B.Sc. Mathematics First Semester 2023 admission

Assignment Questions

Descriptive Statistics and Introduction to Probability

1. Calculate the median of the distribution of marks obtained by 80 students given below.

Marks	0 -10	10- 20	20-30	30-40	40-50	50-60
Frequency	3	9	15	30	18	5

2. Calculate the geometric mean of the following observations:

   2574, 475, 75, 5, 0.8, 0.08, 0.005, 0.009.

3. Find the standard deviation of the following observations by the direct method and the shortcut method.

   20, 25, 35, 40, 15, 10

4. The first four moments of a distribution about the value "5" of a variable are 2, 20, 40, 50. Obtain the mean, second, third and fourth central moments.

5. For a group of 10 items x=452, x2=242 and mode=43.

   Find the Pearson co-efficient of skewness.

6. Find the missing value x , for the following data , if the mean of the data is 10.20

observations	5	8	x	12	13	15
frequency	7	13	22	10	7	4

7. Height and weight of 10 students of a college is given below. Use Karl Pearson's coefficient of correlation to check whether height and weight are correlated

Height	140	130	152	148	150	160	162	140	150	148
weight	40	38	45	42	42	55	50	46	48	45

FUNDAMENTALS OF FINANCIAL ACCOUNTING

QUESTIONS

1. Journalise the following transactions

   2021 march 1: Admin started business with Rs.10,000

   ,, 2: Purchase furniture for cash Rs.2,000

   ,, 3: Purchased good for cash Rs. 4,500

   ,, 4: Purchase goods from John on credit Rs. 6,000

   ,, 5: Sold goods for cash Rs.5,000

   ,, 6: Sold goods to Jose on credit Rs.6,000

,, 9 : Paid for stationery Rs. 200

,, 11: Paid for advertisement Rs.3,000

,, 15: Sold goods Rs.2,400

,, 21: Purchase goods Rs.1,100

,, 28: Paid John Rs.3,000

,, 29: Received from Jose Rs.4,500

,, 30: Paid Rent Rs.300

,, 30: Paid salary Rs. 400

,, 31: Received commission Rs.200

,, 31: Withdrew for domestic use Rs.300

2. Explain accounting concepts and conventions.

3. Enter the following transactions in the Double column Cash Book of Tarun

2021		Rs.
March 1	Opening Balance	
	Cash in hand	300
	Cash at bank	3,200
2	Sold goods for Cash	4000
4	Purchased goods for cash	3,000
6	Deposited cash into bank	800
8	Withdrew cash from bank	1,400
12	Purchased stationery	300
15	Paid to Sanjay by cheque	4,600
18	Rent paid by cheque	900
21	Received cheque from Suraj	2,000
22	The cheque from Suraj paid into bank	2,000
25	Drew cash for domestic purpose	400
28	Salary paid by cheque	1200
31	Cash Sales	4,100
	Paid into bank	4000

4. What is Trial Balance? Explain the objectives and preparation of Trial balance.

Methods of Mathematics

Assignment Questions

1. If a and b are two natural numbers such that (a, b)=6, $[a, b] = 36$. What can a and b?
2. Solve $12x \equiv 5(mod 47)$.
3. Describe the domain and range of the function $y = x\sqrt{9 - x^2}$.
4. Let $f(x) = x^2 + 3, g(x) = \sqrt{x}$. Find 1) $(f \circ g)(x)$2)$(g \circ f)(x)$and state their domains.
5. Find the slope intercept form of the equation of the line with the conditions that the line is perpendicular to y=5x+9 and y- intercept=6.
6. Find all the points of discontinuity of the function f defined by $f(x) = \begin{cases} x + 2 & if\ x < 1 \\ 0 & if\ x = 1 \\ x - 2 & if\ x > 1 \end{cases}$
7. Let $f(x) = \begin{cases} x^2\ sin\frac{1}{x} & x \neq 0 \\ 0 & x = 0 \end{cases}$
   a) Show that f is continuous at $x = 0$
   b) Find $f'(0)$
   c) Find $f'(x)$, for $x \neq 0$
   d) Show that $f'$is not continuous at x=0
8. Use implicit differentiation to find $\frac{d^2y}{dx^2}$ if $4x^2 - 2y^2 = 9$
9. If $f(x) = x^2 - 5x + 6$. Then find
   a) The intervals on which f is increasing
   b) The interval on which f is decreasing
   c) The openintervals on which f is concave up
   d) The open intervls on which f is concave down
   e) The x co ordinate of all inflection points
10. Generate or sketch of graph $y = 6x^{\frac{1}{3}} + 3y^{\frac{4}{3}}$and analyse it

Additional Language – Malayalam for BA / BSc Degree Programmes

ASSIGNMENT & CASE ANALYSIS

SEMESTER 1

ML.1111.1
അഡീഷണൽ ലാംഗ്വേജ് I

ASSIGNMENT

- കുമാരനാശാൻ, ഉള്ളൂർ, വള്ളത്തോൾ എന്നിവരുടെ ഖണ്ഡകാവ്യങ്ങളെ പരിചയപ്പെടുത്തുക.

  അല്ലെങ്കിൽ

- മലയാള കവിതാസാഹിത്യചരിത്രം സംക്ഷേപിക്കുക.

CASE ANALYSIS

- പ്രാചീന കവിത്രയത്തിന്റെ സംഭാവനകൾ വിലയിരുത്തുക.

  അല്ലെങ്കിൽ

- സമകാലിക മലയാളകവിതയുടെ സവിശേഷതകൾ വിലയിരുത്തുക.

Additional Language HINDI

TOPICS FOR ASSIGNMENT AND CASE ANALYSIS

Maximum marks: 20

Assignment: 10, Case analysis :10

First Semester HN 1111.1 Course I – Prose and One Act Plays

ASSIGNMENT TOPICS

हिंदी गद्य के विभिन्न विधाओं का परिचय दीजिए |

या

कहानीकार प्रेमचंद का परिचय देकर मन्त्र कहानी की आलोचना कीजिए |

CASE ANALYSIS

एकांकी कला की दृष्टि से 'अंडे के छिलके 'एकांकी की समीक्षा कीजिए |

या

'बहु की विदा 'एकांकी का सारांश लिखकर उसकी विशेषताओं पर प्रकाश डालिए|

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First Degree Programme in English Language and Literature

SEMESTER – I (2023 Admission)

TOPICS FOR ASSIGNMENT AND CASE ANALYSIS

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

Assignment (8 to 10 pages)

Write an essay on the organs of speech and speech mechanism.

Or

Analyse the relevance of the title of the play *The Brink of Silence* (10 marks)

Case Analysis (5 pages)

Explain the Sub-skills of Reading. (10 marks)

Foundation Course 1 Perspectives on Contemporary Issues: EN 1121 Common for all BA/BSc Programmes

Assignment (8 to 10 pages)

Comment on the significance of the title "Goddess of Revenge".

Or

Discuss Gail Omvedt's perspective on violence against women in India (10 marks)

Case Analysis (5 pages)

Analyse the impacts of alcoholism in the contemporary society. (10 marks)