

DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

COMPLEMENTARY COURSE

SEMESTER I

CH1CMT01 - BASIC THEORETICAL AND ANALYTICAL CHEMISTRY

1. Define the principles behind the various quantitative chemical analysis like gravimetric analysis and volumetric analysis (CO1-Remember)10 marks
2. Define the principle of redox titration and acid alkali titration (CO1-Remember)10 marks
3. Explain the principle and types of different chromatographic techniques.(CO2-understand) 10 marks
4. Explain the applications of different chromatographic techniques (CO2-understand)10 marks
5. Explain the various concentration terms (CO3-understand) 10 marks
6. Explain the terms atomic mas, molecular mass, molar volume and mole concept (CO3-understand) 10 marks
7. Explain the formation of Ionic bond and Covalent bond with suitable examples (C04-Apply) 10 marks
8. How VB theory gives a theoretical explanation for covalent bond formation (C04-Apply)10marks



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 questions 5 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)



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Zoology Core Semester I

ZY1CRT0I - GENERAL PERSPECTIVES IN SCIENCE & PROTISTAN DIVERSITY

1. Discuss the structure of scientific paper.(10 marks) (CO1)
2. Differentiate inductive and deductive reasoning with suitable example(10 marks) (CO1)
3. Explain different tools used in taxonomy.(10 marks) (CO2)
4. Summarise the different types of taxonomic key(10 marks) (CO2)
- 5.Explain classification of protista(15 marks) (CO3)
6. Justify that paramecium belong to kingdom protists(5 marks) (CO3)
7. write an essay on the life cycle of Plasmodium(10 marks) (CO4)
8. Illustrate the life cycle of trypanosoma gambiense (10 marks) (CO4)



DEPARTMENT OF MALAYALAM, DEVAMATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. MALAYALAM

ML1CCTO1- കമാസാഹിത്യം.

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 വ്യത്യാസങ്ങൾ വിശദീകരിക്കുക.10 Marks (CO2)
- 5.പ്രധാന പരിസ്ഥിതികഥകൾ പരിചയപ്പെടുത്തുക.15 Marks (CO3)
- 6.സാരാ 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)
- 10.മോദസ്ഥിരനായത്ത് വസിപ്പൂ മലപ്പോലെ എന്ന കഥയുടെ സാമൂഹികപ്രാധാന്യം വിശദീകരിക്കുക. 15 Marks (CO5)



DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD

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)



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF BOTANY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

**SEMESTER 1 (COMPLEMENTARY COURSE 1) - CRYPTOGRAMS, GYMNOSPERMS AND
PLANT PATHOLOGY (BO1CMT01)**

Total Marks - 40

9. Enumerate the general characters of cryptogams. – CO1
10. Tabulate the different classes of Algae proposed by F. E. Fritsch. – CO1
11. Summarise the differences in reproductive characters of cryptogams and Gymnosperms. – CO2
12. Identify the characters of bryophytes to consider them as “amphibians of plant kingdom”. – CO2
13. Prepare the list of common plant diseases based on its symptoms. – CO3
14. Write down the role of fungi as decomposer of organic matter. – CO3 (6 x 5 = 30 Marks)

15. Explain the use of lichens as bio-indicators. – CO4
16. Compare the economic value of fungi and other cryptogams in food industry . – CO4 (2 x 5 = 10 Marks)



DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

COMPLEMENTARY COURSE CH2CMP01 - VOLUMETRIC ANALYSIS

SEMESTER I & II

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



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



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)



DEPARTMENT OF MALAYALAM, DEVAMATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. MALAYALAM

ML2CCT02- 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
DEPARTMENT OF BOTANY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

SEMESTER 2 (COMPLEMENTARY COURSE 2) -**PLANT PHYSIOLOGY (BO2CMT02)**

Total Marks - 80

9. Define DP, DPD and OP. – CO1
10. Quote any five significances of transpiration in plants. – CO1
11. Distinguish the different roles of macro elements NPK in plants. – CO2
12. Construct a chart showing the deficiency symptoms of microelements in plants. – CO2
13. Show the different roles cytokinins, gibberellins and auxins in plant growth. – CO3
14. Make a sketch of the C3 cycle. – CO3 (6 x 10 = 60 Marks)

15. Distinguish apoplast and symplast movement of elements in plants. – CO4
16. Select and explain a mechanism in plants which uses water more efficiently. – CO4 (2 x 10 = 20 Marks)



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DEPARTMENT OF BOTANY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

SEMESTER II: COMPLEMENTARY PRACTICAL - SEMESTER I AND II (COMBINED)

CRYPTOGAMS, GYMNOSPERMS AND PLANT PATHOLOGY
& PLANT PHYSIOLOGY (BO2CMP01)

Total Marks - 60

1. Prepare stained micropreparations of *Riccia* thallus and Leaflet of *Cycas* mount in glycerine and prepare a comparison chart. – CO3
2. Choose and experiment to demonstrate the evolution of O₂ during photosynthesis. – CO3
3. Compare the thallus of *Chladophora* and *Polysiphonia* and analyse differences. – CO4
4. Categorize the specimens provided into different plant groups based on morphological and anatomical features (one each from algae, fungi and bryophyte). – CO4
5. Compare the rate of transpiration in the presence and absence of light with the plant materials given. – CO5
6. Predict the causative organism and disease seen in the plant specimens given, comparing the symptoms. – CO5

(6 x 10 = 60 Marks)



DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. ENGLISH LANGUAGE AND LITERATURE

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)



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Semester I

ZY2CRT02: ANIMAL DIVERSITY - NON CHORDATA

- 1. Analyse the the parasitic adaptation in Nematodes.(5 marks) (CO1)**
- 2. Explain commensalism.(5 marks)(CO1)**
- 3. Describe classification of phylum Annelida (5 marks) (CO2)**
- 4. Identify the difference between class Polychaeta and Oligochaeta (5 marks) (CO2)**
- 5.Explain metagenesis and give its importance with one example(5 marks) (CO3)**
- 6. Illustrate the difference between types of coelom and its significance in classification (5 marks) (CO3)**
- 7. Interpret the statement Peripatus is a Connecting Link. (5 marks) (CO4)**
- 8. Describe the reasons for considering ctenophora as a separate phylum. (5 marks) (CO4)**



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.Sc. ZOOLOGY CORE PRACTICAL (ZY2CRP01)
GENERAL PERSPECTIVES IN SCIENCE, PROTISTAN
DIVERSITY & ANIMAL DIVERSITY - NON CHORDATA

- I. Identify the given specimens by their Scientific name & write their habitat and any two relevant characters of each. (CO 1 and CO 2) 10 marks**
- II. Make a neat Scientific drawing of specimen provided (CO 1 and CO 2) 5 marks**
- III. Identify the Dissection sketch and label (CO 1 and CO 2) 10 marks**



DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOMEMEASUREMENT

NAME OF THE PROGRAMME: B.Sc CHEMISTRY

CH3CMT03 - PHYSICAL CHEMISTRY – I

SEMESTER-III

1. Discuss the various types of intermolecular forces in liquids. (CO1-Understand) 10 marks
2. State and explain Henry's Law. Discuss its applications. (CO1-Understand) 10 marks
3. Do all gases obey gas laws? Discuss some experimental results to explain deviation and point out the causes which accounts for this behaviour. (CO2-Understand) 10 marks
4. Derive the kinetic gas equation for an ideal gas. (CO2-Understand) 10 marks
5. Derive Bragg's equation and discuss its applications. (CO3-Understand) 10 marks
6. Explain how the crystal structure of NaCl can be deduced from X-ray diffraction studies.(CO3-Understand) 10 marks
7. Discuss the phase diagram of water system. (CO4-Understand) 10 marks
8. What are the phases that co-exist at equilibrium at the eutectic point of the lead-silversystem? Calculate the variance of the system at that point. (CO4-Understand) 10 marks



DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
B.A. ENGLISH LANGUAGE AND LITERATURE
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)



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.കല്യാണസൗഗന്ധകത്തെ 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 പ്രശ്നവൽക്കരിക്കുന്നുണ്ടോയെന്ന് വിലയിരുത്തുക 10 Marks (CO 3)
7. അൻവറിന്റെ ഉസ്താദ് ഹോട്ടലിൽ രൂചിയുടെ 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
DEPARTMENT OF BOTANY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

**SEMESTER 3 (COMPLEMENTARY COURSE 3) - ANGIOSPERM TAXONOMY &
ECONOMIC BOTANY (BO3CMT03)**

Total Marks - 30

1. Tabulate the difference between natural, artificial and phylogenetic systems of classifications. – CO1
2. Enumerate the characters that support the theory that “flower is modified shoot”. – CO1
3. Distinguish dry dehiscent and dry indehiscent fruits with examples. – CO2
4. Discuss the advantages of chemotaxonomy and cytotoxicity in elucidating the problems of plant taxonomy. – CO2
5. Distinguish different series under polypetalae identifying their major diagnostic characters. – CO3
6. Illustrate the diagnostic features of annonaceae and rubiaceae using floral diagram and floral formula. – CO3 (6 x 3 = 18 Marks)
7. Select two angiosperm families with zygomorphic flowers and point out main differences. – CO4
8. Categorize economically important products from different angiosperm families you studied. – CO4 (2 x 6 = 12 Marks)



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
Model I: Zoology core: Semester 3
ZY3CRT03 ANIMAL DIVERSITY –CHORDATA

1. Name the larval form of petromyzon and its characteristics. (5 marks) (CO 1)
2. Describe retrogressive mechanism with example. (15marks) (CO 1)
3. Sphenodon is said to be a living fossil. Explain (15 marks)(CO 2)
4. Interpret the statement “Crocodiles are amphibious but not amphibians”, true? (5 marks) (CO 2)
5. Illustrate frog brain (15 marks) (CO 3)
6. Explain how 9th vertebra of frog differ from typical vertebra? (5 marks)
(CO3)



DEPARTMENT OF CHEMISTRY, DEVA MATHA COLLEGE, KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

NAME OF THE PROGRAMME: B.Sc Chemistry

CH4CMP02 - PHYSICAL CHEMISTRY PRACTICALS

SEMESTER IV

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 transition temperature of the given salt hydrate. (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



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: CH4CMT05- PHYSICALCHEMISTRY –

II

SEMESTER: IV

1. Discuss the characteristics of second order reactions (CO1: Understand) 10 marks
2. Draw and explain Jablonski diagram (CO1: Understand) 10 marks
3. What are the applications of conductometric titrations? (CO2: Understand) 10 marks
4. Write a note on different types of reference electrodes? (CO2: Understand) 10 marks
5. Derive the expression for rotational term. (CO3: Understand) 10 marks
6. State and explain Beer-Lambert law (CO3: Understand) 10 marks
7. Write a note on different methods to synthesize nanomaterials. (CO4: Analyse) 10 marks
8. What are the applications of fullerenes and carbon nanotubes? (CO4: Analyse) 10 marks



DEPARTMENT OF ENGLISH, DEVAMATHA COLLEGE, KURAVILANGAD
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
B.A. ENGLISH LANGUAGE AND LITERATURE
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)



DEPARTMENT OF MALAYALAM, DEVAMATHA COLLEGE KURAVILANGAD

QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.A. MALAYALAM

Commoncourse II

ML4CCT04- മലയാളഗദ്യരചനകൾ

SEMESTER 4

Time: 3 Hours

Max.marks:200

9. അടുക്കള വീണ്ടെടുക്കപ്പെടേണ്ട ലോകമാണെന്ന നിഗമനത്തിന്റെ സാംഗത്യമെന്ത്? വിവരിക്കുക. 20 Marks (CO1)
10. അരിസ്റ്റോട്ടിലിന്റെ ദൃഷ്ടിയിൽ ഏറ്റവും ഉന്നതമായ കല ഏത്? വിശദമാക്കുക. 20 Marks (CO1)
11. കോളേജ് വിദ്യാഭ്യാസ കാലഘട്ടം എം.ടി.വാസുദേവൻ നായർ പ്രഭാഷണത്തിൽ ഓർമ്മിച്ചെടുക്കുന്ന തെങ്ങനെ? വിവരിക്കുക. 20 Marks (CO2)
12. മനുഷ്യപുരികങ്ങളുടെ പ്രധാന ധർമ്മങ്ങൾ പരിചയപ്പെടുത്തുക. 20 Marks (CO2)
13. കാരൂർ കഥകളിലെ ഹാസ്യരസത്തെക്കുറിച്ച് എം.എസ് കൂമാരൻ നായർ അഭിപ്രായം വിലയിരുത്തുക. 20 Marks (CO3)
14. സംസ്കൃത ഭാഷയുമായി മൊഹാക് ഭാഷയ്ക്കുള്ള സാമ്യങ്ങൾ പരിശോധിക്കുക. 20 Marks (CO3)
15. സിയാറ്റിൽ മൂപ്പന്റെ പ്രസംഗത്തിൽ നിറഞ്ഞുനിൽക്കുന്ന പാരിസ്ഥിതിക ദർശനം വിമർശനാത്മകമായി വിലയിരുത്തുക. 20 Marks (CO4)
16. കാരൂർകഥകളുടെ രൂചിഭേദങ്ങളെപ്പറ്റി ബി.സരസ്വതി പ്രകടിപ്പിക്കുന്ന അഭിപ്രായങ്ങൾ ക്രോഡീകരിക്കുക. 20 Marks (CO4)
17. ഇരട്ടമൊഴിത്തം എന്നാലെന്തെന്ന് മലയാളഭാഷയെ മുൻനിർത്തി പരിശോധിക്കുക. 20 Marks (CO5)

18.മലയാള പ്രസാധന ചരിത്രത്തിൽ ഈശ്വരപിള്ള വിചാരിപ്പുകാർക്കുള്ള സ്ഥാനം നിർണ്ണയിക്കപ്പെടുന്നത് എപ്രകാരമെന്ന് വിശദമാക്കുക.20 Marks (CO5)



DEVA MATHA COLLEGE, KURAVILANGAD
DEPARTMENT OF BOTANY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

SEMESTER 4 (COMPLEMENTARY COURSE 4) - ANATOMY & APPLIED BOTANY
(BO4CMT04)

Total Marks - 30

1. Match the difference between primary structure of dicot and monocot roots. – CO1
2. Enumerate anatomical features of stem and leaves in monocots. – CO1
3. Identify the anatomical adaptations of xerophytes to suit desert habitat. – CO2
4. Associate the wood anatomy in calculating the age of a tree. – CO2
5. Choose a suitable artificial method of propagation used for multiplication of tapioca. – CO3
6. Prepare a chart showing the advantages of anomalous secondary thickening in stems you studied. – CO3 (6 x 3 = 18 Marks)

7. Divide *Vanda*, *Hydrilla* and *Nerium* into different categories of plants based on ecological adaptations. – CO4
8. Select and compare different methods of budding. – CO4 (2 x 6 = 12 Marks)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
COMPLEMENTARY COURSE FOR B. Sc. ZOOLOGY – MODEL –I

SEMESTER IV: COMPLEMENTARY PRACTICAL - SEMESTER III AND IV
(COMBINED)

ANGIOSPERM TAXONOMY, ECONOMIC BOTANY,
ANATOMY & APPLIED BOTANY (BO4CMP02)

Total Marks - 30

1. Apply the morphological and reproductive characters and determine the family of the given angiosperm specimen. – CO3
2. Record the anatomical features and make a sketch of the anomalous features of dicot stem given. – CO3
3. Classify the different economic products into different categories based on morphological characters. – CO4
4. Illustrate the diagnostic features of the given flower –floral diagram, floral formula, and flower LS. – CO4
5. Compare the two specimens given and assign to different ecological groups. – CO5
6. Select a suitable budding procedure and carry out budding for the specimen given. – CO5

(6 x 5 = 30 Marks)



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DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.SC ZOOLOGY CORE PRACTICAL 2 - ZY4CRP02
ANIMAL DIVERSITY – CHORDATA, RESEARCH METHODOLOGY, BIOPHYSICS &
BIOSTATISTICS

1. Identify the dissection provided and name the three flag labelled parts and comment on their function. CO1 and CO2 5 marks
2. Estimate breadth of a hair using micrometer. Write down the principle and procedure. (Coinciding: (1) stage micrometer '0' with ocular '0', (2). Stage micrometer '2' with ocular '20'. Width of hair ocular reading'12') CO1 and CO2 5 Marks

3.

a) Calculate the Range from the data given

Height of students	162,165,163,164,161,166,167,168,169,173,172,171,170.
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b) Construct Pie diagraphs graphs using Graph paper

Countries	India	Pakistan	Sri Lanka	Philippines	Peru
No. Patients	1200	500	700	1300	1400

CO1 and CO3

5+5 marks

4. Determine diversity index using Simpson index 3 marks

a) Calculation and result

Butterfly speicies	1	2	3	4	5	Total
No. Individual	100	50	30	20	1	201

CO1 and CO3

5 marks



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Zoology Core Semester IV

ZY4CRT04 : Research Methodology, Biophysics & Biostatistics

1. What are the characteristics of good research (**CO1 Understanding**)
2. What are the objectives of Research (**CO1 Understanding**)
3. Explain different methods of data collection (**CO2 Understanding**)
4. Cite the illuminating source in TEM? (**CO2 Understanding**)
5. Illustrate the difference between Light Microscope and Electron microscope with the help of a diagram (**CO3 Understanding**)
6. Explain the principle and working of Phase contrast microscope with a diagram (**CO3 Evaluate**)
7. Give an account of various steps involved in 'Scientific Method'(**CO4 Applying**)
8. Write the function of Iris diaphragm in a microscope? (**CO4 Applying**)

(marks 8*10= 80)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
Model I: Zoology core: Semester 5
ZY5CRT05 ENVIRONMENTAL BIOLOGY AND HUMAN RIGHTS

1. Explain Green house effect ? (10 marks) CO1.
2. Describe renewable resources of energy with examples (10 marks) (CO1)
3. Examine the implications of earthquakes ? (10 marks) (CO 2)
4. Explain with suitable example ,every animal has its own niche, (2 marks) (CO 2)
5. Discover the role of symbiotic bacteria in nitrogen cycle (5 mark) (CO3)
6. Generalise the nature of fauna in desert ecosystem (5marks)(CO3)
7. Explain ecological succession with reference to the development of a pond ecosystem (10 marks) (CO4)
8. Categorise IUCN status of threatened species (5 marks) (CO4)
9. Construct the upright and inverted pyramids of numbers and biomass (10 marks)(CO5)
10. Explain different types of animal interaction ? (10 marks)(CO5)
11. Give an account of characteristics of human population (5marks) (CO6)
12. Identify local environmental issues and comment on it (15 marks) (CO6)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
Model I: Zoology core: Semester 6
ZY5CRT06 CELL BIOLOGY AND GENETICS

1. Describe the ultrastructure of mitochondria with the help of labeled diagram.

(10 marks) (CO 1)

2. Define Barr body. (5 Mark) (CO 1)

3 Differentiate between test cross and back cross (10 marks) (CO 2)

4. Discuss the significance of Rh factor (10 marks) (CO 2)

5. State Mendel's law of inheritance with examples (10 marks) (CO 3)

6 Define Prion (5 mark) (CO 3)

7. Construct a Punnett square to predict the result of monohybrid cross and state the genotypic and phenotypic ratios of the F₂ generation (10 Marks)

(CO 4)

8. Explain the mechanism of inheritance of haemophilia in man? (10 Marks)

(CO 4)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Zoology core: Semester 5

ZY5CRT07- Evolution, Zoogeography, Ethology

1. Mention the major sub regions of Ethiopian realm.- 5 marks - CO1
2. What is continental drift theory? .- 10 marks - CO1
3. Explain Panspermia theory. .- 5 marks - CO2
4. Explain theory of special creation.- 5 marks - CO2.
5. Explain Miller-Urey experiment with the help of a diagram. 10 marks- CO 3
6. Explain the chemical evolution with the help of relevant experiments.-10 marks - CO3
7. Explain physical features of Ethiopian realm. 10 marks- CO4
8. Explain the physical features, sub regions and fauna of Australian realm. 10 marks-
CO4



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Zoology Core Semester V

ZY5CRT08 : Human Physiology Biochemistry and Endocrinology

What is RDA? (CO1 Remembering)

What is PEM?(CO1 Remembering)

Summarise Gluconeogenesis and Glycolysis (CO2 Understanding)

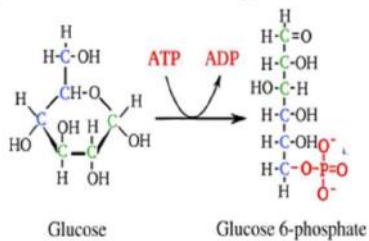
Describe citric acid cycle(CO2 Understanding)

Plan a specific diet during pregnancy and thereafter during lactation (CO3 Applying)

Differentiate between Marasmus and Kwashiorkor (CO3 Applying)

Identify the Enzyme catalyzing the reaction given below. Why is it called a rate limiting step?

(CO4 Understanding)



Summarise the action of pituitary gland in human body (CO4 Understanding)

Explain Electron Transport Chain with a diagram(CO5 Analyzing)

Explain the process of ATP Synthesis (CO5 Analyzing)

Develop a food chart for a Kwashiorkor person (CO6 Creating)

Write the physiological adaptations to normalize blood pressure (CO6 Creating)

Explain the importance of micronutrients in food (CO6 Applying)

Write the role of angiotensin in our body (CO6 Applying)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
Model I: Zoology core: Semester V
OPEN COURSE
ZY5OPT02: PUBLIC HEALTH AND NUTRITION

ZY5OPT02: 2 PUBLIC HEALTH AND NUTRITION

1. Recall types of obesity (5MARKS) (CO 1)
2. Classify Vitamin deficiency diseases (5 marks) (CO 1)
3. Describe Vector borne diseases and their control measures (10 MARKS) (CO2)
4. Explain the role of vermicomposting in solid waste management (10 Marks) (CO 2)
5. Write various water purification techniques. (5 MARKS) (CO3)
6. Examine the general causes of common life style diseases and comment on the preventive measures (10 marks) (CO3)
7. Explain principles of accident prevention. (CO4)
8. Suggest any four measures to prevent fire and burns at your home. (CO4)
9. What are the symptoms of tuberculosis? (CO5)
10. Write on account on vector borne diseases. (CO5)



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DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASURE

Model I: Zoology core: Semester 6
ZY6CRPRP: PROJECT WORK

- 1.explain the methods used in selection of paper for review chapter (10 MARK)(CO1)
- 2.Tell about the relevance of selected topic (10 MARKS)(CO1)
- 3.Explain different methods used in methodology(10 marks)((CO1)
- 4.Give the findings of your work (10 mark)(co2)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
● **B.SC ZOOLOGY CORE PRACTICAL 3 - ZY6CRP03**
ENVIRONMENTAL BIOLOGY AND TOXICOLOGY & CELL
BIOLOGY AND GENETICS

I. Prepare Human blood smear and report two leucocyte.CO2 (6 marks)

II. Estimate the amount of dissolved carbon dioxide in the water. CO1 (10 marks)

III. a) In human brown eyes (B) are dominant to blue (b) and dark hair (R) are dominant to red hair (r). A man with heterozygous gene for both brown eyes and dark hair marries a woman with homozygous gene for blue eye and red hair. Give the phenotypic and phenotypic ratio of the offsprings? CO2 (4 marks)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT
B.SC ZOOLOGY CORE PRACTICAL 4 - ZY6CRP04

EVOLUTION, ETHOLOGY AND ZOOGEOGRAPHY &
BIOCHEMISTRY HUMAN PHYSIOLOGY AND ENDOCRINOLOGY

I. Estimate the total RBC and write the procedure. CO2 (7marks)

**IIa) Mark the given four Zoological realms in the worldmap
Provided. CO1 (4marks)**

**b) Locate the listed four endemic animals to their appropriate
realms . CO1 (3marks)**

**c) Write the names of any two organisms belonging to the
given realms CO1 (3marks)**

**III. Write down the procedure for the analysis of Protein, glucose, starch
and lipid. CO2 (3marks)**



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.SC ZOOLOGY CORE PRACTICAL 5 - ZY6CRP05

DEVELOPMENTAL BIOLOGY & MICROBIOLOGY AND IMMUNOLOGY.

- I. Sketch and label female reproductive system of Cockroach CO1(6 marks)
- II. Gram staining of the bacterial culture. Write down the principle and procedure CO2 (6 marks)
- III. Determine the blood group Write down the procedure and result. CO 2
(4 marks)
- IV. Identify the IVF technique and write down procedure. CO1(4 marks)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

B.SC ZOOLOGY CORE PRACTICAL 6 - ZY6CRP06

BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR
BIOLOGY AND OCCUPATIONAL ZOOLOGY

I. Identify two culturable fishes and two specimens and Comment on

CO2 (8 marks)

II. Download/use print out of genome sequences of two organisms.

Identify and mention the characters.CO1 (6marks)

III. Write down the procedure involved in DNA isolation CO1

(4marks)

IV. Write down the procedure to determine adulteration in honey

CO2 (2marks)



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DEPARTMENT OF ZOOLOGY
QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Semester V

ZY6CRT09: DEVELOPMENTAL BIOLOGY

1. Define gametogenesis (5 marks) (CO1)
2. Describe the difference between oogenesis and spermatogenesis (5 marks) (CO1)
3. Summarise blastulation in frog and chick (5 marks) (CO2)
4. Explain gastrulation occur in chick? (5 marks) (CO2)
5. Short account on any three prenatal diagnostic techniques. (5 marks) (CO3)
6. Illustrate the procedure for aminocentesis . (5 marks) (CO3)
7. Describe the types involved in ART. (5 marks) (CO4)
8. What are the major steps in IVF? (5 marks) (CO4)
9. Explain the importance of sex education. (5 marks) (CO5)
10. Write the measures to prevent intrauterine growth retardation (5 marks) (CO5)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

Model I: Zoology Core Semester VI

ZY6CRT10 : MICROBIOLOGY AND IMMUNOLOGY

1. What are Mesosomes? **(CO1 Remembering)**
2. Illustrate structure of bacteria with diagram**(CO1 Understanding)**
3. Describe the unique features of Mycoplasma **(CO2 Remembering)**
4. Explain various plating techniques **(CO2 Understanding)**
5. Explain ELISA test with a diagram**(CO3 Understanding)**
6. Explain VDRL Test **(CO3 Understanding)**
7. What are “Live Attenuated Vaccines” **(CO4 Remembering)**
8. Give an example of an Adenovirus Vector Vaccine **(CO4 Remembering)**
9. What is an Adjuvant? **(CO5 Remembering)**
10. What is Rheumatoid factor? **(CO5 Remembering)**

(10 x 10 = 100 marks)



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QUESTION PAPER FOR COURSE OUTCOME MEASUREMENT

ZY6CRT11: BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY

1. What is gene manipulation?- 10marks - CO1
2. What is gene expression? - 10marks - CO1
3. Demonstrate the working of an ELISA- 10marks- CO2
4. Illustrate DNA finger printing with the help of a diagram. - 10 marks- CO2
5. Give an account of the contribution of microorganisms to the milk industry. - 10 marks- CO3
6. What are the problems of cloning to mankind? - 10 marks- CO3
7. Explain the salient features various biological databases- 10 marks- CO4
8. What are the benefits of DDBJ?- 10 marks- CO4
9. Explain local and global alignment - 10marks- CO5
10. What is a protein database? - 10marks - CO5
11. Describe the process of DNA replication.- 10 marks- CO6
12. Explain DNA translation. - 10 marks- CO6
13. What do you mean by multiple allelism? - 10marks - CO7
14. What is a genetic code? - 10marks - CO7



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QUESTION PAPER FOR COURSE OUTCOME MEASURE

Model I: Zoology core: Semester 6
ZY6CRT12: OCCUPATIONAL ZOOLOGY

1. Cite two earth worm species used for vermicomposting and steps in composting (10 MARK)(CO1)
2. Differentiate a honey bee queen from a worker (10 MARKS)(CO1)
3. Explain different ornamental fish diseases (10 marks)((CO1)
4. Discuss different methods of communication in honeybees (10 mark)(co2)
5. Discuss vermiwash preparation (10 marks) (CO2) N
- 5 Classify earthworms based on feeding habit?(10 marks)(CO3)
6. Give examples of honeybee species used for apiculture) (10 Marks)) (CO3)

