SCHOOL OF DISTANCE EDUCATION

UNIVERSITY OF KERALA

B.Sc MATHEMATICS

IV SEMESTER

TOPICS FOR ASSIGNMENT AND CASE ANALYSIS

Language Course 8: READINGS IN LITERATURE

(BA/B Sc English V) EN1411.1

ASSIGNMENT TOPICS

Attempt these topics each in 3-4 pages

1) Contribution of Wordsworth and Keats to English poetry.
2) Views of Nehru and Mandela on freedom

(10 marks)

Case Analysis

Write an essay on different literary forms and their features with suitable examples in about 8 pages.

(10 marks)

ബി.എ/ബി.എസ്.സി (നാലാം സെമസ്റ്റർ)

അഡീഷണൽ ലാംഗ്വേജ് (മലയാളം)

വിനിമയം, സർഗ്ഗാത്മകരചന

അസൈൻമെന്റ്

മലയാളം ഭരണഭാഷയാക്കുമ്പോൾ – സാദ്ധ്യതകളും പരിമിതികളും?

നന്ദിനി അല്ലെങ്കിൽ

വേർഡ്സ്വർത്തിന്റെ കാവ്യസിദ്ധാന്തങ്ങൾ – വിശദമാക്കുക?

പ്രശ്നാപഗ്രഥനം (Case Analysis)

കാവ്യ പ്രചോദനത്തെപ്പറ്റിയുളള ഭാരതീയ സങ്കല്പങ്ങൾ വിശദമാക്കുക?

നന്ദിനി അല്ലെങ്കിൽ

മാധ്യമങ്ങൾക്ക് സമൂഹത്തിലുളള സ്വാധീനം വിലയിരുത്തുക?

BA/B Sc Additional Language HINDI –IV Semester

HN 1411.1 Language Course -Common (Addl. Language IV) – Poetry, Long Poems and Culture

ASSIGNMENT TOPICS

किन्हीं चार पर आलोचना कीजिए :   (10 marks)

1. नदी के द्वीप- अज्ञेय

2. देशगान-सर्वेश्वर दयाल सक्सेना

3. प्रौढ़ शिक्षा- धूमिल

4. मर जायेंगी- राजेश जोशी

5. प्रलय की छाया

Case Analysis

किन्हीं चार पर आलोचना कीजिए | (10 marks)

1. कबीरदास के दोहे

2. सूरदास के पद

3. रीतिकालीन काव्य और बिहारी

4. केरल की सांस्कृतिक विशेषताएं

5. भारतीय संस्कृति के प्रमुख तत्व

B.Sc.Mathematics

Semester IV

Algebra and Calculus II MM 1441

1) Without using division of polynomials, find the remainder when

i) $x^3 - 2x + 4$ is divided by $(x - 2)$

ii) $x^4 - 7x^2 + 3$ is divided by $(x + 1)$

iii) $x^{40} - 8x^{12} + 3$ is divided by $(x^4 - 1)$

2) Find all roots of $f(x) = x^2 - 2x$ in $R[x]$ when

i) $R = Z/15Z$

ii) $R = Z/30Z$

3) Using Euclids Algorithm find the g.c.d of $x^2 - x + 4$ and
$$x^3 + 2x^2 + 3x + 2 \text{ in } F_3[x]$$

ii) $3x^3 + 4x^2 + 3$ and $3x^3 + 4x^2 + 3x + 4$

in $F_5[x]$

4) Write x^3 in base $x + 1$

Write $(x^2 + 3x + 1)^4$ in base i) $x + 2$; ii $x^2 + x + 1$

6) Decompose into partial fractions

i) $\dfrac{(t+1)}{(t-1)(t+2)}$

ii_ i) $\dfrac{1}{(t\mp 1)(t^2+2)}$

i) $\dfrac{(t^2+1)}{(t-1)((t+1)^2)(t+2)}$

7)   Find a solution of

i) $x^3 + 3x = 5$

ii) $x^3 + 6x + 8 = 6x^2$

8) Let $f(x) = x^4 + x^2 + x + 1$ in $F_2[x]$. Show that $f(x)$ has no multiple factor

9) Find the volume of the cardioid

$r = a(1 - cos\theta)$ about its axis

10) Evaluate the following triple integrals

i) $\int_{0}^{1} \int_{0}^{2} \int_{1}^{2} x^2 yz \, dx$

ii) $\int_{0}^{1} \int_{y2}^{1} \int_{1}^{1-x} xdzdxdy$

iii) $\int_{0}^{\pi} \int_{0}^{2\pi} \int_{1}^{1} x^2 siny \, dxdydz$

Complementary IV E- Commerce CO -1431.1

1. Explain the importance and challenges of E-Commerce
2. Differentiate between E-commerce and E-business
3. What are the different models of E-Commerce?
4. Explain the Intranet and Extranet with its advantages and limitations.
5. Describe different internet protocol
6. Write a short note on Internet and its uses on business.
7. Describe the E- marketing strategies.
8. Explain about the different networks.
9. Explain different modes of E- payment systems.
10. Discuss on the Information security environment in India.

Course IV-ST 1431.1:

Testing of Hypothesis and Analysis of Variance

1.   A die is thrown 9,000 times and a throw of 3 or 4 observed 3,240 times. Show that the dice cannot be regarded as an unbiased one and find the limits between which the probability of a throw of 3 or 4 lies.

2.   Twenty people were attacked by a disease and only 18 were survived. Will you reject the hypothesis that the survival rate, if attacked by this disease, is 85% in favour of the hypothesis that is more at 5% level?

3.   A sample of 400 observations has mean 95 and S.D 12. Could it be a random sample from a population with mean 98?

4.   Fit a Poisson distribution to the following data and test the goodness of fit.

X	0	1	2	3	4	5	6

| Y | 275 | 72 | 30 | 7 | 5 | 2 | 1 |

5. The following table shows three age groups of boys and girls.

a. The number of children affected by a non-infections disease and

b. The total number of children exposed to risk.

	Boys			Girls		
	I	II	III	I	II	III
a	60	25	48	96	18	42
b	240	470	530	530	200	210

i. Test whether there are differences between the incidence rates in the three age group of boys.

ii. Test whether the boys and girls are equally susceptible or not.

6. The varieties of A, B, C wheat were sown in 4 plots each and the following yields in quintals per acre were obtained.

A	8	4	6	7
B	7	5	5	3
C	2	5	4	4

Perform an analysis of variance on these data and discuss whether there is any significant difference between yields

Management Accounting   CO-1431.2

Assignment Questions

1. Explain the uses of accounting information.
2. Calculate the trend percentages from the following figures of the company taking 2010 as base year.

Year	2010	2011	2012	2013	2014	2015
Sales (Rs. In lakhs)	30	40	48	56	70	80
Profit (Rs. In lakhs)	5	8	10	15	20	24

3. Explain briefly the tools of Financial Statement Analysis?
4. Calculate a) Current ratio and b) Liquid ratio from the following:

| Cash | | 10000 | Bills receivable | | 5000 |

Cash at Bank	5000	Stock	9000
Debtors	20000	Prepaid expenses	3000
Creditors	16000	Outstanding expenses	2000
Bills Payable	4000		

5. Calculate debtors' turnover ratio and average debt collection period.
   Credit sales Rs. 3, 60,000; Debtors Rs. 10,000; Bills receivable Rs. 2,000

6. From the following Balance Sheet of Nagarjuna Ltd. As on 31st March 2017

Balance Sheet
As on 31st March 2017

Liabilities	Rs.	Assets	Rs.
Current Liabilities:		Current assets:	
Creditors	6000	Cash	5000
Bills Payable	10000	10% Investments	15000
Outstanding	1000	Sundry debtors	20000
expenses	13000	Closing stock	30000
Provision for tax	30000		70000
		Fixed assets:	
	70000	Machinery 100000	
6% debentures	10000	Less: Depreciation	
7% preference	50000	50000	50000
shares			80000
Equity share	40000	Land & buildings	
capital	200000		200000
(50000 shares @			
Rs. 10)			
Reserves &			
Surplus			

Other information:
i)   Net Sales   300000
ii) Cost of goods sold   258000
iii) Net Income before tax   20000
iv) Net income after interest and tax   10000
v)   Market price of equity share (per share)   20

Calculate:

a) Current ratio
b) Acid test ratio
c) Debt equity ratio
d) Proprietary ratio
e) Fixed asset to net worth ratio
f) Gross profit ratio
g) Operating ratio
h) Net profit ratio
i) Return on total assets
j) Stock turnover ratio
k) EPS
l) Return on shareholders fund
m) Price earnings ratio

7. What is the significance of 'Return on capital employed"?
8. From the following two Balance Sheets on 31st March 2018 and 2019 of Ram raj ltd. Prepare:
   i)   Schedule of changes in working capital
   ii)   Funds flow statement

Balance Sheet

Liabilities	2018	2019	Assets	2018	2019
Share capital	325000	300000	Land & buildings	510000	450000
Profit &loss account	170000	100000	Plant & machinery	90000	100000
Debentures	150000	200000	Stock	110000	80000
Trade creditors	98000	75000	Debtors	30000	46000
Outstanding creditors	2000	5000	Cash	5000	4000
	745000	680000		745000	680000

9. Discuss the managerial uses of funds flow statement.
10. Differentiate between funds from operation and cash from operation.