DSC – 2014
Category of Post: School Assistant - Bio-Sciences
Syllabus

Part – I
GENERAL KNOWLEDGE AND CURRENT AFFAIRS (Marks: 10)

Part - II
CHILD DEVELOPMENT AND PEDAGOGY (Marks: 30)

1. DEVELOPMENT OF CHILD
- Development, Growth & Maturation – Concept & Nature
- Principles of development
- Factors influencing Development – Biological, Psychological, Sociological
- Dimensions of Development and their interrelationships – Physical & Motor, Cognitive, Emotional, Social, Moral, Language relating to Infancy, early Childhood, late Child hood, Adolescence.
- Understanding Development – Piaget, Kohlberg, Chomsky, Carl Rogers
- Individual differences – Intra & Inter Individual differences in the areas of Attitudes, Aptitude, Interest, Habits, Intelligence and their Assessment
- Development of Personality – Concept, Factors effecting development of Personality
- Adjustment, Behavioural problems, Mental Health
- Methods and Approaches of Child Development – Observation, Interview, Case study, Experimental, Cross sectional and Longitudinal
- Developmental tasks and Hazards

2. UNDERSTANDING LEARNING
- Concept, Nature of Learning – input – process – outcome
- Factors of Learning – Personal and Environmental
- Approaches to Learning and their applicability–Behaviourism (Skinner, Pavlov, Thorndike), Constructivism (Piaget, Vygotsky), Gestalt(Kohler, Koffka) and Observational (Bandura)
- Dimensions of Learning – Cognitive, Affective and Performance
- Motivation and Sustenance –its role in learning.
- Memory & Forgetting
- Transfer of Learning

3. PEDAGOGICAL CONCERNS
- Teaching and its relationship with learning and learner
- Learners in Contexts: Situating learner in the socio-political and cultural context
- Children from diverse contexts–Children With Special Needs (CWSN), Inclusive Education
- Understanding of pedagogic methods – Enquiry based learning, Project based learning, Survey, Observation and Activity based learning
- Individual and Group learning: Issues and concerns with respect to organizing learning in class room like Study habits, Self learning and Learning to learn skills
- Organizing learning in heterogeneous class room groups – Socio-economic background, Abilities and Interest
- Paradigms of organizing Learning-Teacher centric, Subject centric and Learner centric
- Teaching as Planned activity – Elements of Planning
- Phases of Teaching – Pre active, Interactive and Post active
- General and Subject related skills, competencies required in teaching and attributes of good facilitator
- Learning resources – Self, Home, School, Community, Technology
- Class room Management: Role of student, teacher, Leadership style of teacher, Creation of non-threatening learning environment, Managing behaviour problems, Guidance & Counselling, Punishment and its legal implications, Rights of a child, Time Management.
- Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice

- Understanding teaching & learning in the context of NCF, 2005 & Right To Education Act, 2009.

Part – III
Language – I Content and Methodology) (Marks: 30)
Optional by the Candidate:
Telugu/Urdu/Hindi/Tamil/Kannada/Oriya/Sanskrit

III (a) Language – I Telugu (Content and Methodology) (Marks: 30)

Content

1. **కవులు - రచయితలు - కావ్యాలు - రచనలు**
   పాత్రలు - నేపథ్యం - పూర్వపరాలు - ఇతివృత్తాలు - సందర్భవాక్యాలు - విశేషాంశాలు
2. **ప్రక్రియలు - లక్షణాలు - వివరణలు**
   ఇతిహాసం - పురాణం - ప్రబంధం - శతకం - నవల - కథ - కథానిక - గల్పిక - సంపాదకీయం - వార్తావ్యాఖ్య - లేఖ - వ్యాసం - పీఠిక - జీవితచరిత్ర - స్వీయచరిత్ర - విమర్శ - నాటకం
3. **ఆధునిక సాహిత్యం - ధోరణులు - ఉద్యమాలు - జానపద సాహిత్యం**
   భావకవిత్వం - అభ్యుదయ కవిత్వం - విప్లవ కవిత్వం - దిగంబర కవిత్వం - స్త్రీ వాద కవిత్వం - దళితవాద కవిత్వం - మైనార్టీ వాద కవిత్వం - అనుభూతివాద కవిత్వం
4. **తెలుగు భాషా సాహిత్యాలపై ఇతర భాషా సాహిత్యాల ప్రభావం**
   సంస్కృతం - ఆంగ్లము - ఉర్దూ - పారశీకం - ఒరియా - తమిళం - కన్నడం - మళయాళం -మరాఠి
5. **భాషారూపాలు**
   శాసనభాష - గ్రాంథిక భాష - వ్యవహారిక భాష - మాండలిక భాష - ఆధునిక ప్రామాణిక భాష - ప్రసారమాధ్యమాల భాష
6. **సాహిత్య విమర్శ**
   కవి - కావ్యం - నిర్వచనాలు - కావ్యప్రయోజనం - శైలి - అలంకారాలు
7. **భాషాంశాలు**
   ఉచ్చారణ - ధ్వని - ధ్వన్యుత్పత్తి స్థానాలు - పదం - ప్రాతిపదిక - ప్రత్యయం - భాషాభాగాలు - పదం - అర్థాలు - నానార్థాలు - పర్యాయపదాలు - వ్యుత్పత్యర్థాలు - పదం - పరిణామం - ప్రకృతి వికృతులు - అర్థపరిణామం - తత్సమం - తద్భవం - దేశ్యం - గ్రామ్యం - అన్యదేశ్యం - వాక్యం - భేదాలు - నిర్మాణం - సంధులు - సమాసాలు - ఛందస్సు - వ్యాకరణ పరిభాష
8. **భాష - సమాజం - సంస్కృతి పరస్పర ప్రభావాలు**
9. **అనువాదం - ఆవశ్యకత - రీతులు**
10. పఠనావగాహనం (**Comprehension)**

తెలుగు భాష బోధన పద్ధతులు

1. భాష - వివిధ భావనలు
2. భాషానైపుణ్యాలు
3. ప్రణాళిక రచన - పాఠ్యగ్రంథాలు
4. విద్యాసాంకేతిక శాస్త్రం - సహపాఠ్య కార్యక్రమాలు
5. సాహిత్య ప్రక్రియలు - బోధన పద్ధతులు
6. మూల్యాంకనం పరీక్షలు

III (b) Language – I Urdu (Content and Methodology) (Marks: 30)

Content

I۔ ادیبوں،شاعروں کی سوانح حیات۔ادبی کارنامےاورانکےکرداروں کا جائزہ۔

II۔ اصناف ادب کاتفصیلی مطالعہ۔

(نثر۔مضمون نگاری ۔ داستان افسانہ ۔ ناول۔ ڈرامہ ۔ خطوط نویسی ۔ انشائیہ ۔ خاکہ نگاری ۔ نظم ۔ غزل ۔ مثنوی ۔ رباعی ۔ مرثیہ ۔ قصیدہ ۔ دوہے ۔ ماہیے،قطعات۔

III۔ اردوزبان وادب کی ترقی کے مختلف ادوار۔

IV۔ زبان کی مختلف شکلیں اورحیثیتیں۔

a)مادری زبان b) دوسری زبان c) سرکاری زبان d) قومی زبان e)رابطہ کی زبان، اشاروں کی زبان ، تحریری زبان۔ علامتوں کی زبان۔

V۔ اردوزبان پردیگرزبانوں کےاثرات۔

(پنجابی ۔ہندی ۔ فارسی ۔ عربی ۔ انگریزی وغیرہ)

VI۔ اردو کےاسلیب بیان۔

VII۔ اردوزبان کےعناصر۔

کلمہ، مستقل کلمہ وغیرہ مستقل کلمہ اورانکےاقسام جملہ۔ جملے کےاقسام۔الفاظ۔مفرد ومرکب الفاظ سابقے۔لاحقے واحد جمع۔مونث ومذکر محاورے۔ضرب المثل رموزواوقاف۔صنائع وبدائع۔تلفظ۔مخارج۔اعراب۔

VIII۔ زبان سماج اورکلچر(باہمی اثر)

IX۔ ترجمہ۔تکنیک اورضرورت۔

X۔ ان دیکھامتن (Comprehension)۔

Methodology

I۔ ہندوستان میں اردو۔

a۔ ہندوستانی دستور اور آندھرا پردیش میں اردو کا مقام وموقوف۔

b۔ سہ لسانی فارمولہ کے تحت ثانوی مدارس میں اردو کی تدریس۔

II۔ زبان کی مہارتیں۔ سننا۔ بولنا ۔ پڑھنا، لکھنا، اور سکھانے کے طریقے۔

III۔ اردو کے تدریسی مقاصد۔

a۔ اردو کے تدریسی مقاصد بہ حیثیت زبان اول اور زبان زائد

b۔ بلوم کی تعلیمی مقاصد کی تقسیم

c۔ تدریسی مقاصد اور تصریحات۔

d۔ جزوی (Miscro) تدریسی اور مختلف مہارتیں۔

IV۔ معلم اردو اور تدریس۔

a۔ اردو معلم کی خصوصیات اور تدریسی وسائل۔

b۔ اردو زبان کے تدریس کے طریقے۔ (نثر، نظم، وقواعد)

V۔ تدریس اور اسباق کی منصوبہ بندی۔

a) سالانہ منصوبہ بندی۔ اکائی منصوبہ بندی، سبق کی منصوبہ بندی (نثر، نظم، قواعد، سرسری مطالعہ)

VI۔ نصابی اور ہمہ نصابی مشاغل۔

a۔ اردو نصاب کے تدوین کے اصول۔

b۔ درسی کتاب اور خصوصیات اور تنقیدی جائزہ۔

c۔ ہمہ نصابی وزائد نصابی مشاغل کا انعقاد۔

d۔ تدریسی آلات، اقسام اہمیت وتیاری۔

e۔ اردو زبان کی لیبارٹری۔

III (c) Language – I Hindi (Content and Methodology) (Marks: 30)

Content

1. अवबोध (Comprehension)
    1. अपठित गद्य
    2. अपठित पद्य
2. कवि, काव्य - रचनाकार (लेखक) रचनाएँ
3. अकर्मक - सकर्मक क्रियाएँ
   वाक्य - वाक्य भेद, कर्तृवाच्य, कर्मवाच्य, भाववाच्य, वाक्य और प्रयोग, वाक्य क्रम, घटना क्रम
4. वर्णमाला, शब्द भेद, वचन, लिंग, कारक, काल, विराम चिह्न, संधि, समास, विलोम शब्द, समान अर्थ, भिन्नार्थ, मुहावरे, कहावतें, लोकोक्तियाँ
5. भारतीय काव्य शास्त्र - काव्य लक्षण, रस, छंद, अलंकार

Methodology

(B) भाषा - शिक्षण - विधियाँ

1. भाषा का स्वरूप - भाषा की प्रकृति
   अर्थ - परिभाषा ध्वनि विज्ञान, शब्द, वाक्य विज्ञान, विविध स्तरों पर हिन्दी शिक्षण के लक्ष्य और उद्देश्य प्रथम भाषा के रूप में हिन्दी, द्वितीय भाषा के रूप में हिन्दी त्रिभाषा - सूत्र
2. भाषा - कौशलों का विकास
   सुनना, बोलना, पढना, लिखना
3. हिन्दी अध्यापक और शिक्षण - विधियाँ
   अच्छे शिक्षक और अच्छे शिक्षण की विशेषताएँ
   भाषा - शिक्षण के सामान्य सिद्धांत,
   भाषा - शिक्षण की प्रणालियाँ
   भाषा - शिक्षण की पद्धतियाँ (प्रत्यक्ष, परोक्ष, खेल, माँन्टेसरी, निदर्शित स्वाध्याय, डाल्टन, प्रायोजना, प्रश्नावली, आगमन, निगमन, क्रियात्मक, सूक्ष्म शिक्षण)
4. पाठ्यक्रम और सहगामी क्रियाएँ
   पाठ्यक्रम, पाठ्यपुस्तक, पुस्तकालय, दृश्य-श्रव्य उपकरण (शिक्षण उपकरण), भाषा की दृष्टि से उपयोगी सहगामी क्रियाएँ
5. शिक्षण और योजना
   आवश्यकता, उपयोगिता,
   इकाई योजना, पाठ्य योजना
6. मूल्यांकन
   मूल्यांकन की धारणा, निरंतर समग्र मूल्यांकन, उत्तम परीक्षा की विशेषताएँ, प्रश्न पत्र का निर्माण, उपलब्धि परीक्षा अभिलेख
7. आंध्रप्रदेश में हिंदी शिक्षण में आनेवाली समस्याएँ व उनका निराकरण
8. ध्वनि, वर्ण, शब्द, वाक्य रचना व शुद्धाशुद्ध वर्तनी व वाक्य ज्ञान

III (d) Language – I Tamil (Content and Methodology) (Marks: 30)

Content

I. சிளிவிறிஸிணிபிணிழிஷிமிளிழி (புரிந்துகொள்ளுதல்.)

1. கண்டிராத பத்தி.
2. கண்டிராத செய்யுள்.

II. கவிஞர்கள் , காப்பியங்கள் / படைப்பாளிகள் , படைப்புகள், (உரைநடை, செய்யுள் , கதை , நாடகம்)

III. வினைச்சொல் , பெயர்ச்சொல் ,வாக்கிய வகைகள், தன்வினை , பிறவினை, செய்வினை, செயப்பாட்டுவினை , நேர்க்கூற்று, அயர்கூற்று, வாக்கியம் அமைத்தல் , வாக்கியங்களை வரிசைப்படுத்துதல்.

IV. அகரவரிசை , மூவிடப்பெயர்கள், ஒருமை - பன்மை , காலங்கள், வேற்றுமை , நிறுத்தற்குறிகள், பகுபத உறுப்பிலக்கணம் , அருஞ்சொற்பொருள் , எதிர்ச்சொல், புணர்ச்சி , காரணப்பெயர் , மரபுத்தொடர் கொண்டு வாக்கியம் அமைத்தல்.

Methodology

I. மொழி-தாய்மொழி .- , மும்மொழி போதனை , பேச்சுத் தமிழ்,. இலக்கியத்தமிழ்,

II. தாய்மொழி: - நோக்கம் , குறிக்கோள், மற்றும் சிறப்பு அம்சங்கள்,

III. கற்பிக்கும் முறைகள் :- செய்யுள் , உரைநடை , இலக்கணம், துணைப்பாடம், கட்டுரை ,

IV. கற்பித்தலில் நவீன உத்திகள் : - விளையாட்டு வழிக்கல்வி, மாண்டிச்சோரி ,கிண்டர்கார்டன், டால்டன், செயல்முறைக்கல்வி, நாடக உத்திமுறை,

V. மிகூஷி . திட்டமிடுதல் :- பாடத்திட்டம், வருடாந்திரத்திட்டம், பாடஏடு ., இலக்கண ஏடு, துணைப்பாடம், ஆசிரியர் கை ஏடு, கூஷி. கல்வி சார்ந்த தொழில் நுட்பங்கள்:- பாடத்துடன் தொடர்புடைய இதர செயல்பாடுகள், மொழிசார்ந்த விளையாட்டுகள் , பேச்சுப்போட்டி, கட்டுரை எழுதுதல், கல்விச் சுற்றுலா, சொல்லி எழுதுதல், பத்திரிகை , நூலகக் கல்வி,

VI. கூஷிமி. மதிப்பீடு செய்தல் :- மதிப்பிடுதலின் இன்றியமையாமை , சிறு மற்றும் பெரிய தேர்வுகள் , மதிப்பிடுதலில் கையாளப்படும் பல்வேறு ஆதாரங்கள் , மதிப்பீட்டின் அளவு, மதிப்பீட்டு முறைகள், பிழைகளைத் திருத்தும்முறையில் கற்பித்தல் , பயிற்சி வேலை கொடுத்தல் , நோக்க அடிப்படையில் மதிப்பீடு செய்தல்,

III (e) Language – I Kannada (Content and Methodology) (Marks: 30)

Content

I. Comprehension (ಅವಗಾಹನ)

1. ಅಪರಿಚಿತ ಗದ್ಯ
2. ಅಪರಿಚಿತ ಪದ್ಯ

II. ಕವಿಗಳು, ಕಾವ್ಯಗಳು / ಲೇಖಕರು, ಕೃತಿಗಳು

III. ಆಕರ್ಮಕ, ಸಕರ್ಮಕಕ್ರಿಯಾಪದಗಳು, ವಾಕ್ಯಗಳು,ವಾಕ್ಯಪ್ರಕಾರಗಳು,ಕರ್ತರಿ, ಕರ್ಮಣಿ ವಾಕ್ಯಗಳು, ಪ್ರತ್ಯಕ್ಷ ಪರೋಪಕ್ಷವಾಕ್ಯಗಳು, ವಾಕ್ಯರಚನೆ.

IV. ವರ್ಣಮಾಲೆ, ಪ್ರತ್ಯೆಯಗಳು, ವಚನಗಳು, ಲಿಂಗಗಳು, ವಿಭಕ್ತಿ ಪ್ರತ್ಯೇಯಗಳು, ಕಾಲಗಳು ವಿರಾಮ ಚಿಹ್ನೆಗಳು. ಸಂಧಿಗಳು, ಸಮಾಸಗಳು, ಅಲಂಕಾರಗಳು, ತತ್ಸಮಗಳು, ವಿರುದ್ಧಪದಗಳು, ಪರ್ಯಾಯಪದಗಳು, ನಾನರ್ಥಗಳು ,ಗಾದೆಗಳು, ಲೋಕೋಕ್ತಿಗಳು, ನುಡಿಮುತ್ತುಗಳು, ಸ್ವಂತವಾಕ್ಯಗಳು, ಒಗಟುಗಳು.

Methodology

1. ಭಾಷೆ – ವಿವಿಧ ಭಾವನೆಗಳು : ಭಾಷೆ – ಮಾತ್ರು ಭಾಷೆ , ತ್ರಿಬಾಷ ಸೂತ್ರ, ವ್ಯವಹಾರಿಕ ಭಾಷೆ, ಪ್ರಾಧೇಶಿಕ ಭಾಷೆ, ಪ್ರಮಾಣೀಕ ಭಾಷೆ,
2. ಕನ್ನಡ ಬೋಧನೋದ್ದೇಶಗಳು – ಉದ್ದೇಶಗಳು – ಸ್ಪಷ್ಟೀಕರಣ – ದ್ವಿತೀಯ ಭಾಷೆಯಾಗಿ ಕನ್ನಡ ಬೋಧನೆ . ಭಾಷಾ ನೈಪುಣ್ಯಗಳು – ಶ್ರವಣ – ಭಾಷಣ – ಪಠಣ – ಬರವಣಿಗೆ :ಭಾಷಾ ನೈಪುಣ್ಯಗಳು – ಆಂತರಿಕ ಸಂಭಂದಗಳು.
3. ಬೋಧಾನ ಪದ್ದತಿಗಳು : ಪದ್ಯ , ಗದ್ಯ , ವ್ಯಾಕರಣ, ಪ್ರಂಬಂಧ, ಉಪಪಠ್ಯ ಕಥೆ, ನಾಟಕ , ಸಂಭಾಷಣೆಯಿಂದ ಬೋಧನೆಗಳು.
   ಬೋಧನೆಯ ಹೊಸ ಧೋರಣೆಗಳು : ಕ್ರೀಡೆ , ಮಾಂಟೆಸೊರಿ, ಕಿಂಡರ್ ಗಾರ್ಡನ್, ಪ್ರಾಜೆಕ್ಟು ಡಾಲ್ಟನ್, ಚಟುವಟಿಕೆ ಆಧಾರ, ನಾಟಕೀಕರಣ ಪದ್ದತಿಗಳು,
   ಬೋಧನ ನೈಪುಣ್ಯಗಳು : ಪ್ರಯೋಗಾತ್ಮಕ ಬೋಧನೆ, ಸಮುಹ ಬೋಧನೆ, ಸೂಕ್ಷ್ಮ ಬೋಧನೆ, ಪರಿವೀಕ್ಷಣಾತ್ಮಕ ಅಧ್ಯಯನ.
4. ಶೈಕ್ಷಣಿಕ ಯೋಜನೆ , ವಿಷಯ ಯೋಜನೆ ವಾರ್ಷಿಕ ಯೋಜನೆ, ಭಾಷಎಯ ಸಮಗ್ರ ಯೋಜನೆ – ಪಠ್ಯ ಯೋಜನೆ,ಪಠ್ಯ ಪುಸ್ತಕಗಳು, ಉಪಪಠ್ಯಪುಸ್ತಕ ಶಿಕ್ಷಕದರ್ಶಿನಿ.
5. ಶೈಕ್ಷಣಿಕ ಸಾಂಕೇತಿಕ ಶಾಸ್ತ್ರ : ಬೋದನೋಪಕರಣಗಳು, ಸಹಪಠ್ಯ ಕಾರ್ಯಕ್ರಮಗಳು, ಭಾಷಾಕ್ರೀಡೆಗಳ ರಚನೆ – ಪ್ರಬಂಧ ರಚನೆ ಪತ್ರಿಕಾ ನಿರ್ವಣೆ . ಭಾಷಾ ಪ್ರವಾಸ , ಭಾಷಾ ಸಂಘಗಳು, ಗ್ರಂತಾಲಯಗಳು. ವಾಚನಾಲಯಗಳು, ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು, ಮೂಲಗ್ರಂಥಗಳು.
6. ಮೌಲ್ಯಮಾಪನದ ಅವಶ್ಯಕತೆ, ಚಿಕ್ಕಪರೀಕ್ಷೆಗಳು, ಪರೀಕ್ಷೆ ಮತ್ತು ಚಿಕ್ಕಪರೀಕ್ಷೆಗಳ ವ್ಯತ್ಯಾಸ ಅಂತರ್ಗತ ಮೌಲ್ಯಮಾಪನ , ಲಕ್ಷಾಧಾರ ಮೌಲ್ಯ ಮಾಪನ, ಮೌಲ್ಯಮಾಪಲೋಪಕರಣಗಳು, ಮೌಲ್ಯಮಾಪನ ವಿಧಾನ, ಲಕ್ಷಾಧಾರ ಚಿಕ್ಕಪರೀಕ್ಷೆ ದೋಷಗಳ ವಿಶ್ಲೇಷಣೆ, ದೋಶನಿವಾರಣಾ ಬೋಧನೆ ನಿರ್ದೇಶನಗಳು.

III (f) Language – I Oriya (Content and Methodology) (Marks: 30)

Content

୧. କବି, ଲେଖକ, କାବ୍ୟ, ରଚନା

ଚରିତ୍ର, ଉଦ୍ଦେଶ୍ୟ,ପୂର୍ବାପର ପ୍ରସଙ୍ଗ

ଇତିବୃତ୍ତ, ସନ୍ଦର୍ଭ ବାକ୍ୟ, ବିଶେଷାଂଶ

୨. ପ୍ରକ୍ରିୟା, ଲକ୍ଷଣ, ବିଦରଣ

ଇତିହାସ, ପୁରାଣ,ପ୍ରବନ୍ଧ, କାବ୍ୟ, ଉପନ୍ୟାସ

ପ୍ରସ୍ତାବନା, କଥା, ସାଦକୀୟ, ନିବନ୍ଧ, ପତ୍ରଲେଖନ

ଜୀବନ-ଚରିତ,ଆତ୍ମକଥା, ନାଟକ ,ସମୀକ୍ଷା

୩. ଆଧୁନିକ ସାହିତ୍ୟର ବିଷୟବସ୍ତୁ

ଭାବକବିତା, ଅଭ୍ୟୁଦୟ କବିତା, ସାହିତ୍ୟ କ୍ଷେତ୍ରରେ କ୍ରାନ୍ତି

ସ୍ତ୍ରୀ ବାଦ, ଦଳିତବାଦ, ସଂଖ୍ୟାଲଘୁଗୋଷ୍ଠୀ

୪. ଓଡିଆ ଭାଷା ଉପରେ ଅନ୍ୟ ଭାଷାର ପ୍ରଭାବ-

ସଂସ୍କୃତ, ଇଂରାଜୀ, ବଂଗାଳୀ, ତେଲୁଗୁ, ହିନ୍ଦୀ

୫. ଭାଷାରୂପ-ଶିଳାଲେଖ ଭାଷା, ଗ୍ରାଛିକ,ବ୍ୟବହାରିକ, ପ୍ରାଦେଶିକ, ଆଧୁନିକ, ପ୍ରସାର ମାଧ୍ୟମ ଭାଷା

୬. ସାହିତ୍ୟ ବିମର୍ଶ

କବି, କାବ୍ୟ, ନିର୍ବାଚନ, ପ୍ରୟୋଜନ, ଶୈଳୀ, ଅଳଙ୍କାର

୭. ଭାଷା-ଅଂଶ

ଉଚ୍ଚାରଣ, ଧ୍ୱନି, ଧ୍ୱନି-ଉତ୍ପତ୍ତି, ଶବ୍ଦ, ଅର୍ଥ, ନାନାର୍ଥ ପର୍ଯ୍ୟାୟ ପଦ, ବ୍ୟୁତ୍ପତ୍ତି, ଶବ୍ଦ-ପରିଣାମ,ଅର୍ଥ-ପରିଣାମ ତତ୍ସମ, ତଦ୍ଭବ, ସେଶ, ବାକ୍ୟ, ବାକ୍ୟ ଭେଦ, ନିର୍ମାଣ, ସନ୍ଧି, ସମାସ, ଛନ୍ଦ, ବ୍ୟାକରଣ-ପରିଭାଷା

୮. ଭାଷା, ସମାଜ, ସଂସ୍କୃତି, ପାରସ୍ପରିକ ପ୍ରଭାବ

୯. ଅନୁବାଦ (ଇଂରାଜୀ ରୁ ଓଡିଆ), ଆବଶ୍ୟକତା, ରୀତି

୧୦. ପଠନ-ଅବଗାହନ (Comprehension)

Methodology

୧. ଭାଷା-ବିବିଧ ଭାବନା

୨. ଭାଷା କୌଶଳ

୩. ଯୋଜନା ଓ ପାଠ୍ୟକ୍ରମ

୪. ବିଦ୍ୟା ତନ୍ତ୍ର ଏବଂ ସହପାଠ୍ୟ କାର୍ଯ୍ୟକ୍ରମ

୫. ସାହିତ୍ୟ ପ୍ରକ୍ରିୟା : ବୋଧନ ପଦ୍ଧତି

୬. ମୂଲ୍ୟାଙ୍କନ ଓ ପରୀକ୍ଷା

III (g) Language – I Sanskrit (Content and Methodology) (Marks: 30)

Content

१ - कवय : रचयितारः काव्यम रचनाः

२ - प्रक्रिया - लक्षणः तथा विवरणः इतिहासः पुराणः, खण्डकाव्यम, कथा, निंबध रचना, नाटकम, आत्मकथा, जीवन - चरितम.

३ - आधुनिक - साहित्य परम्परा ,गतिकाव्य आधुनिक कविता, आधुनिक कथा

४ - संस्कृत साहित्यस्य उपरि अन्य भाषाणां प्रभाव :
वैदिक संस्कृते प्राकृत शब्द ,आधुनिक संस्कृत साहित्ये भारतीय भाषाणा प्रभाव :

५ - भाषा - रुपम्
अभिलेख तथा शिलालेख भाषा ,प्रान्थिक भाषा, व्यवहारिक भाषा

६ - साहित्यविमर्श : कवि, काव्य, लक्षणम् प्रयोजनम् शैली अलंकार :

७ - भाषांशाः
उच्चारण ध्वनिः ध्वन्युत्पत्ति, ध्वनि उत्पत्ती स्थानं, शब्दः प्रातिपदिकम् प्रत्यय :
(कृदन्ताः तद्धिताः) कारक तथा विभाकि, अर्थः, नानाथीः पर्यायवाचिनः वाक्यम
वाक्यभेद : सुबन्तः तिडन्तः संन्धयः समासाः छन्दः अलंकारः

८ - भाषा ,समाजःसंस्कृतिः एतयोः
पारस्परिक : प्रभावः

९- अनुवादः-(आङग्ल भाषातः संस्कृत भाषा)
आवश्यकता, रीतिः

१० - पठनावमाहनम (Comprehension)

Methodology

१ - भाषा - विविधताः भावना :

२ - भाषा - नैपुण्यम्

३ - पाठ्यक्रम योजना पाठ्यग्रन्थ :

४ - विद्या सांकेतिक - शास्त्रम् सहपाठ्य कार्यक्रम :

५ - साहित्य - प्रक्रिया : बोधन पध्दतीः

६ - मुल्यांकनम् - परिक्षा च ।

Part – IV
Language – II (English) (Content and Methodology) (Marks: 30)

Content

(1) Parts of Speech (2) Tenses (3) Active voice & Passive voice (4) Prepositions and Articles (5) Degrees of comparison (6) Clauses (7) Verbs – Main Verbs – Auxiliary Verbs (8) Adverbs – Types of Adverbs (9) Conjunction – coordinating conjunction – subordinating conjunction. (10) Direct and Indirect speech (11) Questions and question tags (12) Types of sentences – simple, compound and complex – synthesis of sentences (13) Phrases – uses of phrases. (14) Composition – letter writing – précis writing (15) Comprehension (16) Vocabulary – Antonyms, Synonyms and Spellings

Methodology

1. Aspects of English:- (a) English language – History, nature, importance, principles of English as second language. (b) Problems of teaching / learning English.
2. Objectives of teaching English.
3. Phonetics / Transcription.
4. Development of Language skills:- (a) Listening, Speaking, Reading & Writing (LSRW). (b) Communicative skills – Imparting values through Communication.
5. Approaches, Methods, Techniques of teaching English:- (a) Introduction, definition & types of Approaches, Methods &Techniques of teaching English (b) Remedial teaching.
6. Teaching of structures and vocabulary.
7. Teaching learning materials in English.
8. Lesson Planning.
9. Curriculum & Textbooks – Importance and its need.
10. Evaluation in English language.

Part – V
Mathematics and Science (Content and Methodology) (Marks: 100)

V (a) Biological Science (Content and Methodology) (Marks: 70)

CONTENT

1. Biological Sciences : Its importance and human welfare, Branches of Biology, Biologists, Reputed Biological Institutions in India
2. Living World : Life and its Characteristics, Classification of Living Organisms
3. Microbial World : Virus, Bacteria, Algae, Fungi and Protozoan, Useful and Harmful Micro-organisms
4. Cell & Tissues : Cell - Structural and Functional unit of life. Prokaryotic and Eukaryotic Cell, Structure of Eukaryotic Cell, Cell Organelles, Differences between Plant Cell and Animal Cell, Cell Division – Mitosis and Meiosis, Tissues – Structure, Functions and Types of Plant and Animal tissues.
5. Plant World : Morphology of a Typical Plant – Root, Stem, Leaf, Flower, Inflorescence, Fruit - their Structure, Types and Functions, Parts of a Flower, Modifications of Root, Stem and Leaf, Photosynthesis, Transpiration, Transportation (Ascent of Sap), Respiration, Excretion and Reproduction in Plants, Plant Hormones, Economic importance of Plants, Wild and Cultivated Plants, Agricultural Operations, Crop diseases and Control measures, Improvement in Crop yield, Storage, Preservation and Protection of Food and Plant Products
6. Animal World :
   Organs and Organ Systems including man – Their Structure and Functions Digestive, Respiratory, Circulatory, Excretory, Nervous, Control and Co-ordination and Reproductive, Sense Organs: Structure and Functions of Eye, Ear, Nose, Tongue and Skin. Nutrition in man – Nutrients and their

functions, Balanced Diet, Deficiency diseases, Tropical diseases, Skin diseases, Blindness in man: Causes, Prevention and Control, Health agencies, First Aid – Bites: Insect, Scorpion and Snakes, Fractures, Accidents, Life skills, Wild and Domesticated animals, Economic Importance of Animals, Animal Husbandry – Pisciculture, Sericulture, Poultry, Breeding of Cows and Buffaloes

7. Our Environment : Abiotic and Biotic factors and Ecosystems, Natural Resources – Classification, Judicial use of Renewable, Non-renewable and Alternative Resources, Wild Life - Conservation, Sanctuaries, National Parks in India, Bio-Geochemical Cycles, Pollution – Air, Water, Soil and Sound
   Global Environmental issues – Global Warming (Green House Effect), Acid Rains and Depletion of Ozone layer
8. World of Energy : Work and Energy, Energy transformation, Need for Energy in living organisms, Basal Metabolic Rate (BMR), Energy relations in Ecosystems, Bio-mass and Bio-fuels, Non-Conventional Energy sources
9. Recent Trends in Biology : Hybridization, Genetic Engineering, Gene Bank, Gene Therapy, Tissue Culture and Bio-Technology

Methodology

1. The Nature & Scope of Science: A brief introduction of Oriental and Western Science, Nature of Science, Scope of Science, Substantive and Syntactic Structure of Science.
2. Aims and Values of Teaching Biological Sciences: Aims of teaching Biological Sciences, Values of teaching Biological Sciences.
3. Objectives of Teaching Biological Sciences: Importance of Objectives of Teaching Biological Sciences, Bloom's Taxonomy of Educational Objectives and limitations, Writing Instructional Objectives and Specifications
4. Approaches and Methods of Teaching Biological Sciences: Inductive Approach and Deductive Approach, Methods of Teaching 1. Lecture Method, 2. Lecture cum Demonstration Method, 3. Heuristic Method, 4. Project Method, 5. Experimental Method, 6. Laboratory Method.
5. Planning for effective Instruction: Year Plan, Unit Plan, Lesson Plan – Herbartian and Bloom's Approach, Criteria for Evaluation of Lesson Plan. Self Evaluation and Peer Evaluation, Learning experiences – Characteristics, Classification, Sources and Relevance, Teaching – Learning Material and Resources in Biological Sciences.
6. Science Laboratories: Importance of Practical work in Biological Sciences, Planning Science Laboratory, Procurement, Care and Maintenance of Laboratory Equipment, Maintenance of different Registers, Safety and First aid, Development of Improvised Apparatus
7. Science Curriculum: Principles of Curriculum Construction, Defects in the existing School Science Curriculum, Correlation of Biological Sciences with other School Subjects, Qualities of a good Biological Science Text-book.
8. Biological Science Teacher: Qualities of a good Biological Sciences Teacher, Roles and Responsibilities
9. Non-formal Science Education: Science club, Eco-club, Blue-club, Red-ribbon club, Science fairs – Objectives, levels of organizations, importance, Science Laboratories, Role of NGO`S and State in popularizing science.
10. Evaluation: Concept and process of Measurement and Evaluation, Continuous Comprehensive Evaluation, Tools of Evaluation, Preparation of Scholastic Achievement Test(SAT), Analysis and interpretation of scores.

V(b) Mathematics (Content and Methodology) (Marks : 15)

Content

1. **Number system**: Whole numbers, place value, comparison, fundamental mathematical operations ; Addition, Subtraction, Multiplication and Division, Indian Currency, Prime and Composite numbers, Prime factors, Lowest Common Multiple (LCM) and Greatest Common Multiple (GCM).
2. **Fractions**: Concept of fractions, proper fractions, improper fractions, mixed fractions, decimal fractions, comparison, addition, subtraction, multiplication, division of fractions and decimal fractions. Use of fractions in daily life. Rational Numbers; definition, four fundamental operations; properties of numbers (N, W, Z and Q), Square, Square root, Cube, Cube root, and factorization.
3. **Arithmetic**: Unitary method, Ratio & Proportion, percentages, average, profit – loss.
4. **Geometry**: Rotation, Types of Angles, Construction and measurement of Angles, line, axis, shapes, reflection and symmetry.
5. **Measurements**: Length, Weight, Capacity, Time, Perimeter and Area, their standard units and relation between them.
6. **Data Applications:** Introduction to Data, data presentation, Bar graph.

Methodology

1. Meaning, Nature and Definitions of Mathematics
2. Correlation with other school subjects and daily life.
3. Aims, values and instructional objectives of teaching Mathematics
4. .Child Centered and Activity Based Approaches in Teaching Mathematics
5. Methods of Teaching & Remedial measures in Mathematics
6. . Instructional Material, TLM and Resource Utilization in Mathematics
7. . Curriculum, Text Book & Instructional Planning
8. Evaluation, tools of evaluation and Continuous Comprehensive Evaluation

V (c) Physical Science (Content and Methodology) (Marks : 15)

CONTENT

1. Measurements: Units and Different Systems –C.G.S., M.K.S., S.I.
Triangulation method for measuring long distances, Measurement of Length, Area, Volume, Mass, Density and Time.
Fundamental and Derived units.
Measuring instruments – Scale, Tape, Vernier Calipers, Different types of clocks,
2. Natural Resources – Air, Water: Water pollution, Harnessing of water, States of water, Hardness of water, water pressure
Air pollution, Atmospheric Pressure, Air pressure, Archimedes' principle, Pascal's law, Bernoulli's Principle, Hydrometer, Barometer.
Laws of floatation, Specific gravity, Surface tension, Fluid Mechanics.
3. Our Universe: Constellation - Zodiac, Space travel; Solar system, Satellites, stars, comets; Earth-layers of earth.
4. Natural Phenomenon: Light: Rectilinear propagation of Light, Shadows, transparent and opaque materials; reflection, Laws of reflection, refraction, Reflection at spherical mirrors, refractive index of glass slab
Sound: Sources of sound, Transmission of sound, Sound Pollution, Waves, Kinds of Waves, Wave Propagation, Musical instruments.
Heat: Heat and Temperature, Measurement of Temperature and Thermometer, Change of State due to heat

5. Mechanics - Kinematics, Dynamics: Scalar and Vectors.
Types of Motion; Speed, Velocity, Acceleration, Newton's Laws of Motion, Friction, Momentum, Principals of Conservation, Centre of Gravity, State of Equilibrium.
6. Magnetism and Electricity: Magnetism: Natural Magnets and Artificial Magnets, properties of Magnets, Magnetic Induction, uses of Magnets, Methods of Magnetisation.
Electricity: Circuit Connection-Components, Primary Cells, Charge; Effects of Electric Current (Light, Heat, Magnetic), Primary Cells, Current Flow, Heating and Magnetic Effects of an Electric Current, Series, Parallel connections, Symbols of Electrical Elements, Modern World Instrument.
Information and Communication Technology, Computers.
7. Matter-Its changes: Elements and Compounds, Symbols, Formulae, Chemical Equations

- Action of heat on substances, Physical and Chemical changes, types of chemical changes
- Preparation of Gases (Oxygen, Hydrogen, Carbon- Di-Oxide, Chlorine, Hydrogen Chloride)
- Acids, Basis, Salt.
- Water and its constituents. Hardness of water. Sulphur, Nitrogen, Phosphorous and their compounds. Common salt and its constituents.

8. Laws of Chemical Combination and Chemical Calculations: Laws of chemical combination, Calculations based on chemical equations.

Methodology

1. Definition, Nature, Structure and History of Science
2. Aims, Values and Instructional Objectives of teaching Science
3. Method of Teaching Science
4. Instructional Material in Teaching Science – TLM in Science.
5. Instructional Planning
6. Science Laboratory
7. Science Teacher - Changing Roles
8. Science Curriculum and its transaction
9. Science Textbook.
10. Evaluation – CCE - Designing, Administration, Analysis, Scholastic Achievement Test (SAT)