

**UNIVERSITY OF KERALA**  
**SCHOOL OF DISTANCE EDUCATION**  
**B.Sc MATHEMATICS (SEMESTER – I)**

---

**TOPICS FOR ASSIGNMENT AND CASE ANALYSIS:  
ENGLISH COURSES FOR BA/BSc STUDENTS**

**SEMESTER - 1**

**Language Course 1**  
**LISTENING, SPEAKING AND READING**  
**Common for B.A/BSc [EN 1111.1] & B.Com [EN 1111.2]**

**ASSIGNMENT (eight to ten pages)**

1. Write an essay on the Vowels and Diphthongs of English.  
or
2. Attempt a critical analysis of the one-act play “The Dear Departed”, with details of all the characters.

(10 marks)

**CASE ANALYSIS (five pages)**

1. What are the main problems faced by the people in your neighbourhood while trying to use English for communication

or

2. Discuss with your friends and write on the ways in which English speaking skills can be improved.

(10 marks)

അഡീഷണൽ ലാംഗ്വേജ്- മലയാളം

അസൈൻമെന്റ്

പ്രാചീന കവിത്രയം.

അല്ലെങ്കിൽ

നാടൻ പാട്ടിന്റെ സവിശേഷതകൾ.

പ്രശ്നാപഗ്രഥനം (Case Analysis)

മലയാള കവിതയും ആധുനികതയും.

അല്ലെങ്കിൽ

വൈലോപ്പിള്ളി കവിത- സവിശേഷതകൾ.

## TOPICS FOR ASSIGNMENT AND CASE ANALYSIS

### BA/B Sc Additional Language HINDI First Semester HN 1111.1 Course I – Prose and One Act Plays

#### ASSIGNMENT TOPICS

किन्हीं चार पर आलोचना कीजिए : (10 marks)

1. मन्त्र –प्रेमचंद
2. शिष्टाचार-भीष्म साहनी
3. चोरी और प्रायश्चित्त-महात्मा गांधी
4. जीवन निर्माता अध्यापक- जगदीश चन्द्र माथुर
5. मैं नरक से बोल रहा हूँ- हरिशंकर परसाई

#### Case Analysis

किन्हीं चार पर आलोचना कीजिए | (10 marks)

1. अंडे के छिलके –मोहन राकेश
2. महाभारत का एक संच –भारत भूषण अग्रवाल
3. बहू की विदा –विनोद रस्तोगी
4. हिन्दी एकांकी का उद्भव और विकास
5. एकांकी और नाटक का अंतर

**Foundation Course 1**  
**PERSPECTIVES ON CONTEMPORARY ISSUES: EN 1121**  
**Common for all BA/BSc Programmes**

**ASSIGNMENT (eight to ten pages)**

1. How does an innocent woman become the Goddess of Revenge?  
or
2. The ways in which we can combat addiction among adolescents.

(10 marks)

**CASE ANALYSIS (five pages)**

What are the main problems faced by women in the lower-income groups of people in your neighbourhood. Suggest possible solutions.

(10 marks)

**Core –I- Methods of Mathematics ( MM 1141)**

-----

1. In  $Z$  define  $a \sim b$  if (1)  $ab > 0$  (2)  $a + b$  is divisible by 3. Check whether ' $\sim$ ' is an equivalence relation in both cases.
2. For all  $n \geq 1$  find the sum of  $1^4 + 2^4 + 3^4 + \dots + n^4$  by using induction.
3. Find the g.c.d of 17017 and 18900.
4. Find the least non negative residue of  $m^{10} \pmod{1}$  for each number  $m, 1 \leq m \leq 10$ .
5. Solve  $12x \equiv 5 \pmod{47}$
6. Find the natural domain of the function

$$(a) f(x) = \sqrt{\frac{x^2 - 4}{x - 4}} \qquad (b) f(x) = \frac{3}{2 - \cos x}$$

7. Sketch the graph of  $y = |x - 3| + 2$ .
8. Use the graph of  $y = x^{1/3}$  to sketch the graph of  $y = |x|^{1/3}$ .
9. Find the parametric equations for the portion of the parabola  $x = y^2$  joining  $(1, -1)$  and  $(1, 1)$  oriented down to up.
10. Let  $f(x) = \begin{cases} x-1 & \text{if } x \leq 3 \\ 3x-7 & \text{if } x > 3 \end{cases}$

Find (a)  $\lim_{x \rightarrow 3^-} f(x)$       (b)  $\lim_{x \rightarrow 3^+} f(x)$       (c)  $\lim_{x \rightarrow 3} f(x)$

11. Show that the function defined by  $f(x) = \sin(x^2)$  is a continuous function

$$12. \text{ Let } f(x) = \begin{cases} x^2 \sin \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

- a. Show that  $f$  is continuous at  $x = 0$
- b. Find  $f'(0)$
- c. Show that  $f'$  is not continuous at  $x = 0$

13. Find all rational values of  $r$  such that  $y = x^r$  satisfies the equation  $3x^2 y'' + 4xy' = zy = 0$

$$14. \text{ Sketch the ellipse } a(x-1)^2 + 16(y-3)^2 = 144$$

15. Rotate the co-ordinate axes to remove the  $xy$ - term and name the conic  $6x^2 + 24xy - y^2 - 12x + 24y + 11 = 0$

## **CO 1131 – Complementary I- Foundations of Financial Accounting**

### **Assignment Questions 2019 –S1**

- 1) Briefly describe the principles of Accounting
- 2) Mr.Varma commenced business on 1<sup>st</sup> July2015 with Rs 15,000.His transaction for the month 2015July 1

1)July 1	Purchased goods	5600
2)July 4	Sold to Gopal	3100
10	Bought goods from Arjun	2400
12	Sold to Rajan goods for cash	2500
15	Rashid purchased goods from us	2400
20	Received cash from Gopal	1600
21	Received cash fromRashid	1000
25	Paid to Arjun on account	1500
27	Received cash from Rashid	1400
27	Cash Received on commission	50
28	Paid Salaries to the staff	2500
30	Paid rent of the factory	2000
30	Withdrew cash for personal use	1500
31	Paid to postage	50

Journalise the above transactions and prepare the ledger accounts

# ST 1131.1

## Complementary II- Statistics and Introduction to Probability

### Assignment Questions

- 1) Distinguish between census and sampling
- 2) Construct a histogram for the following Data

Class limits	Frequency
90-100	16
100-110	22
110-120	45
120-130	60
130-140	50
140-150	24
150-160	10

Calculate the number of cases (i) Between 112 & 134 (ii) number less than 112 (iii) number greater than 134.

Also find out the proportion of cases which lie between 112 and 134

- 3) find mean median and mode for the following Data

Height in inches	Number of persons
60-61	2
61-62	4
62-63	14
63-64	41
64-65	83
65-66	169
66-67	394
67-68	400
68-69	392
69-70	201

The S.D calculated from a set of observations is 5.if the sum of the observations is 80,what is the sum of squares of these observations

4) Find Q.D and coefficient of skewness for the following data

Size	Frequency
4-8	6
8-12	10
12-16	18
16-20	30
20-24	15
24-28	12
28-32	10
32-36	6
36-40	2

5) A coin is tossed thrice .What is the chance of getting all heads

6) What is the probability of drawing 3 aces from a deck of cards

Is it greater than or less than the prob .of drawing(i ) the 8 hearts

(ii) the 3 of diamonds (ii) the 2 of spades from a deck