

**INTERNAL ASSIGNMENT QUESTIONS  
B.A.(Maths & Stats) II YEAR**

**ANNUAL - 2024**



**PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION**  
(RECOGNISED BY THE DISTANCE EDUCATION BUREAU, UGC, NEW DELHI)

**OSMANIA UNIVERSITY**

(A University Accredited with A+ by the NAAC - A University with Potential for Excellence,  
Hyderabad – 7 Telangana State .

**DIRECTOR  
Prof. G.B. Reddy  
Hyderabad – 7, Telangana State**

PROF.G.RAM REDDY CENTRE FOR DISTANCE EDUCATION  
OSMANIA UNIVERSITY, HYDERABAD – 500 007

Dear Students,

Every student of B.A. (Maths & stats) II year has to write and submit **Assignment** for each paper compulsorily. **\*Statistics Assignment papers carries 20 marks and \*Maths & Applied Mathematics Assignment papers carries 30 marks.** The marks awarded to the students will be forwarded to the Examination Branch, OU for inclusion in the marks memo. If the student fail to submit Internal Assignments before the stipulated date, the internal marks will not be added in the final marks memo under any circumstances. The assignments will not be accepted after the stipulated date. **Candidates should submit assignments only in the academic year in which the examination fee is paid for the examination for the first time.** Candidates are required to submit the Exam fee receipt along with the assignment answers scripts at the concerned counter on or before **20-03-2024** and obtain proper submission receipt.

**ASSIGNMENT WITHOUT EXAMINATION FEE PAYMENT RECEIPT (ONLINE) WILL NOT BE ACCEPTED**

**Assignments on Printed / Photocopy / Typed will not be accepted and will not be valued at any cost. Only HAND WRITTEN ASSIGNMENTS will be accepted and valued.**

**Methodology for writing the Assignments (Instructions) :**

1. First read the subject matter in the course material that is supplied to you.
2. If possible read the subject matter in the books suggested for further reading.
3. You are welcome to use the PGRRCDE Library on all working days for collecting information on the topic of your assignments. (10.30 am to 5.00 pm).
4. Give a final reading to the answer you have written and see whether you can delete unimportant or repetitive words.
5. The cover page of the each theory assignments must have information as given in FORMAT below.

**FORMAT**

1. NAME OF THE STUDENT :
  2. ENROLLMENT NUMBER :
  3. NAME OF THE COURSE :
  4. NAME OF THE PAPER :
  5. DATE OF SUBMISSION :
6. Write the above said details clearly on every subject assignments paper, otherwise your paper will not be valued.
  7. Tag all the assignments paper wise and submit them in the concerned counter.
  8. Submit the assignments on or before **20-03-2024** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

*Ab*  
*15/2/2024*  
**DIRECTOR**

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : General English Title : General English Year II year

Section - A

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

1. How does the rumour spread from the photographer's shop?
2. How did the noseator end up withdrawing all his money?
3. Write about communication skills
4. Explain major theme of the poem "Telephone conversation"
5. Discuss the main issue that makes Arnold so melancholic in this "Dover Beach" poem.

Section - B

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

1. Explain the Adventure of the Blue Carbuncle.
2. Describe the secret life of Walter Mitty.

Name of the Faculty : Dr. K. Kiran

Dept. of English

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : తెలుగు Title : తెలుగు Year 24d

Section - A

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

- 1 నోబెల్ పురస్కారం గెలుపొందిన వారు.
- 2 బహుళ భాషా మాతృక.
- 3 గురజాడ ఆచార్యులు.
- 4 కుమారవంశం.
- 5 ఉపమానం.

Section - B

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

- 1 ఉపమానం కన్నా భక్తి అత్యంత చివరిది?
- 2 మన సంస్కారం గానం గానం గానం తెలుగు?

Name of the Faculty :

Dept. of Telugu.

Dr. D. Ram Babu.

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : Arabic Title : Second lag (Arabic) Year 2023 <sup>II year.</sup>

Section - A

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

1

١ متى يترجى من السوق ؟

2

٢ ما اسم الطالب الجديد ؟

3

٣ أين تذهب أبا بكي ؟

4

٤ أين تدرس يا أجي ؟

5

٥ كم طالباً في فصلكم ؟

Section - B

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

1 Define the following with Examples "كَمَانٌ وَأَوْحَاثٌ"

2. Write the Summary "تدوين القرآن الكريم"

Name of the Faculty : Dr. Md. Sohail Ahmed

Dept. Arabic

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : II (URDU) Title : MUTALA-E-ADAB PART - II Year II

Section – A

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

- 1 (1) مثنوی کے اجزاء پر نوٹ لکھئے۔
- 2 (2) شیخ ابراہیم ذوق کے بارے میں آپ کیا جانتے ہیں؟
- 3 (3) ”انتخاب سب رس“ سے کوئی دو (2) اقتباسات کو اپنے الفاظ میں قلم بند کیجئے۔
- 4 (4) صنفِ رباعی اور اس کی اقسام پر اظہارِ خیال کیجئے۔
- 5 (5) رپورتاژ کا فنی جائزہ لیجئے۔

Section – B

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

- 1 (6) قصیدہ ”درشانِ حمید الدولہ“ کا خلاصہ اپنے الفاظ میں تحریر کیجئے۔
- 2 (7) نصیر الدین ہاشمی کے مضمون ”قدیم اُردو (دکنی) میں نیچرل شاعری“ کا خلاصہ پیش کیجئے۔

Name of the Faculty :

Dr. MOHD MUSHTAQ AHMED

Dept. \_\_\_\_\_ URDU

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : II Title : SANSKRIT Year II YEAR  
Assignment For Year 2023-2024.  
Internal Assessment.

Section - A

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

- 1 प्रतिमानाटकस्य रचयिता कः। प्रतिमानाटकस्य तृतीयाङ्कस्य नाम लिखत।
- 2 प्रतिमागृहे स्थापितानां प्रतिमानां नामानि लिखत।
- 3 शिव्यानुशासनम् इति पाठ्यांशः कस्मात् सङ्गीतः।
- 4 दकारकथायाः किं शिक्षेत।
- 5 अनुवादत - "क्रियासिद्धिः सत्त्वे भवति महवां नोपकरणे।"

Section - B

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

- 1 द्वयोः शब्दयोः सर्वाणि विभक्तिरूपाणि लिखत -
- 2 लक्ष्यलक्षणसमन्वितम् "अथन्तरन्यासात्कङ्करी" विवृणुत।  
(1) वाच्य (2) विद्वस्य

Name of the Faculty : Dr. Jyoti N. Fouzdar

Dept. Sanskrit

INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. / B.Com. / BBA / BA (Maths & Stats) II year

Paper : II Title : Second Language (HINDI) Year II year

Section - A

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

- 1 कबीरदास ने निंदा करने वालों को अपने पास क्यों रखने के लिए कहा है ?
- 2 तुलसीदास ने संत, साधुओं की तुलना आम के वृक्ष से क्यों की है ?
- 3 सूरदास किसके भक्त थे ? उनकी प्रमुख रचनाओं के नाम लिखिए ।
- 4 कवि रहीम ने सज्जन लोगों की तुलना चन्दन के वृक्ष के साथ क्यों की है ?
- 5 कवि बिहारी ने सोने (स्वर्ण) और धतुरे के उदाहरण के द्वारा क्या कहा है ?

Section - B

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

- 1 आदि काल या वीरशाखा काल की परिस्थितियों का वर्णन कीजिए ।
- 2 मादा श्रृण कविता का सारांश लिखिए ।

Name of the Faculty : K. DATTATRAYA

Dept. HINDI



INTERNAL ASSIGNMENT- 2023 - 2024

Course : B.A. (Statistics) II year

Paper : II Title : Statistical Methods and Inference Year II

Section - A

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

1. Define Mathematical expectation. State and prove additive theorem.
2. Define correlation and regression. State properties of correlation coefficient and regression coefficients.
3. Define Population, sample, parameter, sample.
4. Explain Maximum likelihood Estimation.
5. Explain t-test for single mean and difference of means.

Section - B

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

1. Explain Criteria of good estimator with example.
2. State and prove Neyman Pearson Lemma.

Name of the Faculty : M. Anitha

Dept. Statistics

*Anitha*

INTERNAL ASSIGNMENT QUESTION PAPER - 2023-24

COURSE : B.A.(Maths & Applied Maths)

Paper: II Subject: Solid Geometry & Real Analysis Year II<sup>nd</sup> Year

Total Marks: 30

Section - A

UNIT - I : Answer the following short questions (each question carries three marks) 5x3=15

- 1 Find the angle between 2 planes  $2x - y + z = 6$  and  $x + 2y + 2z = 7$
- 2 Find the equation of the sphere through the four points  $(4, -1, 2)$ ,  $(0, -2, 3)$ ,  $(1, -3, -1)$ ,  $(2, 0, 1)$
- 3 Prove that  $\sum_{n=1}^{\infty} \frac{1}{\sqrt{n^4+1}}$  is divergent
- 4 Define chain rule
- 5  $\lim_{n \rightarrow \infty} \frac{\log n}{n^2}$

Section - B

UNIT - II : Answer the following Questions (each question carries Five marks) 3x5=15

- 1 Find the equation of the cone with vertex  $(3, 4, 3)$  and  $3x^2 + 2y^2 = 6$ ,  $5 + z = 0$  as base
- 2 State & prove Bolzano - Weierstrass Theorem
- 3 Show that the plane  $3x + 12y - 6z - 17 = 0$  touches the conical  $3x^2 - 6y^2 + 6z^2 + 17 = 0$  and find the point of contact.

Name of the Faculty : Dr. K. Ramesh Babu

Dept. of mathematics

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PROF.G.RAM REDDY CENTRE FOR DISTANCE EDUCATION

OSMANIA UNIVERSITY HYDERABAD-500 007

INTERNAL ASSIGNMENT 2023-2024

Course: BA (Maths & Stats),

Paper: II

Title: Applied Mathematics

Year: II Year

Section-A

Answer the following short question (each question carries two marks)  $5 \times 3 = 15$

1. Define orthonormal set of functions and show that the functions  $1, \cos x, \sin x, \cos 2x, \sin 2x, \cos 3x, \sin 3x, \dots$  are orthogonal on the interval  $(-\pi, \pi)$ .
2. Show that (i)  $(2n + 1)xP_n = (n + 1)P_{n+1} + nP_{n-1}$  if  $n$  is positive integer and (ii)  $J_n(-x) = (-1)^n J_n(x)$  if  $n$  is positive integer or  $n$  is negative integer
3. Solve  $3 \frac{\partial u}{\partial x} + 2 \frac{\partial u}{\partial y} = 0$  where  $u(x, 0) = 4e^{-x}$ .
4. Solve  $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = nu$  subject to  $u(x, 1) = x^3$ .
5. Solve the one-dimensional heat equation.

Section-B

Answer the following short question (each question carries two marks)  $3 \times 5 = 15$

1. Solve the two-dimensional Wave equation and also discuss a solution of the wave equation satisfied by a thin membrane bounded by a rectangle in  $x = 0, x = a, y = 0, y = b$ , subject the boundary conditions  $u(0, y, t) = 0 = u(a, y, t), u(x, 0, t) = 0 = u(x, a, t)$  and  $u(x, y, 0) = f(x, y)$  and  $\frac{\partial u}{\partial t} = g(x, y)$  at  $t = 0$ .
2. Solve the Three-dimensional Laplace equation. And also find the potential  $\Phi(x, y, z)$  in the region  $0 \leq x \leq a, 0 \leq y \leq b, 0 \leq z \leq c$ , satisfying the conditions (i)  $\Phi = 0$  when in  $x = 0, x = a, y = 0, y = b$  and  $z = 0$ . (ii)  $\Phi = f(x, y)$  on  $z = c, 0 \leq x \leq a, 0 \leq y \leq b$ .
3. Solve the three-dimensional heat equation in spherical polar coordinates

Dr. B. Mallesh

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