DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

CORE COURSE- SEMESTER 1

CH1CRT01 – GENERAL AND ANALYTICAL CHEMISTRY

1.Describe the various scientific methods involved in the evolution of modern chemistry (CO1-Remember)10 marks

2. Describe the principles behind the various quantitative chemical analysis like gravimetric analysis and volumetric analysis (CO1-Remember)10 marks

3. Classify elements based on their chemical properties (CO2-Understand) 10marks

4. Classify elements based on their outer electronic configuration (CO2-Understand) 10marks

5. Compare adsorption chromatography and Partition chromatography.(CO3-Evaluate)5marks

6. Compare gas chromatography and HPLC. (CO3-Evaluate) 5marks

7. Analyse the various types of systematic errors. (CO4-Analyse)5 marks

8. Analyse the various types of random errors (CO4-Analyse) 5 marks

Department of English

Deva Matha College, Kuravilangad

Question Paper For Course Outcome Measurement

BA English Language and Literature

EN1CCT01 Fine Tune Your English

Semester 1

1.A. He pulled the string tight. B. She is a nice girl.(Identify the kind of adjectives) 2 Marks (CO 1)

2. Here comes the C.I and a few policemen (Correct the sentence)) 2 Marks (CO 1)

3.How are indefinite articles different from the definite article? 5 marks (CO 2)

4. Frame five exclamatory questions5 marks (CO 2)

Fill in the blanks using the appropriate form of the verbs given.

5.He ----------the room and ----------down in the chair(cross, sit) 2 marks (CO 3)

6. A bus ------him down as he ------the road. (knock, cross) 2 marks (CO 3)

7.Write an essay stating your views on the stray dog menace. 15 marks (CO 4)

8. Write a letter to a friend describing a recent exciting cricket match in which your side won. 15 marks (CO 4)

9. Frame a telephone conversation between you and a friend of yours about your career interests. 5 marks (CO 5)

10. Frame a conversation between you and your class teacher about conducting a study tour. 5 marks (CO 5)

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. ENGLISH LANGUAGE AND LITEARATURE

EN1CCT02 – PEARLS FROM THE DEEP

SEMESTER 1

1. Discuss the animal imagery in 'Jaguar' 5 marks (CO 3)
2. Analyze the way in which the Franco-Prussian war affects Paris? 5 marks (CO 3)
3. Describe what the knight sees in his dreams at the Elfin Grot?5 marks (CO 1)
4. Discuss the speciality of the pier-glass?5 marks (CO 4)
5. Analyze the loneliness felt by Mrs. Wright.5 marks (CO 2)
6. Explain the significance of the bird in the play 'Trifles'?5 marks (CO 1)
7. Describe the appearance of the refugee children in Achebe's poem?5 marks (CO 4)
8. Explain how the old man sees the sea unlike other rich fishermen?5 marks (CO 2)

DEVAMATHA COLLEGE KURAVILANGAD

ADDITIONAL LANGUAGE HINDI I B.A/BSC SEM-I

PROSE &ONE ACT PLAYS CODE : HN 1CCTO1

OBE OUTCOME MEASUREMENT TIME : 1 ½ HRS MARKS :50

Answer the following questions. All questions are compulsory .

CO1:

1. कफनचोर का बेटा कहानी का कथानक Rया ह ?

2. बह्ू क fवदा एकांक म fचf त सम#याए Rया-Rया ह ?

CO2 :

3.आईय हम व*> दवता क आराधना कर fकसक रचना ह ? fकस fवधा क रचना ह

4.रामकमार वमा क fकह्क दो एकांकया क नाम fलfखए।

CO3:

5. सामाजिक एकांक क 9प म सती एकांक क ;संगकता Rया ह?

6..कथाकार क 9प म =ीमती उषाबाला का पfरचय कजिए।

CO4:

7..भय क भावना cयाRतCव पर fकस ;कार क ;भाव डालत ह ?

8..व*1 क प , र*ा करना मानव का कतc य ह। Rया ?

CO5:

9..जान स Fयार एकांक का सार अपन शIद। म fलfखए।

10.जब म फल हआ एकाक का सदश Rया ह ?

(Each carries 5 marks) 10x5=50 mks

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DEPARTMENT OF MALAYALAM, DEVAMATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASURMENT

B.A. MALAYALAM

ML1CCTO1- കഥാസാഹിത്യം.

SEMESTER I

Time: 3 Hours Max.marks:120

1.മലയാളത്തിലെ ആദ്യകാലകഥകൾ പരിചയപ്പെടുത്തുക.10 Marks (CO1)

2.മലയാളത്തിലെ ആദ്യകാലകഥകളുടെ സവിശേഷതകൾ വിവരിക്കുക.10 Marks (CO1)

3.ഇന്ദുലേഖ എന്ന നോവലിനെ പരിചയപ്പെടുത്തുക.10 Marks (CO2)

4.കഥ നോവൽ എന്നീ രണ്ട് സാഹിത്യരൂപങ്ങൾ തമ്മിലുള്ള വ്യതാസങ്ങൾ വിശദീകരിക്കുക.10 Marks (CO2)

5.പ്രധാന പരിസ്ഥിതികഥകൾ പരിചയപ്പെടുത്തുക.15 Marks (CO3)

6.സാറാ ജോസഫ്, സിതാര എസ്, ഇന്ദുമേനോൻ എന്നിവരുടെ കഥകളിലെ സാമ്യവ്യത്യാസങ്ങൾ വിവരിക്കുക.15 Marks (CO3)

7.ആടുജീവിതം എന്ന നോവലിലെ ആശയം വിശദീകരിക്കുക. 10 Marks (CO4)

8.തിരുത്ത് എന്ന കഥയുടെ പ്രത്യേകതകൾ വിവരിക്കുക. 10 Marks (CO4)

9.`വിശപ്പിന്റെ അടയാളപ്പെടുത്തലാണ് ബിരിയാണി' ഈ അഭിപ്രായത്തോട് നിങ്ങൾ യോജിക്കുന്നുണ്ടോ? സ്വാഭിപ്രായം ക്രോഡീകരിക്കുക. 15 Marks (CO5)

10മോദസ്ഥിരനായങ്ങ് വസിപ്പൂ മലപോലെ എന്ന കഥയുടെ സാമൂഹികപ്രാധാന്യം വിശദീകരിക്കുക. 15 Marks (CO5)

DEVA MATHA COLLEGE KURAVILANGAD

B Sc. Degree C.B.C.S Examination,

Semester-I: Complementary Course for Physics and Chemistry

MM1CMT01 : Partial Differentiation, Matrices, Trigonometry & Numerical Methods

Time: 1.5 hrs Maximum marks: 40

Part A

Each question carries 5 marks

1. Illustrate the Mixed Derivative theorem with an example **(Apply CO1)**
2. Determine f_{xx} and f_{yy} for the function $f(x,y) = x^{y}$. **(Apply CO1)**
3. Solve the system of equations $x_1 - 2x_2 + 3x_3 = 0,\ 2x_1 + 5x_2 + 6x_3 = 0$ **(Apply CO2)**
4. Give an illustration for Cayley Hamilton theorem. **(Apply CO2)**
5. Establish the $\cos cos\,(4\theta) = cos^{4}\theta - 6cos^{2}\theta sin^{2}\theta + sin^{4}\theta$ **(Apply CO3)**
6. Compute the sum of infinite series

   $1 + c\cos cos\,(\alpha) + c^{2}\cos cos\,(2\alpha) + c^{3}\cos cos\,(3\alpha) + \ldots$ **(Apply CO3)**
7. Explain Netwon- Raphson method. **(Apply CO4)**
8. Use bisection method to obtain a root correct to the three decimal places of the equation $x^{3} - 5x + 3 = 0$. **(Apply CO4)**

(5x8=40)

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Chemistry (2019 Admissions)

PH1CMT02- PROPERTIES OF MATTER AND THERMODYNAMICS

SEMESTER:1

1. Compare the three different moduli of elasticity and write down the relations connecting them- 5 Marks (CO1)
2. A rope of length 5m and diameter 8mm fixed at one end is loaded at the other by 100N. What will be the elongation of the rope if Y= 2x 10^{11}N/m^2- 5 Marks (CO1)
3. Obtain expression for excess pressure inside a liquid drop-10 Marks (CO2)
4. Illustrate with examples the instances of surface tension that we see around us (CO2)
5. Discuss Poisseuille's method for determining the viscosity of liquid by constant pressure method- 10 Marks (CO3)
6. Calculate the terminal velocity of a glass ball of radius 1mm and density 2000 kg/m^3 , falling through oil column of viscosity 0.27 Ns/m^2. Density of oil is 800 kg/m^3(CO3)
7. State and explain zeroeth law of thermodynamics- 5 Marks(CO4)
8. Derive Maxwell's thermodynamical relations and give its physical significance- 10 Marks (CO4)

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Chemistry (2019 Admissions)

PH2CMT02- MECHANICS AND SUPERCONDUCTIVITY

SEMESTER:2

1. Differentiate between Centripetal and Centrifugal force- 5 Marks (CO1)
2. Illustrate how acceleration due to gravity at a place can be measured using a compound pendulum- 10 Marks (CO1)
3. State and prove parallel and perpendicular axis theorem-10 Marks (CO2)
4. Explain how an ice skater uses the principle of conservation of angular momentum to control his motion- 5 Marks (CO2)
5. State the conditions for an oscillatory motion to be simple harmonic- 5 Marks(CO3)
6. Obtain the differential equation for a plane progressive wave- 5 Marks(CO3)
7. Plot velocity versus time graphs of a simple harmonic oscillator- 5 Marks (CO4)
8. Setup differential equation for a forced harmonic oscillator and obtain the condition for resonance – 10 Marks(CO4)
9. A train moving with a velocity of 72 km/hr sounds its whistle which has a frequency of 550 H. Find the frequency heard by a stationary observer as the train approaches him. Given the velocity of sound is 340m/s- 5 Marks (CO5)
10. A plane progressive wave is given by $y = 0.30 \sin(40t - 0.30x)$. find the wavelength and the phase difference between two points at x=2 m and at x = 7.232 m. also find the maximum particle velocity. 5 Marks (CO5)
11. Explain Josephson junction in superconductivity- 5 Marks(CO6)
12. Explain BCS theory of superconductivity- 10 Marks (CO6)

DEPARTMENT OF CHEMISTRY , DEVAMATHACOLLEGE,KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE: CH2CMT02 - BASIC ORGANIC CHEMISTRY

SEMESTER: II

1. Explain different types of structural isomerism. (CO1: Understand) 10 marks
2. Write a note on reaction intermediates and reaction types (CO1: Understand) 10 marks
3. Explain geometrical isomerism with examples. (CO2: Understand) 10 marks
4. Discuss the conformational isomerism in butane (CO2: Understand) 10 marks
5. Write mechanisms of S_N1 and S_N2 reactions of alkyl halide. (CO3: Understand)10 marks
6. Explain mesomerism and hyperconjugation (CO3: Understand)10 marks
7. Why do we need biopolymers? (CO4: Analyze)10 marks
8. Compare and contrast LDPE and HDPE. (CO4: Analyze)10 marks

DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

SEMESTER I AND II

CORE CHEMISTRY PRACTICALS -CH2CRP01 - VOLUMETRIC ANALYSIS

1. Describe the various fundamental concepts in volumetric analysis (CO1-remember) 10 marks

2, Describe the meaning of titrant, titrand, titration, titre value, end point and equivalence point (CO1-remember) 10 marks

3. Describe the method of selection of indicators in volumetric analysis (CO2-understand) 5marks

4. How the end point is detected using indicators in acid alkali titration (CO2-understand) 5marks

5. Explain the various types of volumetric techniques (CO3-understand) 10marks

6. Explain the procedure for the estimation of ferrous ion is volumetrically(CO3- understand) 10 marks

7. Estimate the mass of hydrochloric acid in the whole of the given solution. You are supplied with approximately 0.1M sodium hydroxide and pure crystals of oxalic acid (CO4-Analyze) 5marks

8. Calculate the mass of oxalic acid required to prepare 100 ml of 0.1 m solution(CO4-Analyze) 5marks

DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

SEMESTER II

CH2CRT02 – THEORETICAL AND INORGANIC CHEMISTRY

1. Describe the properties of S-block elements (CO1-Remember) 10marks

2. Describe the properties of P Block elements (CO1-Remember) 10marks

3. What are the applications of d-block elements (CO2-Remember) 10 marks

4. What are the applications of f-block elements (CO2-Remember) 10 marks

5. Explain the formation of Ionic bond and Covalent bond with suitable examples (C03-Apply) 5marks

6. How the concept of hybridization helps in explaining the bonding in methane and ethane (C03-Apply) 5marks

7. Explain the Rutherford atom models (CO4-Evaluate)5 marks

8. Summarize the different model of atoms (CO4-Evaluate) 10 marks

Department of English (SF)

Deva Matha College, Kuravilangad

Question Paper For Course Outcome Measurement

BA Triple Main

EN2CCT03 Issues That Matter

Semester 2

1.Which three important areas of the value of biodiversity has Leakey identified? 2 Marks (CO 1)

2. What did the mysterious bird reveal to Hagar? 2 Marks (CO 1)

3.What distinction does the narrator draw between 'war' and 'hostility'? 5 marks (CO 2)

4. How has the tree grown to its present status? 5 marks (CO 2)

5.Narrate the experience of Zitkala-sa on her trip to her home in the reservation. 10 marks (CO 3)

6. Elaborate on 'the old prison' as a metaphor for human suffering 10 marks (CO 3)

7.Describe how Sentila become a pot maker against the expectations of her mother. 10 marks (CO 3)

8. Bring out the satire in the story 'The Censors' by drawing examples from the situations in the story. 10 marks (CO 3)

9. Evaluate the irony in the line 'haven't I always reported the truth?....Burn me' 5 marks (CO 4)

10. Evaluate the grandfather's attitude when Bapu Patil humiliated him. 5 marks (CO 4)

DEVA MATHA COLLEGE KURAVILANGAD

DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. ENGLISH LANGUAGE AND LITEARATURE

EN2CCT04 – SAVOURING THE CLASSICS

SEMESTER 2

1. Explain the peculiarities of John Vincent Moon? 5 marks (CO 3)

2.Discuss the animal symbolism in Canto I of *Inferno*.5 marks(CO 3)

3. Analyze the title of the poem 'On His Blindness'?5 marks (CO 2)

4. Discuss the surgeon's thoughts about the lady in the black veil?5 marks(CO 4)

5.Comment on the friendship between Bingley and Darcy.5 marks(CO 2)

6. Briefly describe the two adventures of Don Quixote.5 marks (CO 1)

7. Discuss Telemachus' reunion with his father. 5 marks (CO 4)

8. "Lovely is youth, but quickly is it flown." Explain. 5 marks(CO 1)

DEVAMATHA COLLEGE KURAVILANGAD

ADDITIONAL LANGUAGE HINDI I B.A/BSC SEM-II

SHORT STORIES & NOVEL CODE : HN 2CCTO2

OBE OUTCOME MEASUREMENT TIME : 1 ½ HRS MARKS :50

Answer the following questions. All questions are compulsory .

CO1-

1.कहानी लिखते समय किन-किन तत्वों पर ध्यान देना है ?

2.कहानी और उपन्यास के मध्य अंतर स्पष्ट करें ?

CO2-

3. ; प्रेमचंद का परिचय कीजिए

CO 3- 4.कथाकार के रूप में कमार अदबज का परिचय कीजिए।

5.छठी का दिन कहानी का सार लिखिए।

6.अंतिम सोपान उपन्यास का कथानक किस बिंदु पर आधारित है ?

CO4-

7.मौनी मौसी का परिचय कीजिए।

8.बालक हामिद का चरित्र गत विशेषताएं लिखिए।

CO5-

9.अंतिम सोपान उपन्यास में चित्रित समस्याएं स्पष्ट करें ?

10.मां रसोई में रहती है, कहानी में नारी-जीवन के सच में संवेदनाओं को अभिव्यक्ति मिलती है। विचार कीजिए।

(Each carries 5 marks) 10x5=50 mks

DEVA MATHA COLLEGE KURAVILANGAD

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DEVA MATHA COLLEGE
KURAVILANGAD

DEPARTMENT OF MALAYALAM, DEVAMATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASURMENT

B.A. MALAYALAM

ML2CCTO2- കവിത

SEMESTER II

Time: 3 Hours **Max.marks:120**

1.മലയാളകവിതയുടെ വികാസപരിണാമങ്ങൾ വിവരിക്കുക.10 Marks (CO1)

2.കുരുക്ഷേത്രം എന്ന കവിതയ്ക്ക് മലയാളകവിതയിലുള്ള പ്രാധാന്യം വിവരിക്കുക.10 Marks (CO1)

3.ആധുനിക കവിതകളുടെ സവിശേഷതകൾ വിശദീകരിക്കുക.15 Marks (CO2)

4.മലയാളത്തിലെ ഉത്തരാധുനിക പ്രസ്ഥാനത്തെ സ്വാധീനിച്ച സാഹചര്യങ്ങൾ വ്യക്തമാക്കുക.15 Marks (CO2)

5.മലയാള കവിതയിലെ ലിംഗസമത്വംഎന്ന വിഷയത്തിൽ ഉപന്യസിക്കുക. 10 Marks (CO3)

6.ഉത്തരാധുനിക കവിതകൾ പെണ്ണനുഭവങ്ങളെ എപ്രകാരം അടയാളപ്പെടുത്തുന്നുവെന്ന് വിവരിക്കുക.10 Marks (CO3)

7.കാലഘട്ടത്തിന്റെ പൊതുപ്രവണതകൾ കവിതകളിൽ പ്രകടമാകുന്നതെപ്രകാരമെന്ന് വിവരിക്കുക. 10 Marks (CO4)

8.സമകാലിക സാഹചര്യങ്ങൾ കവിതകൾക്ക് വിഷയമാകാറുണ്ടോ ?വിമർശനാത്മകമായി വിലയിരുത്തുക.10 Marks (CO4)

9.വൈലോപ്പിള്ളിയുടെ മാമ്പഴം എന്ന കവിതയുടെ സവിശേഷതകൾ വിവരിക്കുക.15 Marks (CO5)

10.കവിതയും സമൂഹവും എന്ന വിഷയം വിലയിരുത്തുക.15 Marks (CO5)


DEVA MATHA COLLEGE
KURAVILANGAD

DEVA MATHA COLLEGE KURAVILANGAD

CBCS Degree Examination

Semester II **Complementary Course- Mathematics (for Physics and Chemistry)**

MM2CMT01: Integral Calculus and Differential Equations

Time: 1.5 hrs Maximum marks: 40

Each question carries **5** marks.

1. Sketch the region bounded the curve $y = x^2 + 1$ and straight line $y = -x + 3$. Find the volume of the solid generated by revolving about x-axis. **(Apply CO1)**
2. Determine the solid of revolution obtained by rotating the region bounded between the curve $x^2 + y^2 = a^2$, x axis and lines $x = -a$ and $x = a$ if axis of revolution is x-axis. **(Apply CO1)**
3. Evaluate the integral $\int_0^1 \int_2^3 x + 2y + 4 \, dy \, dx$. **(Analyse CO2)**
4. Evaluate the integral $\int_0^1 \int_2^3 \int_1^2 xyz \, dz \, dy \, dx$. **(Analyse CO2)**
5. Solve the exact differential equation $\left(x^2 - 4xy - 2y^2\right) dx + \left(y^2 - 4xy - 2x^2\right) dy = 0$**(Understand CO3)**
6. Give examples for variable linear and Bernoulli's differential equations. **(Understand CO3)**
7. Solve the PDE $\left(\frac{y^2}{x}\right) p + xzq = y^2$. **(Create CO4)**
8. Develop a partial differential equation by eliminating the constants a and b from the $z = (x + a)(x + b)$. **(Create CO4)**

(5x8=40)

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Physics (2019 Admissions)

PH2CMP01-Practicals

1. Explain the procedure to use Vernier Calipers/Screwguage, tracelling microscope and spectrometer to measure the given specimen – 5 Marks (CO1)
2. Systematically tabulate the outcome of the measurement- 5 Marks (CO1)
3. Find the least count of the device used – 5 Marks (CO2)
4. Use the measurement to calculate the given quantity -5 Marks (CO2)
5. Calculate quantities such as acceleration due to gravity/ Moment of Inertia/ Modulus of elasticity- 5 Marks (CO3)
6. Repeat the experiment compare the results- 5 Marks (CO3)
7. Compare the results with theoretical or standard values – 5 Marks (CO4)
8. Estimate the error in final result obtained- 5 Marks (CO4)

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Physics (2019 Admissions)

PH2CMP02-Practicals

1. Explain the procedure to measure parameters such as Modulus of elasticity/ dispersive power etc– 5 Marks (CO1)
2. Systematically tabulate the outcome of the measurement- 5 Marks (CO1)
3. Construct electronic/electrical circuits using connection diagrams – 5 Marks (CO2)
4. Measure the output -5 Marks (CO2)
5. Repeat the experiment for different experimental conditions- 5 Marks (CO3)
6. Graphically or otherwise analyze the variation in the results under different conditions- 5 Marks (CO3)
7. Compare the results with theoretical or standard values – 5 Marks (CO4)
8. Estimate the error in final result obtained- 5 Marks (CO4)

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

COURSE CODE &NAME OF THE COURSE: CH3CRT03 - ORGANIC CHEMISTRY – I
SEMESTER: III

1. Explain the various methods for the preparation of benzene. (Remember CO1)
   10 marks
2. Discuss the preparative methods of anthracene &Naphthalene. (Remember CO1)
   10 marks
3. Explain briefly about electron displacement effects. (Understand CO2)
   10 marks
4. Discuss briefly about reaction intermediates. (Understand CO2)
   10 marks
5. Explain nucleophilic substitution reactions. (Understand CO3)
   10 marks
6. Discuss briefly about Elimination reactions.(Understand CO3)
   10marks
7. Write a note on stereoisomerism. (Understand CO4)
   10 marks
8. What are geometrical isomers? Write a note on its nomenclature. (Understand CO4)
   10 marks

DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
B.A. ENGLISH LANGUAGE AND LITEARATURE
EN3CCT05– LITERATURE AND/AS IDENTITY
SEMESTER 3

1. Analyze the theme of the novel *The Dark Holds No Terrors?* 5 marks (CO 3)
2. Describe the power of language according to Amy Tan? 5 marks(CO 3)
3. Analyze the poem 'At the Lahore Karhai' in the light of geographical and cultural dislocation. 5 marks (CO 4)
4. Discuss the specialty of Mussoorie as described by the protagonist? 5 marks (CO 4)
5. Describe the entry of Goddess Kali. 5 marks (CO 2)
6. Comment on why Dadima reprimands the narrator for troubling a peacock that landed on their terrace? 5 marks (CO 1)
7. Explain what the author learns about motherhood from others? 5 marks (CO 2)
8. List the signs that foretold the black moments of Kamur? 5 marks (CO 1)

DEVAMATHA COLLEGE KURAVILANGAD

ADDITIONAL LANGUAGE HINDI II B.A/BSC SEM-III

POETRY,GRAMMAR & TRANSLATION CODE : HN 3CCTO3

OBE OUTCOME MEASUREMENT TIME : 1 ½ HRS MARKS :50

Answer the following questions. All questions are compulsory .

CO1-

1. हिंदी में मिश्रित छंद का आविष्कार किसने किया था ? उनका परिचय लिखिए। / नाम

2. आधुनिक युग के मुख्य नाम से प्रसिद्ध कवयित्री कौन है ? उनका परिचय कीजिए।

CO2-

3. सबसे श्रेष्ठ कविता समकालीन जीवन में चित्रित अन्याय, अत्याचार आदि का सबूत पेश करती है। विचार कीजिए।

4. जंगल के उजाड़ में चित्रित समस्या क्या है ?

CO3-

5. कारक क्या है ? सोदाहरण स्पष्ट कीजिए।

6. सर्वनाम के परिभाषा लिखकर उसके भेद बताइए।

CO4-

7. शुद्ध कीजिए- राम ने पुस्तक पढ़ा ।

लड़का ने पढ़ा।

8. # लिंग शिक्षा के पहचान के कुछ महत्व नियम बताईए।

CO5-

9.अनुवाद कीजिए- अर्ज़ी हिंदी

10. अनुवाद कीजिए- हिंदी - अर्ज़ी

(Each carries 5 marks) 10x5=50 mks

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DEVA MATHA COLLEGE
KURAVILANGAD

DEPARTMENT OF MALAYALAM

DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A MALAYALAM

M L 3 CCT03 – ദൃശ്യകലാസാഹിത്യം

SEMESTER III

Time : 3 Hours

Max.Marks : 150

1.ഭാരതത്തിന്റെ നാടകപാരമ്പര്യത്തെക്കുറിച്ച് വിവരിക്കുക 20 Marks (CO 1)

2. മലയാളത്തിലെ സംസ്കൃതനാടകവിവർത്തനങ്ങളെക്കുറിച്ച് എഴുതുക 10 Marks (CO 1)

3.നളചരിതം ആട്ടക്കഥയുടെ ഭാഷാപരവും സാഹിത്യപരവുമായ സവിശേഷതകൾ ചർച്ച ചെയ്യുക. 20 Marks (CO 2)

4.കല്യാണസൌഗന്ധകത്തെ മുൻനിർത്തി കുഞ്ചൻനമ്പ്യാരുടെ തുള്ളലുകളുടെ സവിശേഷതകൾ ചർച്ച ചെയ്യുക. 20 Marks (CO 2)

5.മലയാളനാടകവേദിക്ക് സി.ജെ തോമസ് നൽകിയ സംഭാവനകൾ വിവരിക്കുക 10 Marks (CO 3)

6.നിലനിൽക്കുന്ന നിയമവ്യവസ്ഥയെ ക്രൈം നാടകം പ്രശ്നവത്കരിക്കുന്നുണ്ടോയെന്ന് വിലയിരുത്തുക 10 Marks (CO 3)

7. അൻവറിന്റെ ഉസ്താദ് ഹോട്ടലിൽ രുചിയുടെ രാഷ്ട്രീയമുണ്ടോയെന്ന് പരിശോധിക്കുക. 10 Marks (CO 4)

8. മലയാളത്തിലെ സ്വതന്ത്രസിനിമകളെക്കുറിച്ച് ചർച്ച ചെയ്യുക. 20 Marks (CO 4)

9. വടക്കൻപാട്ടുസിനിമകളുടെവസാംസ്കാരികരാഷ്ട്രീയംനെ തിരിച്ചറിയുക 10 Marks (CO 5)

10. മലയാളത്തിലെ പഴശ്ശിരാജസിനിമകളെക്കുറിച്ച് വിവരിക്കുക 20 Marks (CO 5)

DEVA MATHA COLLEGE KURAVILANGAD

CBCS Degree Examination

Semester III-Complementary Course for B. Sc Physics and Chemistry
MM3CMT01 :Vector Calculus, Analytic Geometry and Abstract Algebra

Time: 1.5hrs Maximum marks: 50

PART A

Each question carries 5 marks.

1. Find the curve's unit tangent vector $\bar{r}(t) = 2\cos cos\, t\ i + 2\sin sin\, t\ j + \sqrt{5}\, t\, k$. **(Understand CO1)**
2. Explain tangential and normal components of acceleration. **(Understand CO1)**
3. Evaluate $\int_C (x + y)ds$ where C is the straight line segment x = t, y = 1- t, z = 0 joining (0,1,1) to (1,0,1) **(Evaluate CO2)**
4. Prove that $y\,dx + x\,dy$ is exact and evaluate the integral. **(Evaluate CO2)**
5. Differentiate between Normal and Tangential form of Green's theorem. **(Apply CO3)**
6. Integrate $G(x, y, z) = x^2$ over the cone $z = x^2 + y^2, 0 \leq z \leq 1$. **(Apply CO3)**
7. Find the polar representation of the point (2,3,). **(Apply CO4)**
8. Find the polar co-ordinates corresponding to the Cartesian co-ordinate (-3,$\sqrt{3}$). **(Apply CO4)**
9. Give examples for abelian group, non abelian group and cyclic group. **(Understand CO5)**
10. Explain group homomorphism with an example. **(Understand CO5)**

(5x10=50)

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Chemistry (2019 Admissions)

PH3CMT02- Modern Physics & Magnetism

SEMESTER:3

9. Discuss the LS and JJ coupling schemes- 5 Marks (CO1)
10. Discuss the success of Bohr atom model in explaining hydrogen spectra- 10 Marks (CO1)
11. Define packing fraction- 5 Marks (CO2)
12. State and explain the salient features of nuclear forces- 10 Marks (CO2)
13. If half life of a radioactive element is 1 year, calculate its mean life- 5 Marks (CO3)
14. Illustrate how the age of fossils be determined by radio carbon dating?- 5 Marks(CO3)
15. Elaborate the concept of matter waves- 5 Marks(CO4)
16. The lowest energy of particle trapped in a box is 40 eV. What are the possible three higher energy of the particle- 5 Marks (CO4)
17. Obtain the time dependent Schrodinger equation for a free particle – 10 Marks(CO4)
18. Find the probability of finding aparticle between 0.4L and 0.6L in a one dimensional box of length L- 5 Marks (CO5)
19. Differentiate between Raman and Raleigh scattering- 5 Marks (CO6)
20. Explain Raman effect on the basis of quantum theory- 10 Marks(CO6)
21. Explain the formation of a p-n junction- 5 Marks (CO7)
22. Sketch and explain the characteristic of a Zener diode- 5Marks (CO7)
23. Explain how a transistor acts as an amplifier- 5 Marks (CO8)
24. What is the necessity of biasing in a transistor – 5 Marks(CO8)
25. Classify the magnetic materials on the basis of their succeptibility- 5 Marks(CO9)
26. Discuss linear and non linear magnetic materials – 5 Marks (CO9)

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

COURSE CODE &NAME OF THE COURSE: CH4CRP02 - QUALITATIVE ORGANIC ANALYSIS

SEMESTER: IV

1. Write down the reactions shown by Carboxylic acid functional group.((Understand CO1) 10 marks
2. Write the confirmatory tests for aldehydes and ketones. (Understand CO1) 10 marks
3. Prepare a solid derivative of a Dicarboxylic acid. (Understand CO2) 10 marks
4. Prepare a solid derivative of an amine (Understand CO2) 10 marks
5. Determine the boiling point using simple distillation. (Understand CO3) 10 Marks
6. Determine the melting point using melting point apparatus. (Understand CO3) 10 marks
7. Analyze qualitatively the given organic compound. (Analyze CO4)10 marks
8. Analyze qualitatively the given organic compound. (Analyze CO4)10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

COURSE CODE &NAME OF THE COURSE: CH4CRT04 - ORGANIC CHEMISTRY –II

SEMESTER: IV

1. Describe the mechanism involved in Fries rearrangement & Riemer-Tiemann reaction. (Remember CO1) 10 marks
2. What is Pinacole-Pinacolone rearrangement? Explain its mechanism. (Remember CO1) 10 marks
3. Illustrate the mechanism involved in a) Cannizaros reaction b)Benzoin condensation(Understand CO2) 10 marks
4. Illustrate the mechanism involved in a) Aldol condensation b)Mannich reaction (Understand CO2) 10 marks
5. Discuss briefly about the reactions of alcohols. (Understand CO3) 10 marks
6. Discuss briefly about the preparation and reactions of ethers. (Understand CO3) 10 marks
7. Explain the preparation, properties and reactions of Anthranilic acid. (Analyze CO4) 10 marks
8. Discuss briefly about the reactions of cinnamic acid.(Analyze CO4) 10 marks

DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOMEMEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

SEMESTER VI

CH6CRT12– PHYSICAL CHEMISTRY – IV

1. Write a note on the various symmetry elements (CO1-Remember) 5 marks

2. Identify the symmetry elements in water molecule. (CO1-Remember) 5 marks

3. Determine the point group of NH_3, H_2O, and BF_3 (CO2-Remember) 10 marks

4. Write a note on point groups (CO2-Remember) 5 marks

5. What are the differences between electrolytic cell and galvanic cell (CO3-Understand)5 marks

6. Explain the terms corrosion, corrosion monitoring and prevention (CO3- Understand)5 marks

7. Explain the applications of Kohlrauschs law (CO4-Understand) 5 marks

8. Explain how we can determine the molar conductivity at infinite dilution in the case of weak electrolytes (CO4- Understand)-10 marks

DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
B.A. ENGLISH LANGUAGE AND LITEARATURE
EN4CCT06– ILLUMINATIONS

SEMESTER 4

1. Describe the reactions of Roucolle and Pole after their release 5 marks (CO 3)
2. Explain how the nightingale makes a red rose from the withered rose tree 5 marks (CO 3)
3. Bring out the words of suffering in the poem *Invictus.* 5 marks (CO 4)
4. Describe what happens to the boat when it loses its rudder. 5 marks (CO 4)
5. Comment on whether a child and professional reader approach the text in the same way. 5 marks (CO 2)
6. List Keller's plans for the third day. 5 marks (CO 1)
7. Compare the reaction of the rich and poor when the Sterling Exchange falls? 5 marks (CO 2)
8. Explain what Rowling means by quixotic or paradoxical choice 5 marks (CO 1)
9. Analyze the advice given by Luz Long to Owens when he failed in the trials. 5 marks (CO 5)
10. Comment on Gibran's opinion about a divided house. 5 marks (CO 5)

DEVAMATHA COLLEGE KURAVILANGAD

ADDITIONAL LANGUAGE HINDI II B.A/BSC SEM-IV

DRAMA & LONG POEM CODE : HN 4CCTO4

OBE OUTCOME MEASUREMENT TIME : 1 ½ HRS MARKS :50

Answer the following questions. All questions are compulsory .

CO1-

1.नाटक कलिए आव9यक तCव Rया-Rया ह ?

2.लdबी कवित स Rया तCपय ह ?

CO2-

3. कव अ ेनशख र का प@रचय क जिए।

4. उतनी दर मत Iयहन बाबा, fकसक रचना ह ? fकस fवधा क रचना ह?

CO3-

5.शहशाह क नेद कवता म fचf त सम#या Rया ह ?

6.ढाबा कवता fकस बद्ध पर आधा@रत ह ?

CO4-

7.fवश का च@र fच ण क जिए

8. धमप द क `ितकार cयRतCव पर ;काश डालिए।

CO5

9. अ ेनशख र क कवता आतक का जीवत अनभ व हायह कथन कहा तक सा थक ह?

10.शहशाह कवता का सदेश Rया ह ?

(Each carries 5 marks) 10x5=50 mks

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DEVA MATHA COLLEGE
KURAVILANGAD

DEVA MATHA COLLEGE KURAVILANGAD

CBCS Degree Examination

Semester IV Complementary Course: Mathematics for B. Sc. Physics & Chemistry

MM4CMT01 :Fourier Series, Laplace Transform and Complex Analysis

Time: 1.5 hrs Maximum marks: 40

PART A

Each question carries 5 marks.

1. Differentiate between the Fourier series of even and odd functions. **(Understand CO1)**
2. Express the function $5x^3 + 7x^2 + 2$ in terms of the Legendre polynomials. **(Understand CO1)**
3. Find the Laplace Transform of e^{ax} **(Analyse CO2)**
4. Solve the differential equation $y'' + 4y = 0,\ y(0) = 2,\ y'(0) = -8$ using Laplace Tranforms **(Analyse CO2)**
5. Discuss the analyticity of the function $f(z) = \bar{z}$. **(Understand CO3)**
6. Show that $f(z) = z^2 + 1$ satifies Cauchy Riemann equations **(Understand CO3)**
7. Evaluate $\int_C z^2 dz$ where C is the unit circle centred at the origin. **(Analyse CO4)**
8. Compare the values of the $\int_C \frac{z}{z-2}\, dz$ where (i) C:$|z| = 1$ (ii) C: $|z| = 3$**(Analyse CO4)**

DEPARTMENT OF PHYSICS, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc Chemistry (2019 Admissions)

PH4CMT01- Optics& Solid state Physics

SEMESTER.4

27. Explain why two independent sources cannot be coherent- 5 Marks (CO1)
28. State and explain the principle of superposition- 5 Marks (CO1)
29. Obtain expression for fringe width in a Youngs double slit experiment- 5 Marks (CO2)
30. A combination of convex lens and plane glass is illuminated by monochromatic light.The diameter of 10th dark ring is measured in reflected light and is found to be 4.8mm. Find he wavelength of light used. The radius of curvature of lens is 90 Cm. 5 Marks (CO2)
31. Distinguish between Fresnel and Fraunhofer diffraction- 5 Marks (CO3)
32. Sketch the diffraction pattern from a single slit- 5 Marks(CO3)
33. Describe a method by which polarization can be achieved- 5 Marks(CO4)
34. Explain the uses of polaroids- 5 Marks (CO4)
35. Give the theory of production of elliptically polarized light- 10 Marks (CO5)
36. Distinguish between an elliptically and circularly polarized light using a quarter wave plate – 5 Marks(CO5)
37. Distinguish between stimulated and spontaneous emission - 5 Marks (CO6)
38. Derive expression for Einsteins coefficients- 10 Marks (CO6)
39. State Gauss's law in dielectrics- 5 Marks(CO7)
40. Differntiate between polar and non polar dielectrics- 5 Marks (CO7)
41. Describe the seven crystal systems- 5 Marks (CO8)
42. The distance between adjacent planes of a crystal is 0.3 nm. Find the smallest angle of Bragg scattering for 0.03 nm X-rays – 5 Marks(CO8)

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

CH5CRT05 - ENVIRONMENT, ECOLOGY AND HUMAN RIGHTS
SEMESTER V

1. Describe briefly about various natural resources.(CO1-Remember)10 marks
2. Write a note on the over-exploitation of natural resources.(CO1-Remember)10 marks
3. Describe briefly about the scope of environmental studies for a sustainable development.(CO2-Understand)10 marks
4. Describe briefly about the scope of environmental studies for a sustainable development.(CO2-Understand)10 marks
5. Describe briefly about the transformation of pesticides.(CO3-Understand)10 marks
6. Discuss briefly about the risk assessment of chemicals.(CO3-Understand)10 marksC
7. Explain universality of human rights.(CO4-Analyse)10 marks
8. Discuss the importance of different human right commissions.(CO4-Analyse)10 marks
9. Explain Malthusian catastrophe. (CO5-Analyse)10 marks
10. Discuss briefly about the various environmental movements in india. (CO5-Analyse)10 marks
11. Explain air pollution. (CO6-Analyse)10 marks
12. Explain the possible measures to manage water crisis. (CO6-Analyse)10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

CH5CRT06 - ORGANIC CHEMISTRY – III
SEMESTER V

1. Discuss briefly about the preparation of amines. (CO1-Remember)10 marks
2. Describe the synthetic applications of diazonium salts.(CO1-Remember)10 marks
3. What are Antibiotics?Discuss its therapeutic uses. (CO2-Understand)10 marks
4. Write a note on anti-cancer drugs. (CO2-Understand) 10 marks
5. Discuss briefly about the chemical properties of furan. (CO3-Understand) 10 marks.
6. Write a note on six membered heterocycles. (CO3-Understand) 10 marks.
7. Write the mechanism of cationic polymerisation.(CO4-Evaluate)10 marks
8. Write a note on Zeigler-Natta Polymerisation.(CO4-Evaluate)10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME : B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE : CH5CRT07 – PHYSICAL CHEMISTRY I

SEMESTER : V

1. Discuss the various gas laws. (CO1 : Remember) 10 marks
2. Explain the property of viscosity in liquids. (CO2 : Remember) 10 marks
3. Write a note on crystal defects. (CO3 : Understand) 10 marks
4. Explain the structure of sodium chloride using powder diffraction method. (CO4 : Understand) 10 marks
5. How BET equation is used to determine the surface area of a solid? (CO5 : Analyse) 10 marks
6. How colloids can be coagulated? (CO6 : Analyse) 10 marks
7. Derive Bragg's law (CO7 : Analyse) 10 marks
8. Write a note on Bragg's X-ray diffractometer method. (CO8 : Analyse) 10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE: CH5CRT08 – PHYSICAL CHEMISTRY – II

SEMESTER: V

1. What are the postulates of quantum mechanics? (CO1: Understand) 10 marks
2. Derive the expression for particle in 1-D box. (CO1: Understand) 10 marks
3. What are quantum numbers? Explain different types of quantum numbers. (CO2: Understand) 10 marks
4. What are the different types of operators in quantum mechanics? (CO2: Understand) 10 marks
5. Explain molecular orbital theory based on quantum mechanics. (CO3: Analyse) 10 marks
6. What are the differences between σ and π molecular orbitals? (CO3: Analyse) 10 marks
7. Write a note on quantum theory of Raman effect. (CO4: Analyse) 10 marks
8. Explain spin-spin splitting in NMR. (CO4: Analyse) 10 marks

DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOMEMEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

CH5OPT – OPEN COURSE-CHEMISTRY IN EVERYDAY LIFE

SEMESTER V

1. Describe in detail the various food flavours used in food industry (**CO1-**Remember) 10 marks

2. What are the different artificial sweeteners used in food industry. (**CO1**Remember) 10 marks

3.Discuss the classification of fertilizers. Give examples of each type**.** (**CO2-U**nderstand) 10 marks

4. What are biofertilizers? Discuss the benefits of using biofertilizers. (**CO2-U**nderstand) 10 marks

5. Differentiate the following with suitable examples (a) antipyretics and analgesics (b) tranquilizers and antidepressants (**CO3-**Analyze) 10 marks

6. Analyse the menace of drug addiction and drug abuse. Suggest control measures for drug abuse and addiction. (**CO3-**Analyze) 10 marks

7. Outline the toxic effects of cosmetics. (**CO4-**Apply) 10 marks

8. What are soaps? How are they classified? Outline the parameters to check the quality of soaps. (**CO4-**Apply) 10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE: CH6CBT03 & SOIL AND AGRICULTURAL CHEMISTRY

SEMESTER: VI

1. Describe the soil formation process (CO1: Understand) 10 marks
2. Discuss different physical properties of soil (CO1: Understand) 10 marks
3. Write a micro and macro nutrient for plant growth. (CO2: Understand) 10 marks
4. Write a note on different types of fertilizers. (CO2: Understand) 10 marks
5. Write a note on nitrogen fixation in soils (CO3: Understand) 10 marks
6. Describe the importance of soil irrigation. (CO3: Understand) 10 marks
7. What are pesticides? How are they classified? (CO4: Understand) 10 marks
8. Write a note on herbicides. (CO4: Understand) 10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME : B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE : CH6CRP03 – QUALITATIVE INORGANIC ANALYSIS

SEMESTER :V & VI

9. Discuss the chemistry of reaction of chloride ion with concentrated sulphuric acid. (CO1 : Remember) 10 marks
10. Write the chemistry of reaction of the ash test of aluminium. (CO2 : Remember) 10 marks
11. Analyse systematically the acid radicals present in the inorganic mixture. (CO3 : Analyse) 10 marks
12. Analyse systematically the basic radicals present in the inorganic mixture. (CO4 : Analyse) 10 marks
13. Discuss an experiment to analyse the presence of zinc. (CO5 : Create) 10 marks
14. Write an experiment to analyse the presence of ammonium ion. (CO6 : Create) 10 marks
15. Systematically analyse the acid and basic radicals present in the given inorganic mixture. (CO7 : Analysis) 10 marks
16. Analyse the interfering radical present in the inorganic mixture and write out the chemistry of this reaction. (CO8 : Analysis) 10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE,KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE: CH6CRP04 - ORGANIC PREPARATIONS AND LABORATORY TECHNIQUES

SEMESTER: VI

1. Separate binary organic mixture using TLC (CO1: Understand) 10 marks
2. Calculate R_f value of separated components of TLC (CO1: Understand) 10 marks
3. Purify the compound by simple distillation. (CO2: Understand) 10 marks
4. Determine the boiling point using simple distillation. (CO2: Understand) 10 marks
5. Separate aniline water system using solvent extraction (CO3: Understand) 10 marks
6. Synthesize m-dinitrobenzene from nitrobenzene? (CO3: Understand) 10 marks
7. Synthesize Dibenzal acetone from benzaldyde. (CO4: Understand) 10 marks
8. Recrystallize the synthesized dibenzal acetone and m-dinitrobenzene (CO4: Understand) 10 marks

DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE: CH6CRP05 - PHYSICAL CHEMISTRY PRACTICALS

SEMESTER VI

1. Describe the principle of potentiometric titrations (**CO1**-Remember) 10 marks
2. Describe the principle behind conductometric titrations (**CO1**-Remember) 10 marks
3. Find the molecular mass of the given solute by Rast's method. You are provided with a solvent of known mass and K_f= -----(**CO2-**Apply) 10 marks
4. Determine the mass of the given salt hydrate from transition temperature. You are provided with a salt hydrate of K_f=---- and molar mass of solute = ----. (**CO2-**Apply) 10 marks
5. Why does the conductivity of the solution rise quickly after the equivalence point in conductometric titrations? (**CO3-**Apply) 10 marks
6.Why is the EMF rises steeply soon after the equivalence point during potentiometric titrations (**CO3-**Apply) 10 marks
7. How can you find the molecular mass of a given solute by Rast's method? (**CO4-**Analyze) 10 marks
8. How can you determine the concentration of Fe^{2+} in the whole of the given solution using potentiometric titrations? (**CO4-**Analyze) 10 marks

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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME : B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE : CH6CRP06 – GRAVIMETRIC ANALYSIS

SEMESTER : V & VI

1. Write the gravimetric procedure for the estimation of barium as barium sulphate. (CO1 : Remember) 10 marks
2. Write the gravimetric procedure for the estimation of iron as ferric oxide. (CO2 : Remember) 10 marks
3. Analyse gravimetrically sulphate as barium sulphate. (CO3 : Analyse) 10 marks
4. Analyse gravimetrically copper as cuprous thiocyanate (CO4 : Analyse) 10 marks

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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

SEMESTER VI

CH6CRT09 - INORGANIC CHEMISTRY

1. Explain the various structural isomerism in coordination compounds (CO1-Understand)10 marks

2. Explain stereoisomerism in coordination compounds (CO1-Understand) 10 marks

3. Explain how CFT helps in explaining the spectral and magnetic properties of coordination compounds (CO2-understand) 10 marks

4.Explain VB Theory and how it explains the the magnetic properties of coordination compounds (CO2-understand) 5 marks

5.Discuss the preparation and properties of boric acid and boron nitride (CO3.Understand)5 marks

6. Discuss the preparation and properties of diborane and borazine, boric acid, boron nitride (CO3.Understand)5 marks

7.Describe the structure and functions of Hemoglobin and myoglobin (CO4-Understand) 10marks

8. write a note on various essential and trace elements in biological systems (CO4-Understand) 5marks

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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: BSc. CHEMISTRY

COURSE CODE &NAME OF THE COURSE: CH6CRT10 - ORGANIC CHEMISTRY - IV

SEMESTER: VI

1. Define Terpene. Write a note on its classification.(Remember CO1) 10 marks
2. Write a note on the classification of amino acids. .(Remember CO1) 10 marks
3. Explain briefly about the sources and deficiency diseases of Vitamin A (Understand CO2) 10 marks
4. Explain briefly about the diseases caused by the deficiency of Vitamin C. (Understand CO2) 10 marks
5. Write a note on various non-covalent interactions. (Understand CO3) 10 marks
6. Comment on" non-covalent interactions- Basis of the formation of supramolecular compounds". (Understand CO3) 10 marks
7. Analyze the organic compound using the given data(Analyze CO4)10 marks
8. Analyze the organic compound using the given data(Analyze CO4)10 marks

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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME : B.Sc Chemistry

COURSE CODE & NAME OF THE COURSE : CH6CRT11 – PHYSICAL CHEMISTRY III

SEMESTER : VI

1. Discuss the characteristics of a second order reaction. (CO1 : Understand) 10 marks
2. Write a note on transition state theory. (CO2 : Understand) 10 marks
3. How is entropy of a substance determined. (CO3 : Understand) 10 marks
4. Calculate the various thermodynamic properties for a reversible process. (CO4 : Understand) 10 marks
5. Explain the mechanism of buffer action. (CO5 : Apply) 10 marks
6. How do you determine the degree of hydrolysis of a salt? (CO6 : Apply) 10 marks
7. How Gibs Free Energy is related to temperature? (CO7 : Evaluate) 10 marks
8. Predict the feasibility of a chemical reaction using various thermodynamic properties. (CO8 : Evaluate) 10 marks