

INTERNAL ASSIGNMENT 2017 - 2018

Course: B.A Maths & Statistics

Paper: III

Title: Applied Statistics –I

Year: III

Stats

Section – A

UNIT – 1: Answer the following short questions (each question carries two marks) $5 * 2 = 10$

1. Explain the Principles of design of experiment
2. Explain assignable variation and Chance variation
3. Explain Producer risk and Consumer risk
4. Explain Artificial variable
5. Explain Job Sequencing

Section – B

UNIT – II: Answer the following questions (each question carries Five marks) $2 * 5 = 10$

1. Construct Control limits for Mean, Range and SD Chart.
2. Explain Assignment Algorithm.

Name of the faculty: Govardhan G

Department: Statistics

INTERNAL ASSIGNMENT 2017 - 2018

Course:-B.A(STATISTICS)

SA-28

Paper: IV Title: APPLIED STATISTICS-II Year- III.

Section -A

Unit-I:

Answer the following Short answer questions. [each question carries two marks] [5x2=20].

1. Lottery method.
2. Proportional allocation.
3. Define time series.
4. Laspeyre's and Paaschi's method.
5. Define demand and supply.

Section-B

Unit-II:

Answer the following questions.[each question carries five marks]. [2x5=10].

1. In SRSWOR the sample mean square [s^2] is an unbiased estimate of the population mean square [S^2].
2. Explain ratio to trend method to measure seasonal varieties with merits and demerits.

Name of the faculty: k. venkata ramana.

Department: Statistics.

INTERNAL ASSIGNMENT 2017 - 2018

Course : B.A (CDE) Mathematics

Paper : III Title : Rings and Linear Algebra ✓
Year: III / III

Section - A

UNIT - I : Answer the following short questions (each question carries two marks) 5x2=10

1. If R is a Boolean ring. Prove that (i) $a+a=0 \forall a \in R$
(ii) $a+b=0 \Rightarrow a=b$
2. Find the zeros of $x^5 + 3x^3 + x^2 + 2x \in \mathbb{Z}_5[x]$
3. Find the value of 'a' such that the rank of the matrix $\begin{bmatrix} 3 & 5 & a \\ 2 & 1 & -1 \\ 1 & 4 & 2 \end{bmatrix}$ is 2
4. Find the eigen values of $A = \begin{bmatrix} 2 & 4 \\ 1 & 5 \end{bmatrix}$
5. Prove that $\|x+y\| \leq \|x\| + \|y\|$.

Section - B

UNIT - II : Answer the following Questions (each question carries Five marks) 2x5=10

1. State and prove that fundamental theorem of homomorphism
2. Solve the system $\begin{cases} x+y+z=6 \\ 2x-3y+4z=8 \\ x-2y+2z=5 \end{cases}$ by using Cramer's Rule

Name of the Faculty : V. Venkatesh

Dept. of Mathematics

INTERNAL ASSIGNMENT 2017 - 2018

B.A MATHS III YEAR
NUMERICAL ANALYSIS

PAPER-IV
(PGRRCDE)

Marks : 20

PART-A

5 x 2 = 10

Answer all questions

1. Find a root of $x^2 + x - 1 = 0$ using Regula Falsi method correct to up to one decimal place.
2. Explain Lagrange's interpolating polynomial.
3. Explain Gauss-Seidel iteration method.
4. Explain Bisection method.
5. Define Runge-Kutta fourth order method

PART-B

2 X 5 = 20

Answer all questions

7. Explain Newton-Raphson method and use it to find a real root of equation $x^3 - 3x + 1 = 0$.
8. Find the polynomial $f(x)$, for the following data

x:	1	2	3	4	5	6
y:	1	8	27	64	125	216

by using Newton's forward Interpolation method.

Find The Laplace transform

5x2 = 10

1) $L\{\cos at\}$

2) $L^{-1}\left[\frac{1}{2s-3} + \frac{1}{4s} - \frac{s}{s-9}\right]$

3) solve $\frac{d^2x}{dt^2} - 3\frac{dx}{dt} + 2x = 1 - e^{-2t}$ $x(0) = 1, x'(0) = 0.$

4) Find The real numbers A and B if

$$A + iB = \frac{1}{(1-2i)(2+3i)}$$

5) Expand The function $f(x) = x \sin x$ as a Fourier series in $(0, 2\pi)$ Long Questions.

2x5 = 10

(1) Evaluate $\int_0^{\infty} \frac{dx}{(a^2 + x^2)^2}$ using parseval's identity

(2) Using method of separation of variable solve $3\frac{\partial u}{\partial x} + 2\frac{\partial u}{\partial y} = 0, u(x,0) = 4$

INTERNAL ASSIGNMENT

SUB: Applied Mathematics

Paper IV : Differential Geometry

Section – A

UNIT – I : Answer the following questions (each question carries two marks)

5x2=10

1. Define Osculating plane
2. Define Evolutes
3. Write First fundamental Form
4. Define Asumptotics
5. Define Torsion

Section – B

UNIT – II :-Answer the following Questions (each question carries five marks)

2x5=10

1. Write Serret Frenet Formula
2. State Euler's theorem and Rodrigues Formula

INTERNAL ASSIGNMENT

Sub: ECONOMICS

Paper – III : INDIAN ECONOMY

Section – A

UNIT – I : Answer the following questions (each question carries two marks)

5x2=10

1. PCI (per capital Income)
2. L.P.G.
3. Micro Finance
4. FDI (Foreign Direct Investment)
5. Demographic features

Section – B

UNIT – II : Answer the following Questions (each question carries five marks)

2x5=10

1. Discuss the objectives of Sustainable Development and what are the methods of measuring sustainable Development ?
2. Discuss the sources and importance of Institutional agricultural credit

INTERNAL ASSIGNMENT

Sub: ECONOMICS

Paper – IV : PUBLIC FINANCE & I.T.

Section – A

UNIT – I : Answer the following questions (each question carries two marks)

5x2=10

1. Public Finance
2. Public Revenue
3. Terms of Trade
4. Public goods
5. Balance of payments

Section – B

UNIT – II : Answer the following Questions (each question carries five marks)

2x5=10

1. Discuss critically the theory of comparative cost ?
2. Explain the concept of the balance of payment ?