# Correlation coefficients when k= 2 For topic 1 1.0000 -0.0308 -0.0308 1.0000 For topic 2 1.0000 0.0295 0.0295 1.0000 Correlation coefficients when k= 3 For topic 1 1.0000 -0.0405 -0.0405 1.0000 For topic 2 1.0000 -0.0035 -0.0035 1.0000 For topic 3 1.0000 0.0231 0.0231 1.0000 Correlation coefficients when k= 4 For topic 1 1.0000 -0.0353 -0.0353 1.0000 For topic 2

1.0000 0.0093

0.0093 1.0000

```
For topic 3
  1.0000 -0.0391
 -0.0391 1.0000
For topic 4
  1.0000 0.0356
  0.0356 1.0000
Correlation coefficients when k= 5
For topic 1
  1.0000 0.0442
  0.0442 1.0000
For topic 2
  1.0000 0.0060
  0.0060 1.0000
For topic 3
  1.0000 0.0076
  0.0076 1.0000
For topic 4
  1.0000 -0.0132
 -0.0132 1.0000
For topic 5
```

0.0307 1.0000

1.0000 0.0307

Correlation coefficients when k= 6

For topic 1

```
1.0000 0.0032
```

0.0032 1.0000

## For topic 2

1.0000 -0.0037

-0.0037 1.0000

## For topic 3

1.0000 -0.0433

-0.0433 1.0000

## For topic 4

1.0000 0.0037

0.0037 1.0000

#### For topic 5

1.0000 0.0114

0.0114 1.0000

#### For topic 6

1.0000 0.0325

0.0325 1.0000

#### Correlation coefficients when k= 7

#### For topic 1

1.0000 0.0143

0.0143 1.0000

## For topic 2

1.0000 -0.0157

-0.0157 1.0000

1.0000 0.0283

0.0283 1.0000

## For topic 4

1.0000 -0.0134

-0.0134 1.0000

## For topic 5

1.0000 0.0176

0.0176 1.0000

## For topic 6

1.0000 -0.0363

-0.0363 1.0000

#### For topic 7

1.0000 0.0252

0.0252 1.0000

#### Correlation coefficients when k= 8

#### For topic 1

1.0000 -0.0529

-0.0529 1.0000

## For topic 2

1.0000 -0.0044

-0.0044 1.0000

## For topic 3

```
1.0000 -0.0687
```

-0.0687 1.0000

## For topic 4

1.0000 0.0370

0.0370 1.0000

## For topic 5

1.0000 -0.0059

-0.0059 1.0000

## For topic 6

1.0000 -0.0153

-0.0153 1.0000

#### For topic 7

1.0000 -0.0043

-0.0043 1.0000

#### For topic 8

1.0000 0.0278

0.0278 1.0000

#### Correlation coefficients when k= 9

#### For topic 1

1.0000 0.0080

0.0080 1.0000

## For topic 2

1.0000 -0.0207

-0.0207 1.0000

1.0000 -0.0551

-0.0551 1.0000

## For topic 4

1.0000 -0.0172

-0.0172 1.0000

## For topic 5

1.0000 0.0129

0.0129 1.0000

## For topic 6

1.0000 0.0156

0.0156 1.0000

#### For topic 7

1.0000 0.0180

0.0180 1.0000

#### For topic 8

1.0000 -0.0221

-0.0221 1.0000

## For topic 9

1.0000 0.0310

0.0310 1.0000

Correlation coefficients when k= 10

1.0000 -0.0181

-0.0181 1.0000

#### For topic 2

1.0000 0.0154

0.0154 1.0000

## For topic 3

1.0000 -0.0322

-0.0322 1.0000

#### For topic 4

1.0000 -0.0226

-0.0226 1.0000

## For topic 5

1.0000 -0.0415

-0.0415 1.0000

#### For topic 6

1.0000 -0.0453

-0.0453 1.0000

## For topic 7

1.0000 -0.0413

-0.0413 1.0000

## For topic 8

1.0000 -0.0152

-0.0152 1.0000

1.0000 -0.0315

-0.0315 1.0000

## For topic 10

1.0000 -0.0186

-0.0186 1.0000