeyz
Encrypted Text = yapmomeronxyeyz
Do you want to continue? (Y/N)
y

Enter the choice
1) Encrypt
2) Decrypt
2
Enter the Message
yapmomeronxyeyz
Enter the key
32145
Decrypted Text = paymoremoneyxyz
Do you want to continue? (Y/N)
```

QUES 9: PRODUCT CIPHER

```
Enter the choice
1) Encrypt
2) Decrypt
1
Enter the Message
pay more money
Enter the key
32145
Enter the number of transpositions
3

Key= 32145
  0 paymo
  1 remon
  2 eyxyz

Key= 32145
  0 ymxae
  1 yprem
  2 oyonz

Key= 32145
  0 xromp
  1 yyyoa
  2 enemz
Encrypted Text = oyerynxyemompaz
Do you want to continue? (Y/N)
y

Enter the choice
1) Encrypt
2) Decrypt
2
Enter the Message
oyerynxyemompaz
Enter the key
32145
Enter the number of transpositions
3
Decrypted Text = paymoremoneyxyz
Do you want to continue? (Y/N)
```

QUES 11: STREAM CIPHER

```
t Enter the choice
1) Encrypt
er 2) Decrypt
ge 1
m Enter the message in Binary
10011001
PT = 10011001
Key= 11100000
Encrypted Text = 01111001
Do you want to continue? (Y/N)
y

Enter the choice
1) Encrypt
2) Decrypt
2
Enter the message in Binary
01111001
CT = 01111001
Key= 11100000
Decrypted Text = 10011001
Do you want to continue? (Y/N)
_
```