



GOVERNMENT COLLEGE, RAYACHOTY

Affiliated to Yogi Vemana University

Rayachoty - 516269



QUESTION PAPERS

II - SEMESTER

**B.Sc (CS), B.Sc (B.ZC), B.A, B.COM,
B.COM (CA)**

JUNE-JULY -2023

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part 1 (A) – English

Paper II – POETRY, PROSE, FURTHER READING AND LANGUAGE USAGE

(W.e.f. 2016 – 17 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION I

(PROSE)

Answer any THREE of the following questions:

(3 × 5 = 15)

1. Science directs the people in many ways. How?
2. What according to science are the advantages and disadvantages of a negro living in America?
3. What according to the author are the disadvantages of shocking hands?
4. How does the author differentiate greetings of different countries?
5. What is the common misconception about science?

SECTION II

(POETRY)

Answer any THREE of the following questions:

(3 × 5 = 15)

6. How does Keats compare Autumn to Sun?
7. What images of Autumn can you find in the poem "Ode to Autumn"?
8. What are the views of Kishwar Naheed the exploitation of the women?
9. How does the woman in the poster not want to be?
10. What kind of picture does Keats give of Autumn?

SECTION III
(SHORT STORY)

Answer any TWO of the following :

(2 × 5 = 10)

11. What did Nathu find the next morning?
12. How did Ganpat astonish everyone?
13. What was the impact of war on Subhaiah's business?
14. How did Subhaiah rise in fortune after his father's death?

SECTION IV
(ONE-ACT PLAY)

Answer any TWO of the following :

(2 × 5 = 10)

15. What is Chekhov's attitude towards the class of land owners?
16. Why did Chubukov call back Lowov even after insulting words?
17. What was the first cause of argument between Natalia and Lonov?
18. Do you think Lomov is really sick or did he act to be sick?

SECTION V
(LANGUAGE ACTIVITY)

19. (a) Change the following sentences into passive voice :

(3 × 1 = 3)

- (i) The boys are playing football.
- (ii) The posture gave the letter.
- (iii) Sita is eating an orange.

- (b) Change the following sentences into Indirect Speech.

(3 × 1 = 3)

- (i) He said to Geetha, "I have been waiting for you".
- (ii) John said, "I am going to the gym".
- (iii) Mohit said, "I have a holiday tomorrow".

- (c) Change the following into other Degrees :

(4 × 1 = 4)

- (i) Everest is higher than any other peak in the world. (Superlative)
- (ii) Sujatha is one of the most industrious girl. (Comparative)
- (iii) Madras is one of the biggest cities in India. (Positive)
- (iv) Kalidasa is greater than any other poet in Sanskrit. (Superlative)

- (d) Construct a neat paragraph using the hints given below : (1 × 5 = 5)

A young man of Thirty Eight – loses every job he takes up – proves unfit everywhere – gets a brilliant idea to return the school certificates – demands tuition fee back – head master and teachers are shocked at his proposal – demands a re-examination decides not to answer the of question – but teachers outwit him – the head master drives him out.

- (e) Write a dialogue between the customer and cashier in a bank about depositing amount in five alternative steps. (1 × 5 = 5)

- (f) Read the following passage and answer the questions that follow : (5 × 1 = 5)

There was a Guru who had mastered the scriptures. One day when he was teaching the vedas to his disciples, a cat started moving around, this did not disturb the Guru, but was a distraction to some of his disciples. So the Guru instructed his disciples to get hold of the cat and tie it to pillar. As the nuisance recurred on the following days, the cat was regularly tethered to the pillar before the Guru began his teaching.

Some years later, the Guru died. One of his disciples became the new head. The practice of tethering the cat to the pillar continued. After a few months the cat to the pillar continued. After a few months the cat died. When the Guru began his teaching the next day he noticed that the cat was missing. He said, "Don't you know that a cat must be tied to the pillar during my teaching? That is our tradition. Go and find a cat?". The disciples immediately obeyed the order. Blindly following traditions, thus, is foolish and serves no purpose.

- (i) Why were the disciples distracted?
- (ii) What was done to prevent the cat from roaming about?
- (iii) Who become the new head?
- (iv) What practice continued after the new Guru too charge?
- (v) Give the antonym of the word "foolish"?

2 RS 20

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part I (A) – English

Paper II — A COURSE IN READING AND WRITING SKILLS

(w.e.f. 2020 - 2021 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

-
1. Answer any THREE of the following questions : (3 × 5 = 15)
- (a) Summarise the article "on Avoiding Foolish opinions"?
 - (b) Explain how psychological imagination helps one in avoiding foolish opinions.
 - (c) How did Burnell react to their new possession?
 - (d) What impressed Kezid most in the doll's house?
 - (e) How were the soldiers regarded by authorities?
 - (f) What are different duties Florence was forced to perform?
2. Answer any THREE of the following questions : (3 × 5 = 15)
- (a) How did the poet come to know about the broken statue of Ozymandias?
 - (b) What is the central idea of the poem "Ozymandias"?
 - (c) What comparison did the poet give between the poet and the dead habit?
 - (d) Describe the poet's version of "heaven of freedom".
 - (e) Who are the kings of the sea?
 - (f) How does Sarojini Naidu describe a day in the lives of the fishermen?
3. Answer any TWO of the following questions : (2 × 5 = 10)
- (a) What did the narrator decide to do one day in Deoli?
 - (b) Describe Deoli station in your words.
 - (c) Why did the astrologer feel challenged?
 - (d) What are the different types of paragraphs?

4. Read the following passage carefully and answer the questions that follows : (5 × 1 = 5)

Once a five-year-old girl asked her mother, "Why do you keep our ornaments in the locker even though the maid is in our house for twenty-four hours?" The mother replied, "These ornaments are very precious so I can't keep them with our maid". The girl felt very sad about it. She asked her mother innocently, "Am I, then, not as precious as our ornaments?"

- (a) How old was the little girl?
- (b) Where did they keep their Jewellery?
- (c) The girl felt sad about it. About what?
- (d) Who looked after that young girl during work hours?
- (e) Give the antonym of precious.

5. Match the following notes with their meanings. (5)

Column – A

Column – B

- | | |
|---------------|---|
| (a) Honorary | (i) One who eats excessively |
| (b) Polyglot | (ii) One who looks at dark side of things |
| (c) Glutton | (iii) A fictitious name |
| (d) Pessimist | (iv) Doing work without any remuneration |
| (e) Pseudonym | (v) One who knows many languages |

6. Expand any ONE of the following : (1 × 5 = 5)

- (a) Where there is a will, there is a way
- (b) Make hay while the sunshine.

7. Choose the most appropriate collection from the choices to make a meaningful sentence. (5 × 1 = 5)

- (a) The _____ (sea/see) is blue in colour
- (b) Mom is taking a _____ (coarse/course) is gardening
- (c) Will you help me _____ (grate/great) the cheese?
- (d) TB is now a curable _____ (disease/decease)
- (e) Every one attended the party _____ (except/expect) his grand father

8. Read the following passage and make notes. (1 × 5 = 5)

Verbs are all important in English. They are broadly of two class. They are main verbs and helping verbs. Helping verbs are again sub divided into four categories. They are 'be' forms, 'do' forms, 'have' forms and models. Main verbs classify themselves into regular and irregular verbs. They, at another level, are of 'transitive', 'intransitive' and 'ditransitive' types.

9. Answer any ONE of the following : (1 × 5 = 5)

- (a) Write an informal letter to your friend inviting him to your brother's marriage.
- (b) Write a letter to the principal about ragging in your college.

10. Prepare a curriculum vitae/Resume for any ONE of the following advertisements. (1 × 5 = 5)

- (a) What is the format of a CV?
- (b) Prepare a CV for the post of front office assistant.

2 RS 21

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION,
JUNE/JULY 2023.

SECOND SEMESTER

Part I (B) – Another Language – Hindi

Paper II – PROSE, SHORT STORIES AND GRAMMAR

(w. e.f. 2020-2021 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART – A

1. निम्नलिखित में से किन्हीं तीन प्रश्नों का उत्तर दीजिए। (3 × 10 = 30)
- (a) 'वापसी' कहानी का सारांश लिखिए।
 - (b) 'भूख हडताल' का मुख्य उद्देश्य लिखिए।
 - (c) 'भारत एक है' कहानी का सारांश लिखिए।
 - (d) साहित्य और संस्कृति में क्या संबंध है?
 - (e) एड्स का संक्रमण किसके माध्यम से नहीं होता है?
 - (f) एड्स के इतिहास पर प्रकाश डालिए।

PART – B

2. किन्हीं दो प्रश्नों का उत्तर दीजिए। (2 × 10 = 20)
- (a) भारत में विविधता किन-किन बातों में दिखाई देती?
 - (b) 'परमात्मा का कुत्ता' कहानी का सारांश लिखिए।
 - (c) एड्स को कैसे निवारण कर सकते हैं?
 - (d) संस्कृति से क्या संबंध है? उदाहरण दीजिए।

PART – C

3. निम्नलिखित प्रश्नों को हल कीजिए
- (a) निम्नलिखित पाँच शब्दों का अनुवाद हिन्दी में कीजिए। (5)
 - (i) Evidence
 - (ii) Examiner
 - (iii) Error
 - (iv) Property
 - (v) Manager
 - (vi) Extra
 - (vii) Clerk
 - (viii) Note
 - (ix) Certificate
 - (x) Mine

(b) निम्नलिखित पाँच शब्दों का अंग्रेजी में अनुवाद कीजिए।

(5)

- | | |
|-----------------|-----------------|
| (i) प्रशासक | (ii) पत्रकार |
| (iii) निगम | (iv) सभापति |
| (v) मुख्यमंत्री | (vi) लिपिक |
| (vii) टंकक | (viii) प्रबन्धक |
| (ix) अध्यापक | (x) निदेशक |

(c) निम्नलिखित शब्दों में किसी पाँच शब्दों का वाक्य में प्रयोग कीजिए।

(5)

- | | |
|------------------|--------------------|
| (i) प्रवेश | (ii) मुख्यमंत्री |
| (iii) राष्ट्रपति | (iv) उप-राष्ट्रपति |
| (v) राज्यपाल | (vi) आरंभ |
| (vii) अकाल | (viii) गरीब |
| (ix) धनिक | (x) धन्यजीव |

(d) (i) सर्वनाम किसे कहते हैं? उसके कितने भेद हैं?

(5)

या

(ii) निम्नलिखित किसी पाँच शब्दों का सन्धि-विच्छेद कीजिए।

- | | |
|---------------|---------------|
| (1) मनोजकुमार | (2) महात्मा |
| (3) महोदय | (4) राधाकृष्ण |
| (5) भानूदय | (6) आत्मकथा |
| (7) विद्यालय | (8) तुंबुरनाथ |
| (9) कमलेश्वर | (10) आदीश्वर |

(e) (i) तीन दिन की छुट्टी माँगते हुए, अपने कालेज के प्राचार्य के नाच पर छुट्टी पत्र लिखिए।

(5)

या

(ii) पुस्तक विक्रेता के नाम पर पुस्तकों के लिए आवेदन पत्र लिखिए।

RS 23

THREE YEAR B.A./B.Sc./B.Com.. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part I (B) – Another Language — Telugu

Paper II – ANCIENT AND MODERN POETRY, NON-DETAILED TEXT

(W.e.f. 2016–17 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

విభాగము అ - (5 × 5 = 25 మార్కులు)

క్రింది వానిలో ఐదింటికి సమాధానములు వ్రాయుము.

1. పాము, ఏనుగుల భక్తిని వివరించండి.
2. సుభద్రార్జునుల వివాహ ఘట్టాన్ని వివరించండి.
3. ఈ క్రింది వానికి సందర్భసహిత వ్యాఖ్యలు వ్రాయండి.
(అ) రాత్రి శివరాత్రిగా జాగరమ్ము జేసె.
(ఆ) యత్తటి గుసగుసలఁ బోయి రచ్చరవెల్లన్.
4. ఈ క్రింది వానికి సందర్భసహిత వ్యాఖ్యలు వ్రాయండి.
(అ) నా కవిత నీకు లభించె న సత్య వాణికిన్.
(ఆ) నీవు నిజముగ ప్రత్యక్ష దైవతమవు.
5. ఫిరదౌసి ప్రభువుకు పంపిన లేఖలోని అంశములు ఏవి?
6. 'నమ్ముకున్న నేల' ఆధారంగా గ్రామాలలోని రైతుల స్థితిగతులను వివరించండి.
7. 'అమ్మకు ఆదివారం లేదా?' కథలోని స్త్రీల జీవన విధానాన్ని చిత్రించండి.
8. బతుకాట నవలలో 'వేంకోజీ' గురించి వ్రాయండి.

11 10

క్రింది వానిలో అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ఈ క్రింది పద్యాల్లో ఒక దానికి ప్రతిపదార్థ తాత్పర్యాలు రాయండి.

9. త్రేతాంతమున నొక్క కాలఫణి, భక్తి నివృత్తమాణిక్యముల్
పాతాళంబున నుండి తెచ్చి, దినమున బాలేందు చూడార్చనల్
ప్రాతర్వేళలజేయు, ద్వాపరముగ ప్రారంభమైన స్మృతా
తీతు న్మంకరుఁ గొల్వవచ్చెనొక హస్తీ శ్రేష్ఠ మచ్చటికిన్.

లేదా

10. చక్కెర వింటిరాజు నెకనక్కము లాడఁగఁజాలు నెక్కుడుం
జక్కడనంబు గల్గు నెఱ సాహస వుంగొమరుండు మ్రొక్కఁగా
నక్కునఁజేర్చి, మేనిమిరి, యౌదల మూర్కొని, చొక్కుచుండెలో
నెక్కొను వేడ్క నిక్కు చెవిసీలని నెక్కువజీరుడయ్యెడన్.

11. శివపూజలో పాము, ఏనుగుల పూజా విధానను వివరించుము.

లేదా

12. సుభద్రా పరిణయ వృత్తాంతాన్ని వివరించండి.

13. 'ఫిరదౌసి లేఖ' సారాంశాన్ని వివరించండి.

లేదా

14. 'చెట్టు' గొప్పతనాన్ని గెడ్డాపు సత్యం వర్ణించిన విధానాన్ని తెలపండి.

15. నమ్మకున్న నేల కథా ఇతివృత్తంను వివరించండి.

లేదా

16. 'అమ్మకు ఆదివారం లేదా?' కథలోని సారాంశాన్ని వివరించండి.

17. బతుకాట నవలలోని స్త్రీ పాత్రలను గురించి వివరించండి.

లేదా

18. బతుకాట నవలలో కనబడే సామాజిక పరిస్థితులను వివరించండి.

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION,
JUNE/JULY 2023.

SECOND SEMESTER

Part I (B) – Another Language – Sanskrit

Paper II — POETRY, PROSE AND GRAMMAR

(w.e.f. 2020-21 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

सूचना : द्वितीय - तृतीय - चतुर्थ - पञ्चम - दशम - प्रश्नाः अवश्यं संस्कृत भाषायामेव समाधेयाः।

Q. No. 2, 3, 4, 5 and 10 should be answered in Sanskrit only.

प्रथमो भागः (25 marks)

1. द्वौ श्लोकौ पूरयित्वा भावं च लिखत। (2 × 3 = 6)
 - (a) इक्ष्वाकुवंश्यः _____ कोसलेन्द्रा।
 - (b) कुलेन _____ काञ्चनेन।
 - (c) लिप्तं _____ विरज्जिताः।
 - (d) पृथक् पृथक् _____ तान्।
2. द्वयोः सम्पूर्ण शब्दरूपाणि लिखत। (2 × 3 = 6)

(a) नदी	(b) फल
(c) मधु	(d) वधू
3. द्वयोः धातवः लकारे सर्वानिरूपाणि लिखत। (2 × 2½ = 5)

(a) एषिष्यति	(b) लिखेतु
(c) क्रेष्यति	(d) वन्दते
4. चतुर्णां नामनिर्देशपूर्वकं सन्धिं विभजत। (4 × 1 = 4)

(a) विद्वाल्लखति	(b) तदपि
(c) कुर्वण्णेव	(d) लक्ष्मीं वन्दे
(e) शिवोऽहम्	(f) नरा गच्छति
(g) गुरोराज्ञा	(h) जनास्तिष्ठन्ति

5. चतुर्णां नामनिर्देशपूर्वकं विग्रहवाक्यानि लिखत।

(4 × 1 = 4)

- | | |
|---------------|----------------|
| (a) उपलोचनम् | (b) अतिनिद्रम् |
| (c) परोक्षम् | (d) सचक्रम् |
| (e) चित्रगुः | (f) दत्तपशुः |
| (g) चक्रपाणिः | (h) सकृष्णः |

द्वितीयो भागः (50 marks)

6. द्वयोः आन्ध्रभाषायां वा आंग्लभाषायां वा अनुवदत।

(2 × 3 = 6)

- (a) 'नूनमेषा फर्वजन्मनि मे जाया यज्ञवती! नो चेदेतस्यामेवं
विधोऽनुरागो मन्मनसि न जायते! शपावशानसमये
तपोनिधिदत्तं जातिस्मरत्वमावयोः समानमेव'।
- (b) क्रियावसाने सति 'इन्द्रजाल पुरुषां, सर्वे गच्छन्तु भवन्तः' इति द्विजन्मनोच्चैरुच्यमाने सर्वे मायामानवा यथायथमन्तर्भावं
गताः।
- (c) 'चारुदत्तः कथमभिसर्तव्यः कथं वा तस्य समागतोऽविच्छिन्नं
सुलभः संपद्येत' इति विचिन्तयन्ती सदा तस्थौ।
- (d) गतविभवः चारुदत्तो नाम ब्राह्मणः अत्र नायकः गुणपरितोषिणी वेश्या वसन्तसेना अत्र नायिका। प्रायशः नाटकेषु नायकाः
रामादयो वीराः भवन्ति।

7. (a) 'इन्दुमती स्वयंवरम्' इति पाठ्यभागस्य सारांशं लिखत।

(1 × 8 = 8)

अथवा

(b) वृद्धोपदेशान् विवृणुत।

8. (a) भगीरथः किं निमित्तीकृत्य घोरं तपस्तेपे।

(1 × 8 = 8)

अथवा

(b) मोहापनोदः पाठस्य सारं लिखत।

9. (a) 'अवन्तीसुन्दरीकथा' इति पाठस्य सारं लिखत।

(1 × 8 = 8)

अथवा

(b) वसन्तसेना चारुदत्तयोः समावेशं विवृणुत।

10. चतुर्णां लघुसमाधानानि लिखत।

(4 × 2 = 8)

(a) इन्दुमती का?

(b) भूमिपालः कथं विवर्णभावं गतः?

- (c) वनस्यः कः ?
- (d) वृद्धस्य अनर्थान्तराणि निर्दिशत।
- (e) मनोरमा का ?
- (f) सगरपुत्राः केन भस्मी कृताः ?
- (g) दण्डी कस्मिन् प्रसिद्धः ?
- (h) चारुदत्तस्य प्रेयसी का ?

11. चतुर्णां ससन्दर्भं वाक्यानि लिखत।

(4 × 3 = 12)

- (a) विवर्णभावं सः स भूमिपालः।
- (b) कण्ठे गुणं मूर्तिमिवानुरागम्।
- (c) सोऽमापगामाप गामिव।
- (d) पपात पार्वतीकान्तजटाकान्तारगह्वरे।
- (e) को भवान् ? कस्यां विद्यायां निपुणः ?
- (f) निःशङ्कमित आगम्यताम् इति।
- (g) सपट्टेण शीर्षेण त्वां प्रसादयामि।
- (h) एकाकिन्यां मयि किमकार्यमेतौ पापौ न करिष्यतः।

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION,
JUNE/JULY 2023.

SECOND SEMESTER

Part I (B) – Another Language – Urdu

Paper II – URDU POETRY

(w.e.f. 2020-21 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A – (5 × 5 = 25 marks)

- I. ذیل میں سے کوئی پانچ (5) سوالوں کے جواب لکھئے:
1. مثنوی کی تعریف کرتے ہوئے اردو کی اہم مثنویوں کے نام لکھئے۔
2. میر انیس کا مختصر تعارف پیش کیجئے۔
3. غالب کی حیات پر مختصر روشنی ڈالئے۔
4. امجد حیدر آبادی کے بچپن کے بارے میں اپنی معلومات لکھئے۔
5. نصاب میں شامل ساغر جیدی کی کوئی ایک رباعی لکھئے۔
6. رباعی کی ہیئت پر روشنی ڈالئے۔
7. امجد حیدر آبادی کی کوئی ایک رباعی تحریر کیجئے۔
8. مثنوی سحر البیان کے پانچ کرداروں کے نام لکھئے۔

II. مندرجہ ذیل سوالوں کے جواب مطلوب ہیں :

9. اردو مثنوی میں ”مثنوی سحرالبیان“ کی مقبولیت کے اسباب قلم بند کیجئے۔

یا

10. میر حسن کی مثنوی نگاری کی خصوصیات کی نشاندہی کیجئے۔

11. مرثیہ کی تعریف کرتے ہوئے مرثیہ کے فن پر روشنی ڈالئے۔

یا

12. میر انیس کی مثنوی نگاری پر سیر حاصل مضمون لکھئے۔

13. غالب کی قصیدہ نگاری کی خصوصیات کا احاطہ کیجئے۔

یا

14. نصاب میں شامل غالب کے قصیدہ پر نوٹ لکھئے۔

15. نصاب میں شامل امجد حیدر آبادی کے رباعیات کی تشریح کیجئے۔

یا

16. بحیثیت رباعی گوشا غر جیدی کے مقام کو متعین کیجئے۔

17. امجد حیدر آبادی کی سوانحی حالات پر روشنی ڈالئے۔

یا

18. ساغر حیدری کے حالات زندگی پر تفصیلی مضمون لکھئے۔

RS 26112

THREE YEAR B.A./B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Mathematics

Paper – II – SOLID GEOMETRY

(w.e.f 2015-16 Admitted batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Show that the points (2, 2, -1), (7, 0, 6), (3, 4, 2), (0, 4, -3) are coplanar.
2. Show that $2x^2 - 2y^2 + 4z^2 + 2yz + 6zx + 3xy = 0$ represents a pair of planes.
3. Find the equation of the line of projection of the line $\frac{x-1}{2} = \frac{y}{-1} = \frac{z+2}{1}$ in the plane $2x + y - 3z - 4 = 0$.
4. Find the distance of the point (1, -2, 3) from the plane $x - y + z = 5$ measured parallel to the line whose d.c's are proportional to 2, 3, -6.
5. Find the tangent planes to the sphere $x^2 + y^2 + z^2 - 4x + 2y - 6z + 5 = 0$ which are parallel to $2x + 2y - z = 0$.
6. Show that the point $p(1, -1, 2)$ and $Q(-2, 0, 4)$ are conjugate points w.r.t the sphere $x^2 + y^2 + z^2 - 6x + 2y - 3z + 1 = 0$.
7. Find the equation of the cone whose vertex is (1, 1, 0) and guiding curve is $y = 0, x^2 + z^2 = 4$.
8. Find the condition that the plane $ux + vy + wz = 0$ may touch the cone $ax^2 + by^2 + cz^2 = 0$.
9. Find the reciprocal cone of the cone $2x^2 + 3y^2 + 4z^2 + 2yz + 4zx + 6xy = 0$.
10. Find the equation of the cylinder, whose generators are parallel to $\frac{x}{1} = \frac{y}{2} = \frac{z}{3}$ and which passes through the curve $x^2 + y^2 = 16, z = 0$.

PART B — (5 × 10 = 50 marks)

Answer ALL questions.

11. Find the bisecting plane of the acute angle between the planes $3x - 2y - 6z + 2 = 0$, $-2x + y - 2z - 2 = 0$.

Or

12. Show that the equation $x^2 + 4y^2 + 9z^2 - 12yz - 6zx + 4xy + 5x + 10y - 15z + 6 = 0$ represents a pair of planes and find the distance between them.

13. Find the length and equation of the line of shortest distance between the lines $\frac{x}{1} = \frac{y}{2} = \frac{z}{1}$ and $x + y + 2z - 3 = 0 = 2x + 3y + 3z - 4$.

Or

14. Find the length of the perpendicular from the point (1, 2, 3) to the line through the point (6, 7, 7) whose direction ratios are 3, 2, -2.

15. Prove that the plane $x + 2y - z = 4$ intersects the sphere $x^2 + y^2 + z^2 - x + z - 2 = 0$ in a circle of radius unity. Also find the equation of sphere which has this circle as one of the great circles.

Or

16. Find the centre and radius of the circle $x^2 + y^2 + z^2 + 2x - 2y - 4z - 19 = 0$, $x + 2y + 2z + 7 = 0$.

17. Find the equation of the sphere which belongs to the Coaxial system defined by $x^2 + y^2 + z^2 - 2x + 3y - 4z + 6 = 0$, $3x - 4y + 5z - 15 = 0$ and intersecting the sphere $x^2 + y^2 + z^2 + 2x + 4y - 6z + 11 = 0$ orthogonally.

Or

18. If the line $x = \frac{y}{2} = z$ represents one of the three mutually perpendicular generators of the cone $11yz + 6zx - 14xy$, find the other two generators.

19. Find the equation to the right circular cone which passes through (1, 1, 1), whose vertex is (1, 0, 1) and axis of the cone makes equal angles with coordinate axes.

Or

20. Find the equation to the right circular cylinder whose guiding curve is $x^2 + y^2 + z^2 = 9$, $x - y + z = 3$.

RS 203

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part III — Foundation Course — 3 – Information And Communication Technology – I

COMPUTER FUNDAMENTALS AND OFFICE TOOLS

(W.e.f. 2016-17 Admitted Batch)

Time : Two hours

Maximum : 50 marks

(No additional sheet will be supplied)

SECTION A — (5 × 2 = 10 marks)

Answer any FIVE questions.

Each question carries 2 marks.

ఏవేని ఐదు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 2 మార్కులు.

1. Explain Central Processing Unit.
CPU గురించి వివరించండి.
2. Write about Input devices.
ఇన్పుట్ పరికరముల గురించి వ్రాయండి.
3. Define software. List types of software.
సాఫ్ట్వేర్ను నిర్వచించండి. సాఫ్ట్వేర్ రకములను వ్రాయండి.
4. Write about MS-DOS.
MS-DOS గురించి వ్రాయండి.
5. Describe inserting Word Art.
Word Art ను ఎలా insert చేయగలరు.
6. Write about creating documents.
డాక్యుమెంట్లు క్రియేట్ చేయుట గురించి వ్రాయండి.
7. Write about adding Clip Art.
Clip Art ను add చేయడం గురించి వ్రాయండి.
8. Explain inserting a new slide in a presentation.
Presentation లో కొత్త slide ను insert ఎలా చేస్తారు?

9. Write about referencing cells in MS Excel.

MS Excel లో cell ను రెఫరెన్స్ చేయడం గురించి వ్రాయండి.

10. Explain entering and editing text in MS Excel.

MS Excel లో text ను enter చేయడం, edit చేయడం గురించి వ్రాయండి.

SECTION B — (5 × 8 = 40 marks)

Answer ALL questions.

Each question carries 8 marks.

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 8 మార్కులు.

11. Write about characteristics and applications of Computers.

Computer యొక్క లక్షణాలు మరియు ఉపయోగాల గురించి వ్రాయండి.

Or

12. Explain different types of computers.

వివిధ రకముల కంప్యూటర్ల గురించి వివరించండి.

13. Explain primary, auxiliary and cache memory.

ప్రైమరీ మెమరీ, ద్వితీయ మెమరీ, cache మెమరీలను వివరించండి.

Or

14. Explain functions of an operating system.

ఆపరేటింగ్ సిస్టమ్ యొక్క ఫంక్షన్లు వివరించండి.

15. Explain features of MS Word.

MS Word యొక్క ఫీచర్లు వివరించండి.

Or

16. Describe the concept of Mail Merge in MS Word.

MS Word లోని మెయిల్ విలీనం గురించి వ్రాయండి.

17. Explain creating a presentation using a template.

టెంప్లేట్‌ను ఉపయోగించి ప్రజెంటేషన్‌ను తయారుచేయుట గురించి వివరించండి.

Or

18. Write about slide transition and custom animations.

Slide ట్రాన్సిషన్ మరియు కస్టమ్ అనిమేషన్ గురించి వ్రాయండి.

19. Explain features of MS Excel.

MS Excel లోని ఫీచర్లు వివరించండి.

Or

20. Write about inserting rows/columns, changing column widths and row heights in MS Excel.

MS Excel లో rows లేదా column లను insert చేయడం గురించి మరియు column వెడల్పులను, row

ఎత్తులను మార్చడం గురించి వ్రాయండి.

RS 25004

II Semr - 22-23

THREE YEAR B.Com (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Computer Applications

ACCOUNTING II

(w.e.f 2016 – 17 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Define Depreciation? Causes of arising Depreciation.
2. Advantages of straight line method.
3. Provision Vs Reserve.
4. Provision for Bad & doubtful debts.
5. Features of bill.
6. Parties in the bill.
7. Define Normal Loss and Abnormal Loss.
8. Proforma Invoice Vs Account Sales.
9. Joint Venture Vs Consignment.
10. Methods of keeping records in Joint venture.

PART B — (5 × 10 = 50 marks)

Answer ALL questions.

11. ON July 1 2014 Granites Ltd. Purchased Second hand machine for Rs. 40,000 and reconditioned the same by spending Rs. 6,000. On January 1,2015 a new machine was purchased for Rs. 24,000. On June 30, (2016 the machine purchased on January 1 2015 was sold for Rs. 16,000 and another machine was installed at a cost of Rs. 30, 000.)

The company writes off 10% on original cost every year on march 31. show the machinery account update.

Or

12. A firm purchases a 5 year's lease for Rs. 4,00,000 on 1st January 2010. It decides to write off depreciation on the Annuity method, presuming the rate of Interest to be 5% per annum. The annuity tables show that a sum of Rs. 92,390 should be written off every year. Show the Lease Account for five years. Calculation are to be made to the nearest rupee.
13. The following figures appear in the books of Gaurav:

	Rs.
Provision for bad debts as on 1-4-2014	8,000
Provision for discount on debtors as on 1-4-2014	6,000
Discount allowed during the year ended 31-3-2015	8,000
Bad debts written off during the year ended 31-3-2015	4,000
Sunday debtors as on 31-3-2015	98,000

Create the provision for bad debts @ 5% and provide for discount allowed on debtors @ 10%

Show the Baddebts Account, provision for Baddebts Account, Discount Allowed Account and provision for Discount allowed Account.

Or

14. A firm desires to debit its profit and Loss account with a uniform figure every year in respect of repairs & renewals. It expects that considering the Life of the asset in Rs. 20,000 will be the average amount to be spent per year. Actual repairs are Rs. 2000 in the first year. Rs 7,600 in the Second year and Rs. 3,700 in the third year. Show the provision for repairs and renewals account.
15. On 1st July 2018, X sold goods to Y for Rs. 15,000 and drew a bill on Y for 3 months. Y accepted the bill for Rs. 15,000 and returned to it to x who discounted it on 3rd July, 2018 with his bank at 12% p.a. Y met his acceptance on the due date. Pass necessary Journal entries in the books of both the parties.

Or

16. Journalise the following transactions in the books of aravind and Anubhav. (a) Aravind's acceptance to Anubhav for Rs. 1,000 renewed for 4 months at 9% p.a. interest. (b) Anubhav's acceptance to a Aravind for Rs. 2,000 was renewed by a cheque of Rs. 800 and a new bill for the balance at 3 months at 9% p.a interest. (c) Anubhav's acceptance for Rs. 1,600 was retired by a cheque of Rs. 800 and a new bill for the balance for 2 months, interest at 9% p.a. being paid in cash forth with.

17. X as a consignee of y holds a stock of goods sent to him on consignment by the later worth Rs. 20,000 as on 1-4-2015. X had instructions to sell 20,000 as on 1-4-2015. X had instructions to sell the goods at cost plus 25% and was entitled to a commission of 4% on sales and in addition 1% 'del credere' commission on total sales. During the period upto 30th September, 2015. Cash sales were Rs. 1,20,000, credit sales Rs. 1,05,000 and the expenses relating to consignment Rs. 3,000 (salaries and insurance of godown). Bad debts were Rs. 3000 and goods sent on consignment Rs. 2,00,000. From the above, prepare ledger accounts in the books of consignor.

Or

18. On 1st January 2007, Bharat coal company Ltd. Consigned to Kala Ram of Karnal 1,000 tones of coal, the pit cost of the coal being Rs. 100 per tone. The company had paid Rs. 10,000 towards freight and insurance.

Kala Ram took delivery of the goods consigned on 10th January 2007 and immediately acceptance a bill drawn on him for Rs. 50,000 for 2 months. on 31st march when the company accounts are closed the consignee reported that:

- (a) There was a shortage of 50 tons on the whole consignment due to loading and unloading of the coal.
- (b) 800 tons were sold at Rs. 130 per ton.
- (c) He had incurred the following expenses:

Godown rent Rs. 500, insurance Rs. 500 and selling expenses Rs. 1,000

Kala Ram is entitled to a commission of 4% on the sale proceeds.

Show the necessary accounts in the books of Bharat coal company Ltd. assuming that kala ram had remitted the balance due by bank draft on 31st march, 2007.

19. Madhavi and Mamatha entered into a joint venture in which madhavi would manage the business. They brought Rs. 10,000 cash in case for the venture. Madhvi purchased goods for Rs. 19,000 and sold it for Rs. 25,000. Expenses on the venture paid by her amounted to Rs. 1,000. Madhavi would get a commission of 4% on sales. They shared profits and losses equally. Pass Journal entries and prepare ledger accounts in the books of Madhavi.

Or

20. A and B enter into Joint Venture sharing profit $\frac{3}{5}$ th and $\frac{2}{5}$ th. A is to purchase timber in Madhya Pradesh and forwarded it to B in delhi. A purchases timber worth Rs. 10,000 and pays Rs. 1,000 as expenses. B received the consigned and immediately accepted A's draft for Rs. 8,000. A gets discounted for Rs. 7,850. B sold the timber for Rs. 16,000. He has to spend Rs. 350 for fire insurance and Rs. 300 for other expenses under the agreement he is entitled to a commission of 5% sales. Give ledger accounts in the books of A and B.

2 RS 24004

THREE YEAR B.Com (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Computer Applications

FINANCIAL ACCOUNTING – I

(w.e. 2020-21 admitted batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE of the following questions.

1. Depreciation
2. Provision for Bad and Doubtful debts
3. Features of Bill
4. Explain Normal and Abnormal Loss
5. Difference between Joint Venture and Consignment
6. Govind Brothers purchased a Machinery on Jan. 1, 2006 at Rs.7,200. The scrap value in ten years time is expected to be Rs. 1,700. If depreciation is written off by equal installments on Dec.31 every year, show the machine account for the first three years.
7. Types of Provisions.
8. Delcredere commission

SECTION B — (5 × 10 = 50 marks)

Answer FIVE questions.

9. (a) Explain different methods of Charging Depreciation.

Or

- (b) Dinakar purchased machinery for Rs.47,000 and spent Rs. 3,000 for installation on 01-04-2015. On 1st July 2016 he purchased another machinery for Rs.30,000. On 30-June-2017 he sold the machinery purchased on 1st April 2015 for Rs.35,000 and purchased another machinery for Rs. 40,000. He depreciates machinery at 10% on reducing balance method and closes his books on 31 Dec. every year. Show machinery account up to 31- Dec. 2017.

10. (a) On 1 January 2013, a reserve for doubtful debts account shows a credit balance of Rs. 16,000. The bad debts during the year amount to Rs.10,500. The debtors at December 31, 2013 are Rs. 3,00,000 and at 5% reserve for doubtful debts is required to be maintained. The bad debts in 2014 amount to Rs.16,250. On December 31, 2014 the debtors are Rs. 3,00,000 and a 5% Reserve for doubtful debt is required to be kept. The bad debts in 2015 amount to Rs. 4,500 On December 31, 2015 the debtors are Rs. 1,45,000 and 5% reserve for doubtful debts is to be maintained.

Pass journal entries and open Bad debt account and Reserve for Doubtful debts account for all the three years.

Or

- (b) The following are the details from the books of a firm.

Balance in reserve for doubtful debts on 1.1.2013 Rs.6,800.

Bad debts written off in the year Rs.4,200.

Sundry debtors on 31.12.2013 Rs.80,000.

Actual bad debts Rs.2,400. Create 5% reserve on sundry debtors. Prepare bad debts a/c, reserve for bad debts a/c and profit and loss a/c.

11. (a) On 1-3-2015 Dharma purchased goods worth of Rs.5,000 from Bhima for which he accepted a 3 months bill. On 3-3-2015 Bhima endorsed the bill to Arjuna in payment of his debt. Three days later Arjuna endorsed it to Nakula. On 1-4-2015 Nakula purchased Rs.5,000 goods from Sahadeva on credit for which he endorsed bill received from Arjuna to Sahadeva. On the date Dharma failed to meet his acceptance. Pass necessary journal entries in the books of all the parties.

Or

- (b) On 1st January, 2015 David accepted a three months bill for Rs.2,000 drawn on him by Raju for latter's benefit. Raju discounted the bill on 4th January @ 6% per annum and at maturity sent David a cheque for Rs.2,000 in order to enable him to honour the bill. David duly honored his acceptance. Pass journal entries in the books of Raju and David.

12. (a) On 1st July, 2003 P & Co., sends 500 cases of medicines to Ravi on consignment basis. The cost of each case was Rs.1,000. P & Co., incurred the following expenses on the consignment Rs.1,000 on railway freight and Rs.500 on insurance.

400 cases were sold by Ravi uniformly at Rs. 2,000 per case. Out of these 20 cases were sold to a party on credit and this transaction ultimately proved bad. The expenses of Ravi amounted to Rs.2,500. He sent an account sales on 31-12-2003 which revealed that he charged 5% ordinary commission and 10% as delcredere commission. He sent a bank draft for the balance amount.

You are required to prepare consignment account, Ravi's account in the books of P & Co.

Or

2 RS 24004

- (b) Radha of Vijayawada consigned 2,000 cases of Apples to Malathi of Eluru @Rs.300 each. Radha paid freight Rs.2,000. During transit 200 cases were totally damaged. Malathi took delivery of the remaining cases and paid Rs. 30,000 towards clearing charges to godown. Malathi sent a bank draft to Radha for Rs.15,000 as advance and later sent account sales showing that Rs.1,600 cases were sold @Rs.440 each. Selling expenses incurred by Malathi amounted to Rs.5,000 she is entitled to commission of 10%. She settled her account by sending a demand draft to the balance amount. In the books of Radha prepare consignment account and Malathi account.

13. (a) Satyam and Sivam entered a Joint Venture to purchase and sell timber. Profits and losses were to be shared equally. Satyam financed the venture and Sivam undertook the sales. Sivam is entitled to a commission of 5% on the sale proceeds.

Satyam purchased goods to the value of Rs. 60,000. He also paid towards freight Rs. 1,600 and advanced Rs. 1,000 to Sivam to meet the expenses of Joint Venture. Sivam paid for carriage Rs. 200, rent Rs. 400 and sundries Rs. 100. Sales made by Sivam amount to Rs. 74,500.

It was agreed that Satyam should receive Rs. 3,400 as interest on his investment. The remaining stock of unsold goods were taken over by Sivam at an agreed valuation of Rs. 2700. Give journal entries and show Joint Venture Account in the books of Satyam.

Or

- (b) Discuss Joint Ventures features and advantages.
-

2 RS 26032

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023

SECOND SEMESTER

Biotechnology

MICROBIOLOGY, CELL AND MOLECULAR BIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions and draw diagrams wherever necessary:

1. Antony Van Leeuwenhoek
2. Bacteriophage (T4 phage)
3. Ribosomes
4. Lac Operon
5. Genetic Code
6. Bacterial growth curve
7. Gram Staining
8. HIV

PART B — (5 × 10 = 50 marks)

Answer ALL questions and draw diagrams wherever necessary:

9. (a) What is Pure Culture? Explain various Pure Culture Techniques.
(Or)
(b) Write about the different methods of Sterilization.
10. (a) General characteristics of Mycoplasma and their importance
(Or)
(b) Give a note on Sars Covi-2
11. (a) Describe about the structure, properties and functions cellular organells of Eukaryoti cells
(Or)
(b) Explain about cell cycle and cell division.

12. (a) Explain about the DNA damage and repair.

Or

(b) Describe about different types of Replications and give a note on the mechanism of Replication.

13. (a) Explain about Prokaryotic Transcription and enzymes involved in transcription.

Or

(b) Explain the mechanism of translation in Prokaryotic organisms.

2 RS 56036 B

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

FIFTH SEMESTER

Biotechnology

Paper VIB : ORGANIC FARMING

(w.e. from 2020-2021 admitted batch)

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 2 = 10 marks)

Answer ALL questions

1. Heavy metal contaminated soil
2. Importance of organic fertilizers
3. Integrated farming
4. Field applications of Vermicompost
5. Scope of biofertilizers

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each answer carries 5 marks

6. Effects of chemical dependent farming on yield and soil health
7. Distribution of soil groups in India
8. Types of fertilizers
9. Nutrient uptake and utilization by plants
10. Crop Rotation
11. Organic fertilizers
12. Nutrient content of Vermicompost
13. Cynobacterial bio fertilizers

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions. Each answer carries 10 marks.

14. Write about the soil formation, composition and types of soils.
 15. Explain about macro, micro nutrients and their functions in plant growth
 16. Describe about organic farming process and effective microorganisms in organic farming
 17. Write about the types of compost
 18. Explain the Vermicomposting material species of earthworms and large scale composting process.
 19. Describe about fungal biofertilizers
-

2 RS 26162

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Zoology – II

Paper II — ANIMAL DIVERSITY – BIOLOGY OF CHORDATES

(W.e.f. 2020-21 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE of the following.

Each question carries 5 marks.

Draw labelled diagrams wherever necessary.

ఈ క్రింది వాటిలో ఏదైనా ఐదు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 5 మార్కులు.

అవసరమైన చోట చిత్రపటములను గీయుము.

1. Placoid scale.
ప్లాకాయిడ్ పాలుసు.
2. Apoda.
ఎపాడా.
3. Urochordata salient features.
యూరోకార్డేటా సాధారణ లక్షణాలు.
4. Ratitae.
రాటిటే.
5. Prototheria.
ప్రోటోథిరియా.
6. Petromyzon.
పెట్రోమైజన్.
7. Reptiles General Characters.
సరీసృపాల సాధారణ లక్షణాలు.
8. General characters of Cephalo chordata.
సెఫలోకార్డేటాల సాధారణ లక్షణాలు.

SECTION B — (5 × 10 = 50 marks)

Answer ALL questions.

Each question carries 10 marks.

Draw labelled diagrams wherever necessary.

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 10 మార్కులు.

అవసరమైన చోట చిత్రపటములను గీయుము.

9. (a) Explain the general characters of chordata.

కార్డేటా సాధారణ లక్షణాలను వ్రాయుము.

Or

- (b) What is Retrogressive metamorphosis? Explain it in life history of Herdmania.

తిరోగమన రూపవిక్రయ అనగానేమి? హెర్డ్మనియా జీవిత చరిత్రలో దీనిని వివరించండి.

10. (a) Explain migration in fishes.

చేపలలో వలసను వివరింపుము.

Or

- (b) Give an account of Respiratory system of scoliodon.

స్కోలియోడాన్ శ్వాస వ్యవస్థను వివరించుము.

11. (a) Write about identification of Poisonous snakes.

విషపూరిత పాములను గుర్తించు విధములను వ్రాయుము.

Or

- (b) Explain pulmonary respiration in Frog, Rana.

కప్ప, రాణాలో పుపున శ్వాస విధానమును వివరించుము.

12. (a) Give an account of flight adaptations in birds.

పక్షులలో ఉజ్జాయిక అనుకూలనాలను వివరించండి.

Or

- (b) Write the general characters of Aves.

పక్షుల సాధారణ లక్షణాలను వివరించండి.

13. (a) Write the general characters of Mammals.

క్షీరదాల సాధారణ లక్షణాలను వ్రాయుము.

Or

- (b) Give an account of Dentition in mammals.

క్షీరదాల దంత విన్యాసం గురించి వివరించండి.

S 26051

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part II – Chemistry

PHYSICAL AND GENERAL CHEMISTRY

(W.e.f. 2015-16 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

ఏవేని ఐదు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 5 మార్కులు.

1. Write notes on plane and Axis of symmetry.
తల మరియు అక్షస్థాపములను గురించి వ్రాయుము.
2. Explain Joule - Thomson effect.
జౌల్-థామ్సన్ ప్రభావాన్ని వివరించండి.
3. Explain structural differences between solids, liquids and Gases.
ఘన, ద్రవ, వాయువుల మధ్య గల నిర్మాణాత్మక భేదాలను వ్రాయుము.
4. Discuss the principle involved in Fractional Distillation.
అంశిక స్వేదనములో ఇమిడి ఉన్న సూత్రాన్ని వివరించండి.
5. Write the applications of adsorption.
అధిశోషణము యొక్క అనువర్తనాలు వ్రాయుము.
6. Explain the postulates of valence bond theory.
వేలన్స్ బంధ సిద్ధాంతములోని ప్రతిపాదనలను వివరించండి.
7. Explain Newman, Saw Horse formula.
న్యూమన్, సాహార్స్ ఫార్ములాను వివరించండి.
8. Explain Azeotropic mixtures with examples.
స్థిర క్వడనాంక మిశ్రమాలను తగిన ఉదాహరణలతో వివరించండి.

SECTION B — (5 × 10 = 50 marks)

Answer ALL questions.

Each question carries 10 marks.

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 10 మార్కులు.

9. (a) Explain the derivation of Bragg's equation.

బ్రాగ్ సమీకరణాన్ని ఉత్పాదించుటను వివరించండి.

- (b) Law of constancy of interfacial angles.

అంతః ఫలక కోణ స్థిరతా నియమం.

Or

10. Explain indexing of planes and structure confirmation of NaCl and KCl Crystal.

NaCl మరియు KCl స్ఫటిక తలాల ఇండెక్సింగ్ మరియు నిర్మాణ నిర్ధారణను వివరించుము.

11. Deduce the values of critical constants in terms of Vander Wall's constants.

వాండర్ వాల్ స్థిరాంకములు వరంగా సందిగ్ధ స్థిరాంకములను ఉత్పాదించుము.

Or

12. What are liquid crystals and write the classification liquid crystals.

ద్రవ స్ఫటికాలు అనగానేమి? ద్రవ స్ఫటికాల వర్గీకరణను గురించి వ్రాయండి.

13. State and Explain Nernst distribution law and write their applications.

నెర్నెస్ట్ వితరణ నియమమును తెల్పి వివరించుము. దాని అనువర్తనాలను వ్రాయుము.

Or

14. Explain critical solution temperature of phenol water system.

ఫినాల్-నీరు వ్యవస్థలో సందిగ్ధ ద్రావణ ఉష్ణోగ్రతను వివరించండి.

15. Explain molecular orbital diagram of CO and NO molecules. Mention the bond order and magnetic nature of them.

CO మరియు NO అణువుల అణు ఆర్బిటాల్ రేఖా చిత్రములను వివరించుము. వాటిలోని బంధ క్రమమును మరియు వాటి అయస్కాంత స్వభావమును తెల్పుము.

Or

16. What is meant by colloid? Explain kinetic, optical and electrical properties of colloids.

కొల్లాయిడ్ అనగానేమి? కొల్లాయిడ్ల యొక్క గమన, దృశ్య మరియు విద్యుత్ ధర్మాలను వివరించుము.

17. (a) Explain E-Z configuration with suitable examples.

E-Z విన్యాసాన్ని ఉదాహరణలతో వివరించండి.

(b) Explain optical isomerism in 2,3- dibromopentane.

2,3-డై బ్రొమాపెంటేన్‌లోని ధ్రువణ సాదృశ్యతను వివరించండి.

Or

18. Define and explain enantiomers and diastereomers with suitable examples.

ఎనాన్సియోమర్లు మరియు డయాస్టీరియోమర్లను నిర్వహించి తగిన ఉదాహరణలతో వివరించండి.

RS 26052

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Chemistry

Paper II — PHYSICAL AND GENERAL CHEMISTRY

(w.e.f. 2016-17 Admitted batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

ఏవేని ఐదు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 5 మార్కులు.

1. Define the following:
క్రింది వాటిని నిర్వచించండి:
(a) Lattice point.
జాలక బిందువు.
(b) Space lattice.
ప్రాదేశిక జాలకము.
(c) Unit cell.
యూనిట్ సెల్.
2. Write about the law of rationality of indices.
సూచికల యుక్తతా నియమమును గురించి వ్రాయండి.
3. Define critical pressure (P_c), critical volume (V_c) and critical temperature (T_c).
సందిగ్ధ పీడనము, సందిగ్ధ ఘనపరిమాణము మరియు సందిగ్ధ ఉష్ణోగ్రతలను నిర్వచించండి.
4. Write about Joule-Thomson effect.
జౌల్-థామ్సన్ ఫలితము గురించి వ్రాయండి.
5. State and explain Raoult's law.
రాల్ట్ నియమమును నిర్వచించి మరియు వివరించండి.
6. What are azeotropes and give examples?
అజియోట్రోప్స్ అనగా నేమి? ఉదాహరణలు వ్రాయండి.
7. Write about Tyndall effect.
టిండాల్ ప్రభావము గురించి వ్రాయండి.

8. Explain about Hybridization.
సంకరీకరణమును గురించి వివరించండి.
9. Define the following:
క్రింది వాటిని నిర్వచించండి.
- (a) Plane polarized light.
సమతల ధృవిత కాంతి.
- (b) Optical rotation.
ధృవణ భ్రమణము.
- (c) Specific rotation.
విశిష్ట భ్రమణము.
10. Explain enantiomers and diastereomers with one example each.
ఎనాన్ఢియోమర్ మరియు డయాస్టీరియోమర్ లను ఒక్కొక్క ఉదాహరణలతో వివరించండి.

SECTION B — (5 × 10 = 50 marks)

Answer ALL questions.

Each question carries 10 marks.

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 10 మార్కులు.

11. Derive Bragg's law.
బ్రాగ్స్ నియమమును ఉత్పాదించుము.

Or

12. What is meant by symmetry? Explain about plane of symmetry, axis of symmetry and center of symmetry.
సౌష్ఠ్యము అనగానేమి? సౌష్ఠ్య తలము, సౌష్ఠ్యక్షము మరియు సౌష్ఠ్య కేంద్రకములను వివరించండి.

13. Explain the behaviour of real gases with the help of Vander Waals equation.
వాండర్ వాల్ సమీకరణమును ఉపయోగించి నిజవాయువుల యొక్క ప్రవర్తనను వివరించండి.

Or

14. What are liquid crystals? Explain their classification and applications.
ధృవ స్పటికాలు అనగానేమి? వాటి వర్గీకరణను మరియు అనువర్తనాలను వ్రాయండి.
15. What is CST? Explain the triethyl amine-water system by using CST diagram.
CST అనగానేమి? CST చిత్రపటాన్ని ఉపయోగించి ట్రిఎథిల్ ఎమైన్-నీరు వ్యవస్థను వివరించండి.

Or

16. Explain the process of fractional distillation.
అంశిక స్వేదన పద్ధతిని వివరించండి.

17. Derive an expression for Langmuir adsorption isotherm.

లాంగ్మ్యూర్ అధిశోషణ సమోష్ణగత సమీకరణమును ఉత్పాదించుము.

Or

18. Draw molecular orbital diagram of N_2 and CO molecules.

N_2 మరియు CO అణువుల అణు ఆర్బిటాల్ చిత్రమును గీయండి.

19. Explain Cahn-Ingold-Prelog rules with examples.

కాన్-ఇంగ్లడ్-ప్రిలాగ్ నియమములను ఉదాహరణలతో వివరించండి.

Or

20. Explain the optical isomerism of Glyceraldehyde and Alanine.

గ్లిసరాల్డిహైడ్ మరియు ఎలనైన్ ల యొక్క దృక్ సాదృశ్యములను వివరించండి.

2 RS 24005

THREE YEAR B.Com. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

General and Comp

Course – 2B : BUSINESS ECONOMICS

(w.e. from 2020 – 21 Admitted Batch)

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE of the following questions.

1. Write the meaning and definition of Business economics.
2. Demand curve.
3. Average variable costs.
4. Perfect competition.
5. Personal Income.
6. Limitations of Macro economics.
7. Differences between market price and Normal Price.
8. Price discrimination.

SECTION B — (5 × 10 = 50 marks)

Answer FIVE questions.

9. (a) Explain the nature and scope of Business economics.

Or

- (b) Write the differences between Micro and Macro economics.

10. (a) What is meant by law of demand? What are the exceptions to law of demand.

Or

(b) What is price elasticity of demand? Explain types of price elasticity of demand.

11. (a) Write the three stages of production function through law of variable proportions.

Or

(b) Explain the Break even analysis.

12. (a) Define market? Explain the classification of markets.

Or

(b) What is Monopoly? Explain the features and types of Monopoly.

13. (a) Write about the concepts of National Income.

Or

(b) What are the methods of measuring National Income?

THREE YEAR B.A./B.Sc./B.Com./BBA. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part III - Life Skills Courses - 4

INFORMATION AND COMMUNICATION TECHNOLOGY

Time : Two hours

Maximum : 50 marks

SECTION A — (4 × 5 = 20 marks)

Answer any FOUR of the following questions.

1. Define Internet and its applications.
2. What is Search Engine? How it is useful.
3. How to Send and Receives information in E-mail.
4. Define Internet Services.
5. Write a note on Web Browser.
6. Define Antivirus Software.
7. Write a note on Digital Signatures.
8. Write a note on Firewalls.

SECTION B — (3 × 10 = 30 marks)

(Answer any THREE of the following questions)

9. Explain the Advantages and Disadvantages of Internet.
 10. What is Social Networking? Explain it.
 11. What is Google Spread Sheet? How it is useful.
 12. Write the steps involved in the creation of E-mail ID.
 13. Explain the advantages and Disadvantages of Antivirus.
 14. Write about National Digital Library of India.
-

SECOND SEMESTER

Part III — Life Skill Course – 6

ELEMENTARY STATISTICS
(W.e.f 2020-21 Admitted Batch)

Time : Two hours

Maximum : 50 marks

(No additional sheet will be supplied)

SECTION A — (4 × 5 = 20 marks)

Answer any FOUR questions.

Each question carries 5 marks.

ఏవేని నాలుగు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 5 మార్కులు.

1. What are the important limitations of Statistics?

సాంఖ్యికశాస్త్రము యొక్క ముఖ్యమైన పరిమితులను తెలియజేయండి.

2. Explain the main parts of a Statistical table.

ఒక పట్టికలోని వివిధ భాగాలను గూర్చి వివరించండి.

3. State the advantages of diagrams.

చిత్ర పటాల ప్రయోజనాలను తెల్పండి.

4. What are the objectives of mode?

బాహుళ్యము యొక్క విధులను గూర్చి వివరింపుము.

5. Discuss the essential of a good questionnaire.

ఒక మంచి ప్రశ్నావళి యొక్క లక్షణాలను గూర్చి తెల్పండి.

6. Define Range and Quartile Deviation.

వ్యాప్తి మరియు చతుర్థాంశ విచలనమును నిర్వచించుము.

7. Write down the properties of correlation.

సహసంబంధ యొక్క ధర్మాలను పేర్కొనుము.

8. Define Linear Regression line.

ప్రతిగమన సరళ రేఖలను వ్రాయండి.

SECTION B — (3 × 10 = 30 marks)

Answer ALL questions.

Each question carries 10 marks.

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 10 మార్కులు.

9. (a) Distinguish between Primary data and Secondary data.

ప్రాథమిక దత్తాంశము మరియు ద్వితీయ దత్తాంశము యొక్క భేదాలను తెల్పుము.

Or

- (b) What is classification? Explain different types of classification.

వర్గీకరణ అనగానేమి? వివిధ వర్గీకరణ పద్ధతులను గూర్చి వివరించండి.

10. (a) Calculate Mean for the following data.

ఈ క్రింది దత్తాంశానికి అంకమధ్యమము కనుగొనుము.

Class intervals (తరగతి అంతరము)	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
Frequency (పొనఃపున్యము)	6	9	14	21	11	5

Or

- (b) Calculate Mode for the following data.

ఈ క్రింది దత్తాంశానికి బాహుళకమును కనుగొనుము.

Monthly wages (నెలసరి వేతనము)	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90
No. of Employees (కార్మికుల సంఖ్య)	21	32	45	65	50	40	20

11. (a) Calculate coefficient of Quartile Deviation from the data.

ఈ క్రింది దత్తాంశానికి చతుర్థాంశము యొక్క గుణకములను కనుగొనుము.

Marks (మార్కులు)	10	20	30	40	50	60	70
No. of persons (వ్యక్తుల సంఖ్య)	4	7	15	27	14	6	2

Or

- (b) Calculate standard deviation and coefficient of variation from the following data.

ఈ క్రింది దత్తాంశానికి క్రమ విచలనము మరియు విచలన గుణకములను కనుగొనుము.

X	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Frequency (పొనఃపున్యము)	5	14	21	35	20	12	4

THREE YEAR B.A./B.Sc./B.Com./B.B.A. (CBCS) DEGREE EXAMINATION, JUNE/JULY 2023.

SECOND SEMESTER

Part III — Skill Development Courses-9

SOCIAL WORK METHODS

(W.e.f. 2020-21 Admitted Batch)

Time : Two hours

Maximum : 50 marks

(No additional sheet will be supplied)

SECTION A — (4 × 5 = 20 marks)

Answer any FOUR questions.

Each question carries 5 marks.

ఏవేని నాలుగు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 5 మార్కులు.

1. Scope of social work.
సంఘ సంక్షేమ కృషి యొక్క పరిధి.
2. Philosophy of social work.
సంఘ సంక్షేమ కృషి తత్వశాస్త్రం.
3. Social Reform.
సామాజిక సంస్కరణము.
4. Importance of social case work.
సాంఘిక వ్యక్తి సేవా పద్ధతి యొక్క ప్రాముఖ్యత.
5. Definition of social group work.
సాంఘిక సమూహ సేవా పద్ధతి యొక్క నిర్వచనం.
6. Characteristics of Community.
సముదాయము యొక్క లక్షణాలు.
7. Nature of fieldwork.
క్షేత్ర అధ్యయనం యొక్క స్వభావము.
8. Counselling.
కౌన్సిలింగ్.

SECTION B — (3 × 10 = 30 marks)

Answer any THREE questions.

Each question carries 10 marks.

ఏవేని మూడు ప్రశ్నలకు సమాధానములు వ్రాయుము.

ప్రతి ప్రశ్నకు 10 మార్కులు.

9. Explain the social welfare services for women and children.

మహిళలు మరియు పిల్లలకు సంబంధించిన సామాజిక సంక్షేమ కార్యక్రమాలను తెలుపండి.

10. Discuss the major social problems in India.

భారతదేశంలో సామాజిక సమస్యలను చర్చించండి.

11. Mention the principles of social case work.

సాంఘిక వ్యక్తి సేవా పద్ధతి యొక్క సూత్రాలను తెలుపండి.

12. Describe the stages in group work.

సమూహ సేవా పద్ధతి యొక్క దశలను వివరించండి.

13. Write an essay on types of fieldwork.

క్షేత్ర అధ్యయనం యొక్క రకాల మీద వ్యాసం వ్రాయండి.