Q. P. Code:126COM01XXXAEC01T

Reg No | | | | | | | | | | | |

I Semester All Degree Examination, February/March, 2024

Subject: ENVIRONMENTAL STUDIES

Duration of Paper: 1 Hour | Maximum Marks :25

Instructions to candidate:
1) Check for complete printing of 25 questions.
2)The last page of the question paper may be used for rough work.
3) Each question has four multiple choice answer and choose the correct one.
4) Darken the appropriate circle with the ball pen
5) Damaging / over writing using whitener on the OMR sheets are strictly prohibited.
6) No candidates will be allowed to leave the examination Hall till the end of the session and without handling over his/her answer sheet to the invigilator.
7) Candidates should ensure that the invigilator has verified all the entries and that the invigilator has affixed his/her signature in the space provided on the OMR.

1. Largest ecosystem of earth is
   a) Biosphere b) Hydrosphere c) Lithosphere d) Biome
   ಭೂಮಿಯ ಅತಿ ದೊಡ್ಡ ಪರಿಸರ ವ್ಯವಸ್ಥೆ
   a)ಜೀವಗೋಳ b) ಜಲಗೋಳ c) ಲಿಥೋಸ್ಫೀಯರ್ d) ಬಯೋಮಿ
2. World environment day is on
   a) 5th may b) 5th june c) 18th july d) 16th august
   ವಿಶ್ವ ಪರಿಸರ ದಿನ
   a) 5ನೇ ಮೇ b) 5ನೇ ಜೂನ್ c) 18ನೇ ಜುಲೈ d) 16ನೇ ಅಗಸ್ಟ್
3. A large number of inter linked chains in an ecosystem together forms
   a) Carbon cycle b) Food web c) Nitrogen cycle d) Food chain
   ಪರಿಸರದ ವ್ಯವಸ್ಥೆಯಲ್ಲಿ ಹೆಚ್ಚಿನ ಸಂಖ್ಯೆಯ ಅಂತರಸಂಪರ್ಕಿತ ಸರಪಳಿಗಳು ಒಟ್ಟಾಗಿ ಈ ಕೆಳಗಿನವು ರೂಪಗೊಳ್ಳುತ್ತದೆ.
   a) ಕಾರ್ಬನ್ ಚಕ್ರ b) ಆಹಾರ ವೆಬ್ c) ಸಾರಜನಕ ಚಕ್ರ d) ಆಹಾರ ಸರಪಳಿಗಳು
4. Environmental protection act was passed in the year
   a) 1981 b) 1986 c) 1980 d) 1990
   ಪರಿಸರ ಸಂರಕ್ಷಣೆ ಕಾಯ್ದೆಯನ್ನು ಅಂಗೀಕರಿಸಿದ ವರ್ಷ
   a) 1981 b) 1986 c) 1980 d) 1990
5. The second trophic level in a lake is
   a) Fishes b) Benthos c) Phytoplankton d) Zooplanktons
   ಸರೋವರದಲ್ಲಿ ಎರಡನೆಯ ಟ್ರೋಫಿಕ್ ಮಟ್ಟ
   a)ಮೀನುಗಳು b)ಬೆಂತೋಸ್ c) ಫೈಟೋಪ್ಲಾಂಕ್ಟನ್ d)ಝೂ ಪ್ಲಾಂಕ್ಟನ್ಸ್
6. Which of the following is non – renewable source of energy?

a) Solar power b) Hydel power c) Fossil fuels d)Wind power

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ನವೀಕರಿಸಲಾಗದ ಶಕ್ತಿಯ ಮೂಲವಾಗಿದೆ.

a) ಸೌರ ವಿದ್ಯುತ b) ಜಲವಿದ್ಯುತ c) ಪಳೆಯುಳಿಕೆ ಇಂಧನ d) ವಾಯುಶಕ್ತಿ

7. Which of the following is not an artificial ecosystem?

a) Forest b) Reservoir of dam c) Paddy field d) Garden

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದು ಕೃತಕ ಪರಿಸರ ವ್ಯವಸ್ಥೆಯಲ್ಲ

a) ಅರಣ್ಯ b) ಆಣೆಕಟ್ಟಿನ ಜಲಾಶಯ c) ಬತ್ತದ ಗದ್ದೆ d) ಉದ್ಯಾನ

8. The animals which consumes decaying Organic matter is called

a) Detrivore b) Carnivore c) Omnivore d) Herbivore

ಕೊಳೆತ ಪದಾರ್ಥಗಳನ್ನು ತಿನ್ನುವ ಜೀವಿಗಳಿಗೆ ಹೀಗೆ ಕರೆಯುತ್ತಾರೆ

a) ಡೇಟ್ರಿವೋರ್ b) ಕಾರ್ನಿವೋರ್ c) ಓಮ್ನಿವೋರ್ d) ಹರ್ಬಿವೋರ್

9. AQI Stands for

a) Air Qualitative index
b) Air Quantitative index
c) Air Quality index
d) Air quantum index

AQI ಎಂದರೆ

a) ವಾಯು ಗುಣಾತ್ಮಕ ಸೂಚ್ಯಂಕ
b) ವಾಯು ಪರಿಣಾತ್ಮಕ ಸೂಚ್ಯಂಕ
c) ವಾಯು ಗುಣಮಟ್ಟ ಸೂಚ್ಯಂಕ
d) ವಾಯು ಕ್ವಾಂಟಮ್ ಸೂಚ್ಯಂಕ

10. Which of the following is responsible for air pollution

a) Carbon dioxide b) Burning fossil fuels c) Both (a) and (b) d) None of the above

ಕೆಳಗಿನ ಯಾವುವು ವಾಯು ಮಾಲಿನ್ಯಕ್ಕೆ ಕಾರಣವಾಗಿದೆ.

a) ಕಾರ್ಬನ್ ಡೈಆಕ್ಸೈಡ್ b) ಪಳೆಯುಳಕೆ ಇಂಧನ ಸುಡುವುದು c) (a) ಮತ್ತು (b) d) ಯಾವುದು ಅಲ್ಲ

11. Which out of the following are the causes of soil erosion?

a) Unrestricted grazing
b) Over cultivation
c) Deforestation
d) All of the above

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಮಣ್ಣಿನ ಸವೆತಕ್ಕೆ ಕಾರಣಗಳು ಯಾವುವು?

a) ಅನಿಯಂತ್ರಿತ ಮೇಯಿಸುವಿಕೆ
b) ಅತಿಯಾದ ಕೃಷಿ
c) ಅರಣ್ಯನಾಶ
d) ಮೇಲಿನ ಎಲ್ಲವೂ

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47002/47702/48302/A0020

Reg. No. | | | | | | | | |

I Semester B.Sc. (NEP) Degree Examination, March/April- 2024

ENGLISH

Generic English-I (AECC)

(Regular)

Time : 2 Hours **Maximum Marks : 60**

I. Answer the following questions in a word a phrase or a sentence each. (10×1= 10)

1) Which is the commonest of all liquids?
2) What is meant by a provincial or cockney dialect?
3) Who is Tembu?
4) Where do much of the rice is grown?
5) How far is the station from Baldeo's tribal village?
6) Name the translator of vachana 820.
7) Who is a lord of meeting rivers?
8) What is the theme of the poem To India My Native Land?
9) Which road did the poet choose?
10) Who wrote the poem "The Road not Taken"?

II. a) What are the claims of G.B show that no native speaker speaks correct English? **(1×10 = 10)**

(OR)

b) Sketch the character of Baldeo.

III. a) Critically appreciate the poem "To India My Native Land". **(1×10 =10)**

(OR)

b) Bring out the symbolism presented in the poem "The Road Not Taken"

[P.T.O.

IV. Answer any Two of the following questions. **(2×5 = 10)**

1) Draft a copy of your introduction befor a panel of interview members highlighting your strengths.

2) Write a congratulatory note on your friends success in getting selected for the post of IAS.

3) Draft an inquiry dialogue between you and a book seller after you visit a book depot to buy a book.

4) Write a note on introducing your family members to your friends on their visit to your home.

V. Answer any Four of the following sets. **(4×5 =20)**

A) Use the following words as directed. **(5×1 = 5)**

1) Danger as an adjective.

2) Calculation as a verb.

3) Accept as a noun.

4) Bad as an adverb.

5) Sing as a noun.

B) Fill in the blanks with suitable Articles. **(5×1 = 5)**

1) His brother is ———— honest man.

2) ———— sun shines by day.

3) She saw ————apple on the branch.

4) He is ——— university professor.

5) Honesty is ——— best policy.

C) Fill in the blanks with suitable preposition. **(5×1 = 5)**

1) He died——— Cholera.

2) The school opens—— 9:30 am.

3) The essay is written —— EV lucas.

4) She will come—— Sunday.

5) The young ladies went ——— the hall.

D) Convert the following direct questions into indirect questions. (5×1 = 5)

1) Where is market street?

2) Do they work in Canada?

3) What time does the bank open?

4) Is he a teacher?

5) When does the next train arrive?

E) Frame the negative questions. (5×1 = 5)

1) Students are making furniture.

2) The carpenter was making a noise.

3) He is a player.

4) She was in the college.

5) She is knitting a sweater.

F) Frame the questions as directed (5×1 = 5)

1) He works <u>in an office</u>.

(Frame 'WH' question to get underlined words as answer)

2) <u>Valmiki</u> wrote Mahabharata.

(Frame 'WH' question to get underlined words as answer)

3) She lives in Hongkong———?

(Add tag)

4) Yes it was a useful class.

(Frame Yes/No question to get this answer)

5) No he did not attend the function

(Frame Yes/No question to get this answer)

———————

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Reg. No. | | | | | | | | |

I Semester B.Sc. (NEP) Degree Examination, March/April - 2024

HINDI

1) कहानी कुंज 2) हिन्दी भाषा के विविध रुप

Paper-AECC

(Regular)

Time : 2 Hours **Maximum Marks : 60**

I. किन्हीं दस प्रश्नों के उत्तर लिखिए। **(10×1=10)**

1. कहानी कुंज के अंतर्गत ..... कहानियाँ है।

   A) 9 B) 10 C) 8

2. उदय प्रकाश का जन्म कब हुआ?

   A) 1954 B) 1952 C) 1950

3. 'कितने पाकिस्तान' उपन्यास ..... में प्रकाशित हुआ था।

   A) 2000 B) 2001 C) 2002

4. आकाशदीप कहानी में चित्रीत नायिका का नाम ..... है।

   A) चंपा B) राधिका C) अलका

5. हिन्दी दिवस कब मनाया जाता है।

   A) 24 अक्तुबर B) 24 दिसंबर C) 14 सितंबर

6. इन में से कौन छायावादी कवि नहीं है।

   A) जयशंकर प्रसाद B) महादेवी वर्मा C) कुमार अंबुज

7. मोहन राकेश का निधन सन ..... ई.में हुआ।

   A) 1972 B) 1974 C) 1971

8. बाल मनोविज्ञान से संबंधित कहानी ..... है।

   A) साइकिल B) आदमी का बच्चा C) अपरिचित

9. बोलचाल की भाषा ..... होती है।

   A) कठिन B) लचीती C) मानक

P.T.O.

10. राजभाषा हिंदी के स्वरुप का फॉर्मुला किसने पेश किया?

A) लाल बहादुर शास्त्री B) पं.जवाहरलाल नेहरु C) एन्.गोपाल स्वामी अय्यंगार

11. 'दीशी' यह पात्र किस कहानी में चित्रित है?

A) अपरिचित B) डिप्टी कलक्टरी C) खोयी हुई दिशाएँ

12. नाटक के क्षेत्र में प्रथम स्थान पानेवाले नाटककार ..... है।

A) मोहन राकेश B) कमलेश्वर C) अमरकांत

II. किन्हीं तीन की ससंदर्भ व्याख्या कीजिए। (3×5=15)

1. "क्या स्त्री होना पाप है?"
2. देखो तो माली को! कम बख्त के तीन बच्चे पहले है, एक और हो गया।
3. "चलो फिर आज तो हो ही जाये, क्या है इस जिंदगी में।"
4. भाई, समझलो, तुम्हारे करम में नौकरी लिखी ही नहीं।
5. भालू को साइकिल का पागलपन था। वह रात में भी, जब सो जाने,साइकिल चलाना।

III. किन्हीं दो प्रश्नों के उत्तर लिखिए। (2×10=20)

1. 'कफन' कहानी का सारांश अपने शब्दो में लिखिए?
2. 'सलाम' कहानी का उद्देश्य स्पष्ट कीजिए?
3. खोयी हुई दिशाएँ' कहानी में चित्रित समस्याओं के प्रति जानकारी दीजिए?
4. 'अपरिचित' कहानी की विशेषताएँ बताईए?

IV. किन्ही पाँच प्रश्नों के उत्तर लिखिए। (5×2=10)

1. हिन्दी भाषा के विविध रूप संक्षेप में लिखिए।
2. मानक भाषा किसे कहते है?
3. राजभाषा हिन्दी के स्वरूप का फॉर्मूला किसने पेश किया और उसे कब स्वीकारा?
4. राष्ट्रभाषा की परिभाषा बताईए।
5. बोलचाल की भाषा का अर्थ लिखिए।
6. संपर्क भाषा किसे कहते है?
7. राज्यभाषा किसे कहते है?

V. किसी एक प्रश्न का उत्तर लिखिए। (1×5=5)

1. भाषा और बोली में अंतर स्पष्ट बताइए।
2. हिन्दी भाषा के विविध रूपों पर प्रकाश डालिए।

Q.P.Code: 126COM01XXXSEC01T

Reg No | U | 2 | 6 | Y | A | 2 | 3 | S | 0 | 0 | S | 1 |

I Semester All Degree Examination, Feb/March, 2024

Paper: SEC – 01

SUBJECT: Digital Fluency

23 correct

Duration of paper : 1 Hours **Maximum Marks : 25**

Instructions to candidates:
Answer all questions. All questions are MCQS. Each question carries 1 marks. Answers are to be written in OMR Sheet only.

1) Computer is a _____

a. Electronic Machine b. Elector machine c. Both a and b. d. None of the above.

2)Characteristics of computer are

a. High speed b. High storage capacity c. Accuracy d. All of the above

3)ALU is_____

a. Automatic logic unit b. Arithmetic logic unit c. Arithmetic log unit d. None of the above.

4)ROM stands for_____

a. Ransom only memory b. Read only memo c. Read only memory d. All of the above

5)The basic components of second generation computer is

a. Vaccum tubes b. Microprocessor c. Magnetic tape d. Transistor

6) Which of the following is not an input device.

a. Monitor b. Keyboard c. joystick d. Mouse

7) Applications of computers are----------

a. Business b. Banking c. Education d. All of the above.

8) Expansion of IOT is

a. Internet of Think b. Internet of Thanks c. Internet of Things d. All of the above.

9) MS-Word is used for----------

a. Creating work sheets b. Creating documents c. Creating presentation d. None of the above.

10) The short cut key for paste

a. Ctrl+b b. Ctrl+x c. Ctrl +v d. None of the above.

11) A computer program that displays and manipulate data arranged in rows and columns.

a. MS-Excel b. MS-Word c. MS-Power point d. MS-Access.

12) Expansion of email is

a. Electric mail b. Electron Mail c. Electronic mail d. All of the above.

13) Email spam is also known as ----------

a. E scam b. E Spoof c. Junk Mail d. None of the above.

14) What does CC means in E-mail?

a. Carbon copy b. Carbon card c. Carbon computer d. All of the above.

15) Google forms are used for

a. Creating surveys b. Creating & analysis of response c. Both a and b d. None of the above

16) Google drive is used for

a. Uploading files b. uploading folders c. storing of files and folders d. All of the above

17) Google meet is used for

a) Video Conferencing b) Audio Conferencing c) Both a and b d) none of the above.

18. Cookies were originally designed for_____

a) Server side programming b) client side programming

c) Both a and b d) none of the above.

19) Expansion of MOOC

a) Massive online open course b) massive open online course

c) Both a and b d) none of the above

20) Which of the following is not a e-learning plat form.

a) Swayam b) MOOC c) both a and b d) none of the above

21. Which of the following are merits of E- commerce?

a) Fast process b) 24 hours available c) reduced cast price d) all of the above.

22) What is the full form of E-commerce?

a) Electric commerce b) Entertainment commerce

c) Electricity commerce d) Electronic commerce.

23. What is the full form of HTTP?

a) Hypertext test protocol b) hypertext transfer protocol

c) Both a and b d) none of the above.

24. What is firewall?

a) It is network security device b) It filters incoming & outgoing network traffic

c) Both a and b d) none of the above

25) The Function of Hacker is

a) Bad people who violate system with bad intensions. b) Both a and b

c) Bad people who hack system for good purpose d) None of the above

Q. P. Code: 126BSC01LANAEC03T/ 126BCA01LANAEC03T

Reg No | U | 2 | 6 | Y | A | 2 | 3 | S | 0 | 0 | 3 | 1 |

BSc/ BCA I Semester Examination, Feb/March, 2024

Subject: Generic English –I

Paper: AECC

Duration of Paper: 2 Hrs | Maximum Marks :60

Instructions to candidates: 1) Read all questions carefully and answer

2) Write in neat and clean hand writing

I Answer the following questions in a word, a phrase or a sentence each: 10x1=10

1) What is the main cause of soil erosion?
2) What does C.V. Raman mean by 'cheering sight'? rain fed tanks
3) What is meant by a Provincial or Cockney dialect? East End of London
4) What was Baldeo?
5) How far is the station from Baldeo's tribal village? 3 miles
6) Who translated Basavanna's 'vachana 820'?
7) What does Basavanna compare his body to?
8) What is the theme of the poem 'To India my Native Land'?
9) What is the theme of the poem 'The Road Not Taken'?
10) Who is the author of the poem "The Road Not Taken'?

II A) Why does C.V. Raman think that water is the true elixir of life? (DL) (1x10=10)

OR

B) Describe the courage, honour and duty consciousness of Baldeo.

III A) Discuss the theme of the poem 'Vachana 820'. (1x10=10)

OR

B) Critically appreciate the poem 'The Road Not Taken'.

IV Answer any two of the following questions (2x5=10)

1) Introduce yourself before a panel of interview members as an eligible candidate for the post of a high school teacher.
2) Draft five different congratulatory sentences on the success of your friend in getting selected in the national volleyball team.
3) Write instructions on the task of 'Preparing juice' in a paragraph by using the words such as – firstly, after this, next, then, the next step is, subsequently, in the following stage, etc.

4) Draft an inquiry dialogue between you and a book seller on your visit to the bookstall to buy a book.

V Answer any four of the following sets. (4x5=20)

A) Use the following words in sentences as directed : (5x1=05)

1) 'Habit' as an adjective in a sentence.
2) 'Glory 'as a verb in a sentence.
3) 'Sing 'as a noun in a sentence.
4) 'Brave' as an adverb in a sentence.
5) 'Emotion' as an adverb in a sentence.

B) Fill in the blanks with suitable articles. (5x1=05)

1) Iron is .....a..... useful metal .
2) Do you look at .....the..... blue sky.
3) Madhavi is .....an..... attractive girl.
4) My friend is .....a..... European.
5) .....the..... Ganga is a sacred river.

C) Fill in the blanks with suitable prepositions. (5x1=05)

1) I received a letter .....from..... my sister.
2) Tara talked ..... pollution.
3) Delhi is the capital ..... India.
4) I usually write ..... a ball point pen.
5) She looked ..... me.

D) Covert the following Direct questions into Indirect questions. (5x1=05)

1) Is he captain of the team?
2) Where does he play cricket?
3) Was there any sense in his speech?
4) Does he live in Paris?
5) Do they work in America?

E) Frame the negative questions (5 x 1=05)

1) He is fond of Italian food.
2) It would be nice to paint that wall green?
3) He is a good tennis player.
4) She is a noble lady.
5) The girl got what she desired.

F) Frame the questions as directed (5 x 1=05)

1) Mohan went to market. (Frame wh-question so as to get underlined word as answer)
2) He loved Janaki (Frame wh-question so as to get underlined word as answer)
3) I am afraid of snakes (Add question tag)
4) She was careless in driving her car. (Frame Yes/No question)
5) She comes to college by bus. (Frame Yes/No question)

Q. P. Code:126BSC01PHYDSC91T

Reg. No. | U | 2 | 6 | 4 | A | 2 | 3 | 5 | 0 | 0 | 3 | 1 |

B.Sc I Semester Examination, Feb/March, 2024
Paper: Mechanics and properties of Matter
Subject: PHYSICS (DSC)

Duration of paper : 2 Hours | Maximum Marks =60

Instructions to candidates: Calculators are allowed for calculations, write intermediate steps.

Q.No. 1 Answer any Six questions (6x2 =12)

a. State the law of conservation of linear momentum.
b. What is torque? and write an expression for relation between angular momentum, moment of inertia and torque.
c. What the **GPS** and **NaVIC** Stands for?
d. Write an expression for moment of inertia of a hollow cylinder about its own axis.
e. Define Poisson's ratio and write its expression.
f. What is neutral axis?
g. What is the effect of impurities on surface tension of a liquid?
h. What is turbulent flow?

Q.No.2. answer "a and b" OR "c and d".

a. Derive an expression for final velocity in case of elastic collision in one dimension in center frame of reference. (8)

b. A solid bob of mass 0.25 kg is revolving in an orbit of radius 3.2m. it undergo an angular displacement of 46^0 in 8 sec. Calculate angular momentum of the solid bob about the center of orbit. (4)

OR

c. state the principle of rocket. Obtain expression for velocity of a single stage rocket.

d. A mass on a spring oscillate along a vertical line, taking 15s to complete 8 oscillations. (2+6)
calculate the a. Time period
b. The angular frequency. (4)

Q. No. 3 Answer "a and b" OR "c and d"

a. Define binding energy of a satellite and derive expression for it. (2+6)

b. Write a note on weightlessness. (4)

OR

c. Give the theory of flywheel and obtain expression for its moment of inertia. (8)

d. A uniform circular disc of diameter 250 mm Vibrates about horizontal axis perpendicular to its plane and at a distance of 0.06m from the center Calculate the time period of oscillation and the equivalent length of the compound pendulum. (4)

Q.No. 4. Answer "a and b" OR "C and d

a. Derive the relation between elastic constants young's modulus (Y) Bulk modulus (K) and poisons ratio (σ) (8)

b. A Sphere of mass 1200g and dimeter 8cm is suspended from a wire of length 1m and radius 0.8mm If the period of a torsional oscillations of the system is 2,1 seconds. Calculate the modulus of rigidity of the given wire. (4)

OR

c. What is cantilever? and obtain an expression for depression produced at its free loaded end of a light cantilever. (2+6)

d. Derive an expression for bending moment of a beam. (4)

Q . No .5. Answer "a and b" OR "C and d"

a. Discuss pressure difference across curved surface and deduce an expression for excess of pressure inside spherical liquid drop. (8)

b. Calculate depth of water at which an air bubble of radius 0.6mm may remain in equilibrium. Given, surface tension of water = 70 X 10^{-3} N/m Density of water = 10^3 kg/m^3 (4)

OR

c. Define coefficient of viscosity. Derive Poiseuille's equation for the flow of liquid in a tube. (2+6)

d. A plate of metal 0.02m^2 area rests on a layer of castor oil 2.5mm thick, whose coefficient of viscosity is 1.6 N-s/m^2. Calculate the horizontal force required to move the plate with a uniform speed of 4.2cm/s . (4)

Q . P. Code: 126BSC01LANAEC01T

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BSc I Semester Examination, Feb/March, 2024

Paper: Ability Enhancement Compulsory Course -1

Subject: ಕನ್ನಡ ಸಂವರ್ಧನೆ

Duration of Paper: 2 Hrs | Maximum Marks :60

ವಿಸೂ : ಭಾಷೆ ಹಾಗೂ ಬರಹದ ಶುದ್ಧಿಗೆ ಗಮನ ಕೊಡಲಾಗುವುದು .

1. ಕನ್ನಡದ ದೀಪ-ಕವಿತೆ ವೈಶಿಷ್ಟ್ಯತೆಗಳನ್ನು ಚರ್ಚಿಸಿರಿ. 1*10=10

ಅಥವಾ

ಕರ್ನಾಟಕದ ಇತಿಹಾಸ ಹಾಗೂ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಕುರಿತಾಗಿ ವಿವರಿಸಿ .

2. ಮಣ್ಣಿನ ಮರವಣಿಗೆ – ಕವಿತೆಯ ಆಶಯ ವಿವರಿಸಿ . 1*10=10

ಅಥವಾ

ಕೆರೆಯ ಕುರಿತಾಗಿ ಶಿವರಾಮ ಕಾರಂತರ ವಿಚಾರಗಳೇನು ? ನಿರೂಪಿಸಿ .

3. ದೇವರು – ಪೂಜಾರಿ ಕವಿತೆಯ ಸ್ವಾರಸ್ಯ ವಿವರಿಸಿ . 1*10=10

ಅಥವಾ

ಮೂರು ವ್ಯಕ್ತಿಚಿತ್ರಗಳಲ್ಲಿರುವ ಮೂರು ವ್ಯಕ್ತಿತ್ವಗಳನ್ನು ಪರಿಚಯಿಸಿ .

4. ರತ್ನಾಕರವರ್ಣಿಯ ಭರತ-ಬಾಹುಬಲಿ ಸಮರ ಚಿತ್ರಿಸಿರಿ. 1*10=10

ಅಥವಾ

ಸಾಹಿತ್ಯದಲ್ಲಿ ವೈಚಾರಿಕತೆ ವಿಷಯವನ್ನು ಚರ್ಚಿಸಿರಿ .

5. ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ ಬೇಕಾದ ಎರಡಕ್ಕೆ 2*5=10

1) ಬೆನಗಲ್ ರಾಮರಾವ್
2) ಬೀಜ ಮತ್ತು ಭೂಮಿ
3) ಜ್ಯೋತಿಷ್ಯ ಅರ್ಥಪೂರ್ಣವೋ
4) ಬಿತ್ತನೆ ಹಾಡು

6. ಒಂದೇ ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸಿ. 10*1=10

1) ಕನ್ನಡ ಸಂವರ್ಧನೆಯ ಸಂಪಾದಕರು ಯಾರು? S.M ಗಂಗಾಧರಯ್ಯ
2) ಡಾ. ಚಿದಾನಂದಮೂರ್ತಿ ಯಾರು?
3) ಕನ್ನಡ ಸಂವರ್ಧನೆಯ ಲೇಖಕರು ಯಾರು? DR ಗಂಗಾ
4) ವಂದನಾಶಿವ ಅವರು ಬರೆದ ಪ್ರಬಂದ ಯಾವುದು?
5) ಚನ್ನವೀರ ಕಣವಿಯವರ ಯಾವ ಸಮ್ಮೇಳನದ ಸರ್ವಧ್ಯಕ್ಷರಾಗಿದ್ದರು?
6) ನನ್ನೊಳು ನದಿಯೋ ನದಿಯೊಳು ನಾನೋ ಎಂದು ಕೇಳಿದವರಾರು?
7) ಡಾ.ಎಚ್. ನರಸಿಂಹಯ್ಯನವರ ಆತ್ಮಕಥನದ ಹೆಸರೇನು? ಹೆಗ್ಗರಣಿಯ ಕಾಲಲ್ಲಿ.
8) ಕುವೆಂಪು ಅವರ ಆತ್ಮಚರಿತ್ರೆ ಯಾವುದು?
9) ಡಾ. ಎಚ್ಚೆಸ್ಕೆ ಯಾವ ವೃತ್ತಿಯಲ್ಲಿದ್ದರು?
10) ಬಿತ್ತನೆ ಹಾಡು ಹಾಡಿದವರಾರು?

Q . P. Code: 126BSC01LANAEC01T

Reg No

BSc I Semester Examination, Feb/March, 2024

Paper: Ability Enhancement Compulsory Course -1

Subject: ಕನ್ನಡ ಸಂವರ್ಧನೆ

Duration of Paper: 2 Hrs | Maximum Marks :60

ವಿಸೂ : ಭಾಷೆ ಹಾಗೂ ಬರಹದ ಶುದ್ಧಿಗೆ ಗಮನ ಕೊಡಲಾಗುವುದು .

1. ಕನ್ನಡದ ದೀಪ-ಕವಿತೆ ವೈಶಿಷ್ಟ್ಯತೆಗಳನ್ನು ಚರ್ಚಿಸಿರಿ. 1*10=10

ಅಥವಾ

ಕರ್ನಾಟಕದ ಇತಿಹಾಸ ಹಾಗೂ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಕುರಿತಾಗಿ ವಿವರಿಸಿ .

2. ಮಣ್ಣಿನ ಮೆರವಣಿಗೆ – ಕವಿತೆಯ ಆಶಯ ವಿವರಿಸಿ . 1*10=10

ಅಥವಾ

ಕೆರೆಯ ಕುರಿತಾಗಿ ಶಿವರಾಮ ಕಾರಂತರ ವಿಚಾರಗಳೇನು ? ನಿರೂಪಿಸಿ .

3. ದೇವರು – ಪೂಜಾರಿ ಕವಿತೆಯ ಸ್ವಾರಸ್ಯ ವಿವರಿಸಿ . 1*10=10

ಅಥವಾ

ಮೂರು ವ್ಯಕ್ತಿಚಿತ್ರಗಳಲ್ಲಿರುವ ಮೂರು ವ್ಯಕ್ತಿತ್ವಗಳನ್ನು ಪರಿಚಯಿಸಿ .

4. ರತ್ನಾಕರವರ್ಣಿಯ ಭರತ-ಬಾಹುಬಲಿ ಸಮರ ಚಿತ್ರಿಸಿರಿ. 1*10=10

ಅಥವಾ

ಸಾಹಿತ್ಯದಲ್ಲಿ ವೈಚಾರಿಕತೆ ವಿಷಯವನ್ನು ಚರ್ಚಿಸಿರಿ .

5. ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ ಬೇಕಾದ ಎರಡಕ್ಕೆ 2*5=10

1) ಬೆನಗಲ್ ರಾಮರಾವ್
2) ಬೀಜ ಮತ್ತು ಭೂಮಿ
3) ಜ್ಯೋತಿಷ್ಯ ಅರ್ಥಪೂರ್ಣವೋ
4) ಬಿತ್ತನೆ ಹಾಡು

6. ಒಂದೇ ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸಿ. 10*1=10

1) ಕನ್ನಡ ಸಂವರ್ಧನೆಯ ಸಂಪಾದಕರು ಯಾರು?
2) ಡಾ. ಚಿದಾನಂದಮೂರ್ತಿ ಯಾರು?
3) ಕನ್ನಡ ಸಂವರ್ಧನೆಯ ಲೇಖಕರು ಯಾರು?
4) ವಂದನಾಶಿವ ಅವರು ಬರೆದ ಪ್ರಬಂದ ಯಾವುದು?
5) ಚನ್ನವೀರ ಕಣವಿಯವರ ಯಾವ ಸಮ್ಮೇಳನದ ಸರ್ವಧ್ಯಕ್ಷರಾಗಿದ್ದರು?
6) ನನ್ನೊಳು ನದಿಯೋ ನದಿಯೊಳು ನಾನೋ ಎಂದು ಕೇಳಿದವರಾರು?
7) ಡಾ.ಎಚ್. ನರಸಿಂಹಯ್ಯನವರ ಆತ್ಮಕಥನದ ಹೆಸರೇನು?
8) ಕುವೆಂಪು ಅವರ ಆತ್ಮಚರಿತ್ರೆ ಯಾವುದು?
9) ಡಾ. ಎಚ್ಕೆಸ್ಕೆ ಯಾವ ವೃತ್ತಿಯಲ್ಲಿದ್ದರು?
10) ಬಿತ್ತನೆ ಹಾಡು ಹಾಡಿದವರಾರು?

Q. P. Code : 126BSC01MATDSC91T

Reg No: | | | | | | | | | | | |

BSC I Semester Examination, Feb/March, 2024
Subject: Mathematics
Paper: Algebra-I and Calculus-I

Duration of Paper: 02 hours Max. Marks:60

Instruction to the Candidate:

1.Answer any six Questions from Question 1.

2.Answer any three questions 2,3,4& 5

Q. No.1 Answer any six of the following Questions. **(2x6=12)**

a. Define echelon form of a matrix.

b. Find the rank of a matrix $\begin{bmatrix} 2 & 3 & 4 \\ 3 & 1 & 2 \\ -1 & 2 & 2 \end{bmatrix}$

c. Prove that $\emptyset = \theta/2$, for the cardioid $r=a(1-\cos\theta)$

d. Define polar sub tangent and polar sub-normal

e. State Cauchy's mean value theorem.

f. Evaluate $\lim_{x\to 0}\left(\frac{x-\sin x}{x^3}\right)$

g. Find the n^{th} derivative $\log(ax+b)$.

h. If $y= \sin 2x$ then find y_n.

Q. No 2. Answer any three of the following. **(3x4=12)**

a. Verify Cayley –Hamilton theorem for matrix $\begin{bmatrix} 2 & -1 & 2 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$ and find A^{-1}

b. Prove that the rank of a matrix is unaltered by the addition of a constant multiple of

a. the elements of a row to the corresponding elements of another row.

c. c. Find the rank of the matrix $\begin{bmatrix} 1 & 2 & 1 & 2 \\ 1 & 3 & 2 & 2 \\ 2 & 4 & 3 & 4 \\ 3 & 7 & 4 & 6 \end{bmatrix}$ by reducing it to echelon form.

d. Show that $2x+6y=-11$; $6x+20y-6z=-3$; $6y-18z=-1$ are inconsistent.

Q.No.3. Answer any three of the following. **(3x4=12)**

a. Describe the angle between the radius vector and the tangent for the curve r=f(θ).

b. Prove that the curves r=a(1+sinθ),r=a(1-sinθ) are cuts orthogonally.

c. Write usual notations prove that $\frac{1}{p2} = \frac{1}{r2} + \frac{1}{r4}(\frac{dr}{d\theta})^2$

d. Find the radius of curvature in Cartesian form.

Q.No. 4. Answer any three of the following **(3x4=12)**

a. If f(x) is continuous in [a,b] then show that it attains In bonds al least once in that interval.

b. Let $\lim_{x\to a} f(x) = l, \lim_{x\to a} g(x) = m$ prove that $\lim_{x\to a}[f(x) + g(x)] = l + m.$

c. State and prove Rolle's theorem.

d. Evaluate: $\lim_{x\to 0} \frac{e^x - e^{-x} - 2x}{x^2 \tan x}$

Q. N O. 5. Answer any three of the following **(3x4=12)**

a. If y = e^{ax} cos (bx+c) them find y_n.

b. Find the n^{th} derivative of sinx sin 2x. sin 3x.

c. Prove the Leibnitz's theorem for the net derivative of a Product of two functions.

d. If y = a cos (logx) +b sin (logx) then prove that
$x^2 y_{n+2} + (2n+1)x y_{n+1} + (n^2+1)y_n = 0$

Q. P. Code:126BSC01CHEDSC91T

Reg No | | | | | | | | | | | |

B.Sc. I Semester Examination, Feb/March, 2024
Subject: CHEMESTRY (DSC)

Duration of Paper: 2 Hrs. **Maximum Marks :60**

Instruction to the Candidate:

1. All questions are compulsory.
2. Draw a neat labeled diagram and give equations wherever necessary.

1) Answer any six of the following. **(6x2=12)**

a) What is accuracy? Express it as percentage relative error.
b) What volume of 11N concentrated HCL is required to prepare 500CC of decinormal acid solution?
c) State Heisenberg's uncertainty principle.
d) What is orbital? Mention shape of S–orbital.
e) What are electrophiles? Give two examples.
f) What is electrometric effect?
g) What is Root mean square velocity?
h) Define collision diameter.

2) Answer any three of the following **(3x4=12)**

a) Write about determinate errors and their minimization
b) What is titration curve? Explain the titration curve of strong acid and weak base
c) Explain the theory of metal ion indicators taking Erichrome Black T used in EDTA titrations
d) Write about the following
   i) Redox indicators
   ii) Precipitation titrations

3) Answer any three of the following **(3x4=12)**

a) Derive an expression for radius of electron in hydrogen atom
b) Write the significance of quantum numbers
c) state and explain the following
   i) Aufbau principle
   ii) Hund's rule of maximum multiplicity
d) What is screening effect? Write the trend of ionization energy in groups and periods of S and P-block elements

4) Answer any three of the following **(3x4=12)**

a) Explain the Inductive effect with examples

b) Write about the following with examples

i) Elimination reactions.

ii) Rearrangement reactions.

c) Write the following

i) Homolytic fission of bond and relative intermediate formed in this

ii) Huckel's rule of aromaticity.

d) Explain the following with example

i) Wartz reaction.

ii) Wartz- Fittig reaction

5. **Answer any three of the following.** **(3x4=12)**

a) Derive the relation between critical constants and Vander Waal's constants

b) Write about the following

i) Most probable velocity.

ii) Mean free Path

c) Derive the modified distribution law when the solute undergoes dissociation in one of the solvents

d) 1000 cc of aqueous solution contains 5 gm of substance and 1000 CC of ether is to be used in the extraction. Calculate the amount of Substance left unextracted after 5 extractions using 200 CC of solvent each time. (Distribution Coefficient of the Substance between ether and water is 3)

Q. P. Code:126BSC01CHEDSC91T

Reg No | | | | | | | | | | | |

B.Sc. I Semester Examination, Feb/March, 2024

Subject: CHEMESTRY (DSC)

Duration of Paper: 2 Hrs. **Maximum Marks :60**

Instruction to the Candidate:

1. All questions are compulsory.
2. Draw a neat labeled diagram and give equations wherever necessary.

1) Answer any six of the following. **(6x2=12)**

a) What is accuracy? Express it as percentage relative error.
b) What volume of 11N concentrated HCL is required to prepare 500CC of decinormal acid solution?
c) State Heisenberg's uncertainty principle.
d) What is orbital? Mention shape of S–orbital.
e) What are electrophiles? Give two examples.
f) What is electrometric effect?
g) What is Root mean square velocity?
h) Define collision diameter.

2) Answer any three of the following **(3x4=12)**

a) Write about determinate errors and their minimization
b) What is titration curve? Explain the titration curve of strong acid and weak base
c) Explain the theory of metal ion indicators taking Erichrome Black T used in EDTA titrations
d) Write about the following
   i) Redox indicators
   ii) Precipitation titrations

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b) Write the significance of quantum numbers
c) state and explain the following
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d) What is screening effect? Write the trend of ionization energy in groups and periods of S and P-block elements

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b) Write about the following with examples

i) Elimination reactions.

ii) Rearrangement reactions.

c) Write the following

i) Homolytic fission of bond and relative intermediate formed in this

ii) Huckel's rule of aromaticity.

d) Explain the following with example

i) Wartz reaction.

ii) Wartz- Fittig reaction

5. Answer any three of the following. **(3x4=12)**

a) Derive the relation between critical constants and Vander Waal's constants

b) Write about the following

i) Most probable velocity.

ii) Mean free Path

c) Derive the modified distribution law when the solute undergoes dissociation in one of the solvents

d) 1000 cc of aqueous solution contains 5 gm of substance and 1000 CC of ether is to be used in the extraction. Calculate the amount of Substance left unextracted after 5 extractions using 200 CC of solvent each time. (Distribution Coefficient of the Substance between ether and water is 3)