

Evaluation and Grading

The Evaluation of each Course shall consist of two parts

- 1) Continuous Evaluation(CE)
- 2) End Semester Evaluation(ESE)

The CE and ESE ratio shall be 1:4 for both Courses with or without practical. There shall be a maximum of 80 marks for ESE and maximum of 20 marks for CE. For all Courses(Theory and Practical), Grades are given on a 7-point scale based on the total percentage of mark(CE+ESE) as given below.

Criteria for Grading

| Percentage of marks | CCPA | Letter Grade |
|---------------------|-------------|----------------|
| 90 and above | 9 and above | A+ Outstanding |
| 80 to < 90 | 8 to <9 | A Excellent |
| 70 to <80 | 7to<8 | B Very Good |
| 60 to < 70 | 6to<7 | C Good |
| 50 to < 60 | 5to<6 | D Satisfactory |
| 40 to < 50 | 4to<5 | E Adequate |
| Below 40 | <4 | F Failure |

Continuous Evaluation (CE)

All records of Continuous Evaluation shall be kept in the Department and shall be made available for verification by the University, if and when necessary.

Attendance(Max.marks 5):

The allotment of marks for attendance shall be as follows:

| | |
|---------------------------|---------|
| Attendance less than 75 % | 1 Marks |
| 75 % & less than 80% | 2 Marks |
| 80% & less than 85% | 3 Marks |
| 85% & less than 90% | 4 Marks |

Assignments or Seminars: (Max. marks 5)

Each student shall be required to do one assignment or one seminar for each Course. Valued assignments shall be returned to the students. The seminars shall be organized by the teacher/teachers in charge of CE and the same shall be assessed by a group of teachers including the teacher/ teachers in charge of that Course. Assignments/Seminars shall be evaluated on the basis of their quality. The teacher shall define the expected quality of an assignment in terms of structure, content, presentation etc. and inform the same to the students. Due weight shall be given for punctuality in submission. Seminar shall be similarly evaluated in terms of structure, content, presentation, interaction etc.

Tests: (Max. marks 10)

For each Course there shall be one class test during a semester. Valued answer scripts shall be made available to the students for perusal within 10 working days from the date of the test.

Announcement of results of CE.

The results of the CE shall be displayed within 5 working days from the last day of a semester. Complaints regarding the award of marks for CE if any, have to be submitted to the Head of the Department within 3 working days from the display of results of CE. These complaints shall be examined by the Department Committee and shall arrive at a decision, which shall be communicated to the student.

The Statement of marks of the CE of all the students shall be approved by the Department Committee, countersigned by the Principal and forwarded to the Controller of Examinations within 15 working days from the last day of the semester. The University has the right to normalize the CE, if required, for which separate rules shall be framed.

End Semester Evaluation (ESE):

End Semester Evaluation of all the Courses in all the semesters shall be conducted by the University. The results of the ESE shall be arranged to be published according to the Examination Calendar prescribed by the University Level Monitoring Committee (ULMC), which shall not exceed 45 days from the last day of the examination

Grading System

Both CE and ESE will be carried out using Indirect Grading system on a 7-point scale.

Consolidation of Grades

The maximum mark for a Course (ESE theory) is 80. The duration of ESE is 3 hours.

The marks of CE shall be consolidated by adding the marks of Attendance, Assignment/ Seminar and Test paper respectively for a particular Course.

| | | |
|---|--------------------|---------|
| a | Attendance | 5 marks |
| b | Assignment/Seminar | 5 marks |
| c | Test Paper | 10marks |

Total marks for the ESE of Practical is 80. The components of ESE of Practical have to be set by the Chairmen, Boards of Studies, concerned.

Model of Answer Sheet



**TKM COLLEGE OF ARTS & SCIENCE
KOLLAM**



IE

Total Pages

Name of Examination with programme.....

Name of Course.....

Course Code

Date of Examination

Subject Code Class No.

| | |
|----------------------|----------|
| <input type="text"/> | FN AN |
| Time..... To..... | |

Name of Student.....

| | Qn. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | Total Marks |
|-----------------------|------|------|----|----|----|----|----|----|----|----|----|----|----|-------------|
| | | Mark | | | | | | | | | | | | |
| Very Short (10/10) | Qn. | | | | | | | | | | | | | |
| | Mark | | | | | | | | | | | | | |
| Short (8/12) | Qn. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
| | Mark | | | | | | | | | | | | | |
| Short Essay (6/9) | Qn. | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | |
| | Mark | | | | | | | | | | | | | |
| Long Essay (2/4) | Qn. | 32 | 33 | 34 | 35 | | | | | | | | | |
| | Mark | | | | | | | | | | | | | |

GRAND TOTAL

MAXIMUM MARKS

Name of Invigilator

Signature of Invigilator

T.K.M. College of Arts & Science, Kollam-5
Third Semester Internal Examination (FDP) , January 2024

Time : 9.30 AM TO 12.30PM

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|----|------------------------------|--|--|--|--|--|---|
| | Core Subject | 30.01.2024 Tuesday | 01.02.2024 Thursday | 09.02.2024 Tuesday | 08.02.2024 Thursday | 09.02.2024 Friday | 12.02.2024 Monday |
| 1 | Maths | English for Career EN 1311.1 ✓ (extra 5) | ML 1311.1 ✓ HN 1311.1 ✓ AR 1311.1 ✓ | Elementary Number Theory and Calculus-I (MM 1341) | Statistical Distributions (ST 1331.1) | Optics, Magnetism & Electricity PY 1331.1 | ..... |
| 2 | Physics | " | " | Electrodynamics (PY 1341) ✓ | Physical Chemistry-II CH 1331.1 | Linear Algebra, special function and Calculus (MM 1331.1) | ..... |
| 3 | Chemistry | " | " | Inorganic Chemistry II ✓ CH 1341 | Optics, Magnetism and Electricity PY 1331.2 | Linear Algebra, Probability Theory and Numerical solutions MM 1331.2 | ..... |
| 4 | Botany | " | " | Microbiology, Phycology, Mycology, Lichenology & Plant Pathology (BO 1341) ✓ | Physical Chemistry CH 1331.3 | Functional Zoology ZO 1331 | ..... |
| 5 | Zoology | " | " | Experimental Zoology, Instrumentation, Biostatistics and Bioinformatics (ZO 1341) ✓ | Organic Chemistry CH 1331.4 | Systematic Botany, Economic Botany Ethno Botany, Plant breeding BO 1331 | ..... |
| 6 | Bio-Chemistry | " | " | Cellular Biochemistry ✓ BC 1341 | Inorganic and Organic Chemistry & Spectroscopy CH 1331.6 | Systematic Botany, Economic Botany Ethno Botany, Plant breeding BO 1331 | ..... |
| 7 | English | " | " | British Literature EN 1341 ✓ | Evolution of the English language EN1321 | Introduction to international Trade and Public Finance EC 1331 | Narratives of Resistance EN 1331 |
| 8 | Islamic History | " | " | Life and times of Prophet Muhammed ✓ IH 1321 | Polity and Society under the Pious Caliphs (IH 1341) (extra) | Introduction to international Trade and Public Finance EC 1331 (extra) | History of National Movement in India part III HY 1331.5 |
| 9 | Com -Finance | Business English EN 1311.2 ✓ | Entrepreneurship Development ✓ CO 1341 | Advanced Financial Accounting ✓ CO 1342 | Company Administration CO 1343 | Financial Management CO 1361.1 | E-Business CO 1331 |
| 10 | Com-Computer Application | Business English EN 1311.2 ✓ | Entrepreneurship Development ✓ CO 1341 | Advanced Financial Accounting ✓ CO 1342 | Company Administration CO 1343 | Computer Application for Publication CO 1361.5 | E-Business CO 1331 |
| 11 | Economics and Mathematics | English for Career EN 1311.5 ✓ | Introductory Macroeconomics ✓ MEC 1331 | Economic growth and development ✓ MEC 1332 | Game Theory MEC 1333 | Multivariable Calculus and Vector Calculus MEC 1341 | Abstract Algebra-Group Theory MEC 1342 |

PRINCIPAL

T. K. M. College of Arts and Science
Sixth Semester UG Internal Examination, March 2024

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------|---|---|--|---------------------------|---|--|
| | 13.3.2024 Wednesday | 14.3.2024 Thursday | 18.3.2024 Monday | 19.3.2024 Tuesday | 20.3.2024 Wednesday | 22.03.2024 Friday |
| Mathematics | MM 1645 Integral Transforms | MM 1641 Real Analysis II | MM 1642 Complex Analysis II | MM 1661.1 Graph Theory | MM 1644 Linear Algebra | MM 1643 Abstract Algebra- Ring- Theory |
| Physics | PY 1661.4 Nanoscience & Technology | PY 1641 Solid State Physics | PY 1642 Nuclear & Particle Physics | ..... | PY 1644 Digital Electronics & Computer Science | PY 1643 Classical & Modern Optics |
| Chemistry | ..... | CH 1641 Physical Chemistry II | CH 1642 Organic Chemistry | ..... | CH 1661.1 Supramolecular, Nano particles & Green Chemistry | CH 1643 Physical Chemistry III |
| Biochemistry | ..... | BC 1641 Clinical Biochemistry | BC 1642 Metabolism- II | ..... | ..... | BC 1661.1 Analytical Biochemistry |
| Botany | ..... | BO 1641 Plant Physiology & Biochemistry | BO 1642 Molecular Biology, General Informatics, Bio Informatics | ..... | BO 1651 Biotechnology & Nano Biotechnology | BO 1643 Plant Breeding, Horticulture, . Research Methodology |
| Zoology | ..... | ZO 1641 Physiology & Biochemistry | ZO 1642 Developmental Biology & Experimental Embryology | ..... | ZO 1651 Vermi Culture & Api Culture | ZO 1651 Ethology, Evolution & Zoo Geography |

| | 13.3.2024 Wednesday | 14.3.2024 Thursday | 18.3.2024 Monday | 19.3.2024 Tuesday | 20.3.2024 Wednesday | 22.03.2024 Friday |
|---|---|--|--|--|---|---------------------------------------|
| English | ..... | EN 1641 Gender Studies | P ✓ EN 1642 Indian writing in English | ✓ EN 1661.2 American literature | EN 1644 World Classics | EN 1643 Film Studies ✓ |
| Islamic History | IH 1641 West Asia in 19 th & 20 th centuries | IH 1642 Muslim & Freedom movement of India | P ✓ IH 1643 Kerala Muslims- History & Culture | ..... | IH 1644 Contemporary Debates on Islam | IH 1661 Major world religions ✓ |
| Commerce- Finance | ..... | CO 1641 Auditing | P ✓ CO 1642 Applied Costing | ✓ CO 1661.1 Taxation law and accounts | CO 1651.2 Management of Foreign Trade | CO 1643 Management Accounting ✓ |
| Commerce- Computer Application | ..... | CO 1641 Auditing | P ✓ CO 1642 Applied Costing | ✓ CO 1661.5 Computerised Accounting | CO 1651.2 Management of Foreign Trade | CO 1643 Management Accounting ✓ |

d
PRINCIPAL

Retest Time Table
T.K.M. College of Arts & Science, Kollam-5
Fourth Semester Degree Internal Examination, July 2023

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|----|----------------------------|--|--|--|--|--|---|
| | Core Subject | 21.07.2023 Friday(9.30 am to 12.30 pm) | 21.07.2023 Friday(2.00 pm to 5 pm) | 22.07.2023 Saturday(9.30 am to 12.30 pm) | 22.07.2023 Saturday(1.30 am to 4.30 pm) | 27.07.2023 Thursday(9.30 am to 12.30 pm) | 27.07.2023 Thursday(1.30 am to 4.30 pm) |
| 1 | Maths | Readings in literature ✓ EN 1411.1 | ML 1411.1 HN 1411.1 AR 1411.1 | Elementary Number Theory and Calculus-II (MM 1441) | Statistical Inference ST 1431.1 | Modern Physics and Electronics PY 1431.1 | ..... |
| 2 | Physics | " | " | Classical and relativistic Mechanics(PY 1441) | Spectroscopy and Advanced materials ✓ CH 1431.1 | Complex Analysis, Fourier series and Probability Theory (MM 1431.1) | ..... |
| 3 | Chemistry | " | " | Organic Chemistry I CH 1441 | Atomic Physics, Quantum Mechanics and Electronics PY 1431.2 | Differential Equations, Vector Calculus ✓ and Abstract Algebra MM 1431.2 | ..... |
| 4 | Bio-Chemistry | " | " | Techniques in Bio-Chemistry BC 1441 | Organic Chemistry & Spectroscopy CH 1431.6 | Plant Physiology, Plant Ecology, Horticulture and plant biotechnology BO 1431 | ..... |
| 5 | Botany | " | " | Bryology, Pteridology, Gymnosperms and Paleobotany(BO 1441) | Organic Chemistry CH 1431.3 | Applied Zoology ZO 1431 | ..... |
| 6 | Zoology | " | " | Ecology, Habitat destruction and disaster Management (ZO 1441) | Physical Chemistry CH 1431.4 | Plant Physiology, Plant Ecology, Horticulture and plant biotechnology BO 1431 | ..... |
| 7 | English | " | " | British literature II EN 1441 | Literature of the 20th century EN 1442 | Philosophy for literature EN 1431 | Indian Economy since independence EC 1431 |
| 8 | Islamic History | " | " | The Umayyad of Damascus IH 1441 | The Abbasiah Caliphates IH 1442 | History of contemporary India (After 1948) HY 1331.1 | Indian Economy since independence EC 1431 |
| 9 | B.Com Finance | Readings in literature ✓ EN 1411.2 | Indian Financial Market CO 1441 ✓ | CO1442 Banking And Insurance | CO 1443 - Corporate Accounting | CO1461.1- Project Finance | CO1431 - Business Statistics |
| 10 | B.Com Computer Application | Readings in literature EN 1411.2 | Indian Financial Market CO 1441 | CO1442 Banking And Insurance | CO 1443 - Corporate Accounting | CO 1461.5 - Software For Data Management | CO1431 - Business Statistics |

PRINCIPAL

30/01 01/02 06/02 08/02 09/02 12/02 Signature ^{2/3}

| | | | | | | | | |
|----|--------------------------|----------------------|-----------|-----------|---------------------|------------------------|------------------------|--|
| 0 | Mrs. Ajinza A. | X C-16 | | | | | | |
| 1 | Dr. Ansil PN | | X C-18 | | | | | |
| 2 | Dr. Harisankar H S | | | X C-22 | | X C-15 | | |
| 3 | Mrs. Jisha M.S | | | | X C-16 Riyas | | | |
| 4 | Dr. Sangeetha G | | | | | X C-17 Riyas | | |
| 5 | Dr. Riyas CT | X C-19 | | | | | X C-16 Sangeetha | |
| 6 | Mrs. Rohini Krishna M.V | | X C-17 | | | | | |
| 7 | Dr. Mumthas. Y | | | X B-35 | | | | |
| 8 | Ms. Remya Babu | | | | X C-22 | | | |
| 9 | Mrs. Gayatry. S | | | | | X C-21 | | |
| 10 | Dr. Sumithra Devi. S | | X B-35 | | | | | |
| 11 | Dr. Shafana Shafi | X C-17 Sulfiya | | | | | | |
| 12 | Dr. Sulfia S Santhosh | | | | | | X C-22 Shafana | |
| 13 | Mr. Muhd Roshan B | | | X C-17 | | | | |
| 14 | Dr. Muhammadali P. Kasim | | | | X C-21 Finser | X C-19 Sangeetha | | |
| 15 | Fathima Iqbal | | | | X C-17 | X C-17 Riyas | | |
| 16 | Dr. Finser Muhammed | | | | | | X C-21 Dr | |
| 17 | Dr. Shehnaz S.R. | X B-25 | | | | | | |
| 18 | Mr. Firoskhan A | | X C-15 | | | | | |
| 19 | Dr. Thanseena Bai. R | | | X B-27 | | | | |

T.K.M.COLLEGE OF ARTS AND SCIENCE, KOLLAM

INTERNAL EXAMINATION WING

2023-2024

February 2024

| Sl. No. | Date of Exam | Course/Subject Name | No. of answer scripts received | Department | Sem ester | Name & Signature |
|---------|--------------|---------------------------------|--------------------------------|---|----------------|------------------|
| 1. | 14/2/24 | MM1331.2, CHS | 32 | Mathemat. | S ₃ | Aswathy et al. |
| 2. | | MM1331.1, PYS | 30 | ") | S ₃ | et al. |
| 3. | | MEC 1341, MCE5 | 48 | ") | S ₃ | et al. |
| 4. | | EC1331, ELOND (ENG) | 54 | Economics Islamic Studies | S ₃ | ANUMOL |
| 5. | | " , ELOND (TH) | 54 | Economics | S ₃ | ANUMOL |
| 6. | | Financial Mgt (1331) 166 | | Commerce Fin | S ₃ | Ajaya |
| 7. | | Computer Appl for | | | | |
| 8. | | Publications | 51 | Commerce CA | S ₃ | Rukman |
| 9. | | Optics, Magnetism & Electricity | 30 | Physics | S ₃ | Veena S. Kumar |
| 10. | | Functional Zoology | 38 | Zoology | S ₃ | Dr. Mothery |
| 11. | | BO1331, Biochem | 21 | Botany | S ₃ | et al. |
| 12. | | BO1331, Zoology | 28 | Botany | S ₃ | et al. |
| 13. | | | | | | |
| 14. | | | | | | |
| 15. | | | | | | |
| 16. | | | | | | |
| 17. | | | | | | |
| 18. | | | | | | |
| 19. | | | | | | |
| 20. | | | | | | |
| 21. | | | | | | |

Seating Arrangements 30th Oct. 2024
S3 Internal Examinations

B-25

MM

(15)

5002 - 50032 (30)
(5015 - Ab)
(9H, 18M, 3Ar)

(45)

COFI

5901 - 5915
(13H, 2M)

B-27

PY

(13)

5101 - 5129 (26)
(5111, 17, 24 - Ab)
(11H, 15M)

(39)

COFI

5916 - 5928 (13)
(16M)

B-35

PY

(12)

5130 - 35 (5)
(3M, 2Ar)

(36)

COFI

5929 - 5941
(5939 - Ab)
(12M)

CHE

5201 - 5222 (19)
(5216, 17, 18, 21, 22 - Ab)
(8H, 11M)

CHE

C-15

(19)

5225 - 5238 (13)
(5228 - Ab)
(11M, 2Ar)

COFI

5942 - 5951 (10)
(10M)

BC

5301 - 5328 (19)
(5306, 09, 14, 15, 19, 23 - Ab)
(6H, 9M, 4Ar)

BOT

5401 - 5407 (6)
(5402 - Ab)
(7H)

C 16

(18)

BOT

5408 - 5442 (36)
(5426, 36 - Ab)

(5H, 2M, 5 Ar)

ZOO

5501 - 5505

(04 - Ab)

(4H)

COFI

5952 - 5963
(10M, 2 Ar)

BCO

5853 - 5854
(2 Ar)

C 17

(19)

ZOO
5506 - 5538 (25)

(08, 11, 15, 17, 18, 30, 33, 35 - Ab)

(8H, 13M, 4 Ar)

EN

5601 - 5613

(13H)

(45)

COFI

5964 - 5969
(6 Ar)

EN

5614 (1H)

BCO

5855 - 5859

3 MOVE

COCA

6001 - 6014
(13H, 1M)

C 18

(17)

EN

5615 - 5651 (34)
(17, 27, 35 - Ab)

C 20

(15)

EN

5652 - 5667 (16)
(10M, 6 Ar)

JH

5701 - 5714 (14)
(3H, 11M)

COCA

6015 - 6029 (16)
(15M)

21
⑬
✓
JH
5716-5752 (29, 32, 37, 38, 42-Ab)
(13M, 19Ar)

6030-6045
(16M)

22
⑫
✓
ECO ⑳
5801-5827
(15, 16, 22-Ab)
(10H, 14M)

JH
5753-5761
(9 Ar)

COCA
6046-6048
(3 Ar)

19
⑪
ECO ㉒
5829-5852
(14M, 8Ar)

COCA
6049-6053
(5 Ar)

T.K.M. COLLEGE OF ARTS AND SCIENCE, KOLLAM – JANUARY 2024
THIRD SEMESTER INTERNAL EXAMINATION
B.Com Computer Application
CO 1361.5 - COMPUTER APPLICATION FOR PUBLICATIONS

Time: 3 hours

Maximum: 80 Marks

Part A

Answer *all* the questions.
Each question carries *one* mark.

1. What is word processing?
2. What is the difference between *save* and *save as*?
3. What do you mean by ribbon?
4. What is the purpose of mail merge?
5. What is DTP?
6. How to convert text to table in MS Word.
7. Write the procedure to insert *date and time* in an MS Word Document.
8. How to duplicate slides in MS PowerPoint?
9. What do you mean by screen tips of MS Office Platform.
10. What is clip board?

(10 x 1 = 10)

Part B

Answer *any eight* questions.
Each question carries *two* marks.

11. Write the procedure to add header and footer in MS Word Document.
12. How to create a multi-column document in MS Word.
13. Explain the process of adding digital signature to a word document.
14. Explain the procedure to apply themes in MS PowerPoint.
15. What is the use of format painter in MS Office?
16. Explain the difference between slide *transition* and *animation* in MS PowerPoint.
17. How to insert a picture in InDesign?
18. What is the purpose of Tool Box in InDesign?

19. What is aligning text? Explain the alignment options in MS Word.
20. How to save a PowerPoint document compatible to a previous version?
21. Explain the procedure to add slide numbers.
22. What do you mean by shadow formatting the text.

(8 x 2 = 16)

Part C

Answer *any six* questions.
Each question carries *four* marks.

23. Explain page setup and page orientation in MS Word?
24. How to insert a chart in MS Word? Explain any two types of charts available in MS Word.
25. Explain the procedure to insert a video clip in presentation.
26. Explain the procedure to print a document?
27. Write short notes on leading, tracking and kerning.
28. What are document templates?
29. How to convert PowerPoint presentation into a video clip?
30. What are the important features of MS Word 2019?
31. How to prepare bullets and numbered lists in PowerPoint?

(6 x 4 = 24)

Part D

Answer *any two* questions.
Each question carries *fifteen* marks.

32. What are the components of PowerPoint 2019 user interface?
33. How to personalize the letters in the case of mass mailings? Explain the procedure with an example.
34. Explain the procedure for inserting character spacing, line spacing and paragraph spacing in word documents.
35. What is free software? What are the advantages and disadvantages of free software?

(2 x 15 = 30)

125

EN 414 5

THIRD SEMESTER BA DEGREE MODEL EXAMINATION
FEBRUARY 2024 - FIRST DEGREE PROGRAMME UNDER CBCSS

T.K.M. COLLEGE OF ARTS AND SCIENCE
COMPLEMENTARY COURSE – V

EC 1331: INTRODUCTION TO INTERNATIONAL TRADE AND PUBLIC
ECONOMICS

Time: 3 hours

Max. Marks: 80

SECTION – I

Answer in **one or two sentences**. Attempt **all** questions

1. Exchange Rate
2. Depreciation
3. Corporation Tax
4. Public Economics
5. Public goods
6. GST
7. Internal debt
8. Balanced budget
9. Absolute advantage
10. Surcharge

(10 x 1 = 10 marks)

SECTION – II

Answer **any eight** questions, **not exceeding one paragraph**. Each question carries **2 marks**.

11. Define BOP
12. Define impact of tax.
13. What is currency war?
14. What do you mean by direct tax?
15. Distinguish between export duty and import duty.
16. Explain the Devaluation and depreciation.
17. Give a brief note on fixed exchange rate.
18. Write a note on different types of budget.
19. Give a brief note on GST council.
20. List out the prominent indirect taxes imposed in India?

21. Write a note on incidence of tax.
22. Briefly explain sources of revenue of a government .

(8 x 2 = 16 marks)

SECTION – III

Answer **any six** questions, **not exceeding 120 words**. Each question carries **4 marks**.

23. Explain various types of Tax Systems.
24. Explain the Canons of taxation.
25. Distinguish between Revenue account and Capital Account of a budget.
26. Discuss briefly the shifting of tax.
27. Explain the components of budget.
28. Discuss the difference between the public finance and private finance.
29. Distinguish between the Balance of payments and balance of invisibles.
30. Write a note on the trends on public expenditure in India
31. Explain the Absolute advantage theory of international trade .

(6 x 4 = 24 marks)

SECTION – IV

Answer **any two** questions, **not exceeding four pages**. Each question carries **15 marks**.

32. Define Public Expenditure. What are the reasons for sky-rocketing Public Expenditure?
33. What is Public Debt? Are they beneficial for an economy? What are the methods of Debt Redemption?
34. Explain the superiority of Comparative advantage theory over the absolute advantage .
35. Explain the nature and scope of Public Economics

(2 x 15 = 30 marks)

35

MM 5

Department of Physics
T K M College of Arts and Science

Third Semester BSc First Internal Examination, February 2024
Complementary Course for Mathematics
PY1331.1: Optics, Magnetism and Electricity

Duration: 3 Hrs.

Total Score: 80 Marks

Section A

Answer all questions (Each carries 1 mark)

1. Write the essential conditions for observing the phenomenon of interference of light.
2. What is stimulated emission?
3. Why are Newton's rings circular?
4. What is the phase difference between two successive Fresnel's half period zones?
5. What is Fraunhofer diffraction?
6. Give any use of diffraction grating.
7. What is an optical fiber?
8. What is a permanent magnet?
9. What is magnetic susceptibility?
10. What is Faraday's law of electromagnetic induction?

(1×10 = 10 marks)

Section B

Answer any Eight questions (Each carries 2 marks)

11. Write down the conditions for producing (i) constructive interference and (ii) destructive interference.
12. What are fringes of equal thickness? Give example
13. Explain lasing action
14. What is meant by pumping. Give examples.
15. Distinguish between grating spectra and prism spectra.
16. Differentiate interference bands and diffraction bands.
17. What are the advantages of fiber optic cables over copper?
18. Differentiate step index and graded index fibers.
19. How magnetic susceptibility is used to differentiate different types of magnetism?
20. For an LCR circuit when will the Q-factor be large?
21. What is the phase difference. What is the phase difference between voltage and current in an LC circuit?
22. Give two applications of ferromagnetism.

(2×8 = 16 marks)

Section C

Answer any six questions (Each carries 4 marks)

23. In Newton's ring experiment the diameter of the 4th dark ring is 0.34 cm using a light of wavelength 589.3 nm. Calculate the radius of curvature of the convex lens?
24. A parallel beam of light with wavelength 5890 Å is incident on a thin glass plate (refractive index is 1.5) such that the angle of refraction is 60°. Calculate the smallest thickness of the plate which will appear dark by reflection.

25. The slit separation of the double slit is 0.51 nm. The overall separation of 20 fringes is 40 nm. The wavelength of light used is 510 nm. Calculate the distance between the screen and slit.
26. A plane transmission grating has 6000 lines per centimeter. Find the angular separation of 504 nm and 501.6 nm of helium in the second order spectrum.
27. In Fraunhofer diffraction due to a narrow slit a screen is placed 2 m away from the lens to obtain the pattern. If the slit width is 0.2mm and the first minima lie 5mm on either side of the central maximum, find the wavelength of the light.
28. Find the numerical aperture of an optical fibre having a core refractive index of 1.6 and a cladding refractive index of 1.50.
29. The instantaneous current and voltage of an a.c. circuit are given by $i = 10 \sin 300t$ A and $V = 200 \sin 300t$ V. What is the power dissipation in the circuit ?
30. A magnetizing field of 50A/m produces a field of induction 0.024 T in a bar of length 8 cm and area of cross section 5cm^2 . calculate (a) the magnetic permeability (b) the magnetic susceptibility.
31. A coil has an inductance of 0.1 H and a resistance of 12 ohm is connected to a 220V, 50 Hz mains. Determine the reactance of the coil?

(4×6 = 24 marks)

Section D

Answer any two question (Each carries 15 marks)

32. Explain the theory of diffraction at a straight edge and draw the intensity distribution curve.
33. What is electron theory of magnetism? Explain different types of magnetism using electron theory.
34. Explain the principle construction and working of Ruby laser
35. Derive the relation connecting voltage and current in an ac circuit containing (a) resistance only (b) inductance only (c) capacitance only.

(15×2 = 30 marks)

T.K.M. COLLEGE OF ARTS & SCIENCE, KOLLAM-5
S UG CBCSS internal examination, February 2024
Attendance Statement

Date: 14.2.2024

Time: 9.30 to 12.30

| Sl. No | Roll No. | Name of Course | Attendance (Write P for present and A for absent) | Additional sheets (Tally mark) |
|--------|----------|----------------|---|-----------------------------------|
| 1 | 5716 | PH | P | |
| 2 | 5717 | " | P | |
| 3 | 5718 | " | P | |
| 4 | 5719 | " | P | |
| 5 | 5720 | " | P | |
| 6 | 5721 | " | P | |
| 7 | 5722 | " | P | |
| 8 | 5723 | " | P | |
| 9 | 5724 | " | P | |
| 10 | 5725 | " | P | |
| 11 | 5726 | " | P | |
| 12 | 5727 | " | P | |
| 13 | 5728 | " | P | |
| 14 | 5729 | " | A | |
| 15 | 5730 | " | A | |
| 16 | 5731 | " | P | |
| 17 | 5732 | " | P | |
| 18 | 5733 | " | A P | |
| 19 | 5734 | " | A | |
| 20 | 5735 | " | P | |
| 21 | 5736 | " | P | |
| 22 | 5737 | " | A | |
| 23 | 5738 | " | A | |
| 24 | 5739 | " | A P | |
| 25 | 5740 | " | P | |
| 26 | 5741 | " | P | |
| 27 | 5742 | " | A | |

| | | | | |
|----|-------|------|----------------|----|
| 28 | 57 43 | IH | P | |
| 29 | 57 44 | " | P | |
| 30 | 57 45 | " | A P | |
| 31 | 57 46 | " | P | |
| 32 | 57 47 | " | P | |
| 33 | 57 48 | " | P | |
| 34 | 57 49 | " | P | |
| 35 | 57 50 | " | P | |
| 36 | 57 51 | " | P | |
| 37 | 57 52 | " | P | |
| 38 | 6030 | COCA | P | |
| 39 | 6031 | " | P | 1 |
| 40 | 6032 | " | P | 1 |
| 41 | 6033 | " | P | |
| 42 | 6034 | " | P | |
| 43 | 6035 | " | P | |
| 44 | 6036 | " | P | 11 |
| 45 | 6037 | " | P | |
| 46 | 6038 | " | A | |
| 47 | 6039 | " | P | |
| 48 | 6040 | " | P | |
| 49 | 6041 | " | P | |
| 50 | 6042 | " | P | |

6043, 44, 45 "

| Class- C21 | Roll No. of absentees | Total number of Presentees |
|----------------|--|----------------------------|
| IH- 5716-5752 | 5729, 30, 31 , 34, 37, 38, 42 | 45 |
| COCA-6030-6045 | 6038 | |
| | | |

Total No. of Answer Scripts: 45

Name and Signature of invigilator with date: Gayatri S. Gayatri
14/2/2024

T.K.M. COLLEGE OF ARTS & SCIENCE, KOLLAM-5
S1 UG CBCSS internal examination, January 2024
Attendance Statement

Date: 13/02/2024

Time: 9.30 AM - 12.30 PM

| Sl. No | Roll No. | Name of Course | Attendance (Write P for present and A for absent) | Additional sheets (Tally mark) |
|--------|----------|----------------|---|-----------------------------------|
| 1 | 5408 | BO - EN-1 | P | |
| 2 | 5409 | " | P | |
| 3 | 5410 | " | P | |
| 4 | 5411 | " | P | |
| 5 | 5412 | " | P | |
| 6 | 5413 | " | P | |
| 7 | 5414 | " | P | |
| 8 | 5415 | " | P | |
| 9 | 5416 | " | P | |
| 10 | 5417 | " | P | |
| 11 | 5418 | " | P | |
| 12 | 5419 | " | P | |
| 13 | 5420 | " | P | |
| 14 | 5421 | " | P | |
| 15 | 5422 | " | P | |
| 16 | 5423 | " | P | |
| 17 | 5424 | " | P | |
| 18 | 5425 | " | P | |
| 19 | 5426 | " | A | |
| 20 | 5427 | " | P | |
| 21 | 5428 | " | P | |
| 22 | 5429 | " | P | |
| 23 | 5430 | " | P | |
| 24 | 5431 | " | P | |
| 25 | 5432 | " | P | |
| 26 | 5433 | " | P | |
| 27 | 5434 | " | P | |

| | | | | |
|----|------|------------------------|-----|-----|
| 28 | 5435 | BO - EN-1 | P | |
| 29 | 5436 | " | (A) | |
| 30 | 5437 | " | P | |
| 31 | 5438 | " | P | |
| 32 | 5439 | " | P | |
| 33 | 5440 | " | P | |
| 34 | 5441 | " | (A) | |
| 35 | 5442 | " | P | |
| 36 | 5501 | ZO - EN-1 | P | |
| 37 | 5502 | " | P | |
| 38 | 5503 | " | (A) | |
| 39 | 5504 | " | P | |
| 40 | 5505 | " | P | |
| 41 | 5853 | ECOM - MEC 1 (English) | P | |
| 42 | 5854 | " | P | |
| 43 | 5952 | COF1 - ENCO2 | P | |
| 44 | 5953 | " | P | |
| 45 | 5954 | " | P | |
| 46 | 5955 | " | P | // |
| 47 | 5956 | " | P | |
| 48 | 5957 | " | P | /// |
| 49 | 5958 | " | P | // |
| 50 | 5959 | " | P | |
| 51 | 5960 | " | P | |
| 52 | 5961 | " | P | |

| Class | Roll No. of absentees | Total number of Presentees |
|------------------|-----------------------|----------------------------|
| BO - 5408 - 5442 | 5426, 5436, 5441 | 32 |
| ZO - 5501 - 5505 | 5503 | 4 |
| ECOM - 5853 - 54 | NIL | 2 |
| COF1 - 5952 - 63 | NIL | 12 |
| | | <u>50</u> |

Total No. of Answer Scripts:

Name and Signature of invigilator with date:

53. 5962

54. 5963

ATINZA.A

[Signature]
13/12/2024

"

P

"

P

T.K.M COLLEGE OF ARTS AND SCIENCE, KOLLAM-5

Seating Arrangement - 6th Sem. Degree Examination - March-2024

| Room No | Class | Register Numbers |
|---------|--------------------|------------------|
| B 06 | Physics | 2102-2118 |
| | Mathematics | 2001-2013 |
| | Islamic History | 2737-2753 |
| B 10 | Commerce (Finance) | 2901-2915 |
| | Mathematics | 2014-2027 |
| | Physics | 2119-2135 |
| B 11 | Islamic History | 2701-2717 |
| | Mathematics | 2028-2038 |
| | Islamic History | 2719-2736 |
| B 26 | English | 2601-2616 |
| | Commerce (Finance) | 2931-2946 |
| | English | 2617-2629 |
| B 25 | Commerce (Finance) | 2916-2930 |
| | English | 2630-2645 |
| | Commerce (CA) | 3001-3015 |
| C 01 | Zoology | 2501-2513 |
| | Biochemistry | 2301-2315 |
| | Zoology | 2514-2527 |
| C 10 | Zoology | 2528-2537 |
| | Chemistry | 2226-2235 |
| | Biochemistry | 2411-2417 |
| C 11 | Commerce (Finance) | 2947-2964 |
| | English | 2646-2660 |
| | Commerce (CA) | 3016-3027 |
| C 23 | Botany | 2401-2410 |
| | Biochemistry | 2316-2326 |
| | Botany | 2418-2436 |
| B 34 | Commerce (CA) | 3029-3046 |
| | Chemistry | 2201-2225 |
| | Commerce (CA) | 3047-3049 |
| | Commerce (Finance) | 2965-2969 |

S₆ UG internal examination, March 2024

| | Side | Middle | Side |
|---------------------|--|---|---|
| B06 (16) (45) | PY 2102 - 2118 (16) Ab: 2109 | MM 2001 - 2017 ²⁰¹³ (12) (18) Ab: 2009 | IH 2737 - 2753 (17) |
| B10 (15) (45) | COFI 2901 - 2915 (15) | MM 2018 ²⁰¹⁴ - 2027 2001a (14) | PY 2119 - 2135 (16) Ab: 2130 |
| B11 (16) (43) | IH 2701 - 2717 (16) Ab: 2708 | MM 2028 - 2038 (11) | IH 2719 - 2736 (16) Ab: 2720 2724 |
| B26 (16) (42) | EN. 2601 - 2616 (13) Ab: 2608, 2610 2615 | COFI 2931 - 2946 (16) | EN. 2617 - 2629 (13) |
| B25 (15) (45) | COFI 2916 - 2930 (15) | EN. 2630 - 2645 (15) Ab: 2640 | COCA. 29 3001 - 3015 (15) |

| | | | |
|---------------------------------------|---|--|--|
| <p>201 (13) (39)</p> | <p>BO <u>ZO</u> 2501 - 2513 (13)</p> | <p><u>BC</u> 2301 - 2315 (13) Ab: 2307, 2308</p> | <p><u>ZO</u> 2514 - 2527 (13) Ab: 2524</p> |
| <p>210 (13) (25) (12)</p> | <p><u>ZO</u> ✓ 2528 - 2537 (10)</p> | <p><u>CH</u> ✓ 2226 - 2235 (8) Ab: 2228, 2234</p> | <p><u>BO</u> ✓ 2411 - 2417 (7)</p> |
| <p>211 (17) (44)</p> | <p>EN ✓ 2646 - 2660 (15) <u>COFI</u> 2947 - 2964 (17) Ab: 2952</p> | <p><u>EN</u> 2646 - 2660 (15)</p> | <p><u>COCA</u> 3016 - 3027 (12)</p> |
| <p>223 (14) (26)</p> | <p><u>BO</u> ✓ 2401 - 2410 (10) Ab: 2405, 2407 2409</p> | <p><u>BC</u> ✓ 2316 - 2326 (8) Ab: 2317, 2318, 2319</p> | <p><u>BO</u> 2418 - 2436 (14) Ab: 2423, 2426, 2428, 2429, 2434</p> |
| <p>234 (18) (44)</p> | <p><u>COCA</u> ✓ 3029 - 3046 (18)</p> | <p><u>CHG</u> ✓ 2201 - 2225 (18) Ab: 2205, 2206, 2208 2214, 2215, 2218, 2223</p> | <p><u>COCA</u> ✓ 3047 - 3049 (3) <u>COFI</u> 2965 - 2969 (5)</p> |

T.K.M.COLLEGE OF ARTS AND SCIENCE, KOLLAM
INTERNAL EXAMINATION WING

2023-2024

MARCH 2024

| Sl. No. | Date of Exam | Course/Subject Name | No. of answer scripts received | Department | Sem ester | Name & Signature |
|---------|--------------|-------------------------------|--------------------------------|--------------------|-----------|------------------|
| | 22/3/24 | | | | | |
| 1. | 22/3/24 | Classical & Nuclear Optics. | 28 | Physics | 6 | Aparna K K |
| 2. | 22/3/24 | Horticulture, Plant biology | 25 | Botany | 6 | Sydney |
| 3. | 22/3/24 | Analytical Bio-chemistry | 18 | Biochemistry | 6 | |
| 4. | 22/3/24 | Physical Chem. III | 24 | Chemistry | 6 | |
| 5. | 22/3/24 | Ring Theory | 35 | Mathematics | 6 | M |
| 6. | 22/03/24 | Major World Religions | 45 | Islamic History | 6 | |
| 7. | 22/03/2024 | Management Accounting | 43 66 | Commerce (Finance) | 6 | |
| 8. | | Management accounting | COCA44 | Commerce (CA) | 6 | |
| 9. | 22/3/24 | Film studies | 54 | English | 6 | |
| 10. | " | Ethology, Evolution & Zoology | 27 | Zoology | 6 | Jasim Rahman |
| 11. | | | | | | |
| 12. | | | | | | |
| 13. | | | | | | |
| 14. | | | | | | |
| 15. | | | | | | |
| 16. | | | | | | |
| 17. | | | | | | |
| 18. | | | | | | |
| 19. | | | | | | |
| 20. | | | | | | |
| 21. | | | | | | |

T.K.M. COLLEGE OF ARTS & SCIENCE, KOLLAM-5
S6 UG CBCSS internal examination, March 2024
Attendance Statement

Date: 22.03.24

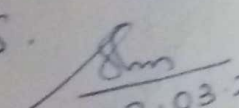
Time: 9:30 - 12:30 am

| Sl. No | Roll No. | Name of Course | Attendance (Write P for present and A for absent) | Additional sheets (Tally mark) |
|--------|----------|----------------|---|-----------------------------------|
| 1 | 2947 | CO - FIN | P | \|\|\|\| |
| 2 | 2948 | " | P | |
| 3 | 2949 | " | P | |
| 4 | 2950 | " | P | |
| 5 | 2951 | " | P | \| |
| 6 | 2952 | " | <u>A</u> | |
| 7 | 2953 | " | P | \| |
| 8 | 2954 | " | P | \| |
| 9 | 2955 | " | P | |
| 10 | 2956 | " | P | \| |
| 11 | 2957 | " | P | |
| 12 | 2958 | " | P | \| |
| 13 | 2959 | " | P | \|\| |
| 14 | 2960 | " | P | |
| 15 | 2961 | " | <u>A</u> | |
| 16 | 2962 | " | P | |
| 17 | 2963 | " | P | |
| 18 | 2964 | " | <u>A</u> | |
| 19 | 2646 | EN | P | |
| 20 | 2647 | " | P | |
| 21 | 2648 | " | P | |
| 22 | 2649 | " | P | |
| 23 | 2650 | " | P | |
| 24 | 2651 | " | P | \|\| |
| 25 | 2652 | " | <u>A</u> | |
| 26 | 2653 | " | <u>A</u> | |
| 27 | 2654 | " | P | |

| | | | | |
|----|------|------|----------|-----------------|
| 28 | 2655 | EN | P | |
| 29 | 2656 | " | P | |
| 30 | 2657 | " | P | |
| 31 | 2658 | " | P | |
| 32 | 2659 | " | P | |
| 33 | 2660 | " | <u>A</u> | |
| 34 | 3016 | COCA | P | |
| 35 | 3017 | " | P | |
| 36 | 3018 | " | P | |
| 37 | 3019 | " | P | \|\|\|\| |
| 38 | 3020 | " | P | |
| 39 | 3021 | " | P | |
| 40 | 3022 | " | P | |
| 41 | 3023 | " | P | |
| 42 | 3024 | " | P | |
| 43 | 3025 | " | P | |
| 44 | 3026 | " | P | |
| 45 | 3027 | " | P | |
| 46 | | | | |
| 47 | | | | |
| 48 | | | | |
| 49 | | | | |
| 50 | | | | Total <u>17</u> |

| Class-... C-11 | Roll No. of absentees | Total number of Presentees |
|------------------|-----------------------|----------------------------|
| COFI - 2947-2964 | 2952, 61, 64 | 15 |
| EN - 2646-2660 | 2660, 53, 52 | 12 |
| COCA - 3016-3027 | Nil | 12 |
| | Total : <u>6</u> | <u>39</u> |

Total No. of Answer Scripts: 45 reviewed 39 distributed balance 6

Name and Signature of invigilator with date: Dr. Sumalekshmy S. 
22.03.24

(56)

To file
1 B6 142
2 CH

T. K. M COLLEGE OF ARTS AND SCIENCE, KOLLAM
DEPARTMENT OF ISLAMIC HISTORY

Sixth Semester B.A Degree Internal Examination, March 2024
First degree programme under CBCSS

ISLAMIC HISTORY

Core Course XII

IH 1642 MUSLIMS AND FREEDOM MOVEMENT OF INDIA

Time: 3 hrs.

Marks: 80

Section A (Very Short Answer Types)

Answer all questions in a word or two.

1. Who was the governor-general during the revolt of 1857?
2. All India Muslim league was founded in the year?
3. The Cabinet mission plan was headed by?
4. The Delhi Darbar took place in the year?
5. The first educational minister of independent India?
6. The Mughal emperor who gave leadership to the revolt of 1857?
7. The treaty of Sreeranga Pattinam was signed in the year?
8. Who was known as frontier Gandhi?
9. Nehru report was drafted under the chairmanship of whom?
10. The partition of Bengal was affected during the viceroyalty of?

(10 x 1 = 10 Marks)

Section B (Short Answer Questions)

Answer any eight questions, not less than fifty words each

11. What is meant by Bannu resolution?
12. Briefly explain the significance of Reshmi Rumal ki Tehriq?
13. Red shirt movement?
14. Battle of Balacot?
15. Bhakth Khan?
16. Battle of Shamli?
17. Partition of Bengal
18. Aligarh movement
19. What was the meaning of Direct Action?
20. Khilafath movement?

21. Hindu Maha Sabha?
22. Write a note on Nehru's report?

(8 x 2 = 16 Marks)

Section C (short essays)

Answer any six Questions, not less than 150 words each

23. Write a note on the role of Muslims in the revolt of 1857?
24. Assess the reasons for the failure of Cripps mission?
25. Evaluate the effects of the Khilafath movement on the Hindu Muslim unity in India?
26. Bring out the characteristic features of the government of India Act of 1919?
27. Evaluate the contributions of Khan Abdul Gaffar Khan to Indian freedom movement?
28. What are the features Faraizi movement?
29. Assess the contributions of Ali Brothers to the freedom movement?
30. Discuss the role of Sir Sayyid Ahmad Khan for the reformation of Indian Muslims?
31. Bring out the role of Tipu sultan as a patriot?

(6 x 4 = 24 Marks)

Section D (Long Essays)

Answer any two questions, not less than 450 words each

32. Discuss the causes for the downfall of Mughal empire?
33. Discuss the rise of Two Nation theory in India?
34. Examine the main features of the Act of 1919?
35. Evaluate the contributions of Moulana Abul Kalam Azad to modern education in India?

(2 x 15 = 30 Marks)

Time: 3 hrs

Marks: 80

I. Answer all questions, each in a word or sentence:-

1. Who coined the term 'womanism'?
2. Name the author of the work 'Phenomenal Woman'
3. Name two African-American women writers
4. Name two Dalit women writers
5. Who wrote the work 'Mascara'?
6. Briefly explain heterosexuality
7. Explain the term 'transgender'
8. Who wrote the work 'Helen of Troy does Countertop Dancing'?
9. What is the term 'performativity' associated with?
10. Name the writer of 'Section 377: How Natural is Normal'

(10x1=10marks)

II. Answer any eight, each in a short paragraph not exceeding 50 words:-

11. Explain intersectionality
12. Explain the term 'Culture'
13. Explain the term 'Gender'
14. How does Atwood combine mythology and contemporary concerns in her poem 'Helen of Troy does Countertop Dancing'?
15. How does the poem 'Wasteland' by Vijila Chirappad become a critique of our society?
16. Differentiate between sex and gender
17. Explain the term Heteronormativity
18. Identify the central theme in the poem 'Mascara'
19. What is the message of 'Phenomenal Woman'
20. Explain the reaction of the Gods to the helplessness of the Devadasi girl in 'Mascara'?
21. How does Maya Angelou describe the reaction of the men to the 'phenomenal woman speaker' in the poem?
22. Explain LGBTQ

(8x2=16 marks)

III. Answer any six, each in a paragraph not exceeding 100 words:-

23. Phenomenal woman is a feminist statement. Discuss
24. Feminisms
25. Consumption/Commodity culture
26. Explain the central theme of "Breaking Binaries: Establishing Identity"
27. Explain the main arguments on sexuality shared by Nivedita Menon.
28. Explain the concerns in 'The Truth about Me: A Hijra Life Story'
29. The poem Mascara is a critique of Devadasi tradition. Explain
30. How does Nivedita Menon describe the role that "gendered dress codes" play in the society?
31. Sexual Economies

(6x4=24 marks)

IV. Answer any two, in about 300 words:-

32. Explain 'The Truth About Me' as a courageous autobiography of a hijra who fought persecution and violence within her home and outside to find a life of dignity.
33. Describe the central concerns in Dalit feminism with reference to the texts prescribed for study
34. Attempt a critical appreciation of the poem 'Phenomenal Woman'
35. Explain Nivedita Menon's observations about Section 377 of the Indian Penal Code

(2x15=30marks)

ZD2

SIXTH SEMESTER B.Sc. DEGREE INTERNAL EXAMINATION, MARCH 2024
First Degree Programme under CBCSS
Zoology Core Course VIII
PHYSIOLOGY AND BIOCHEMISTRY
Course Code – ZO 1641

Max. Marks: 80

Time: 3 hrs

Answer ALL TEN questions. Each question carries one mark.

(10 × 1 = 10)

1. What is scurvy?
1. Define Electrocardiogram.
2. What is chlorocruorin?
3. What are lecithins?
4. Comment on Haemoglobin S.
5. Myopia
6. What is rigor mortis?
7. Comment on neurotransmitters.
8. Define All or None law.
9. Deamination.
- 10.

(8 × 2 = 16)

II. Answer any EIGHT questions. Each question carries two marks.

11. Briefly describe fat soluble vitamins.
12. Differentiate arteriosclerosis from atherosclerosis.
13. Write a note on conjugated lipids.
14. Illustrate the structure of the Heart.
15. Write a note on the Haldane effect.
16. Explain different types of nutrition with examples.
17. Comment on oxygen debt.
18. Name the hormones produced by ovary.
19. Comment on transamination.
20. What is HMP shunt?
21. Write a note on ECG.
22. Comment on juxtamedullary nephrons.

(6 × 4 = 24)

III. Answer any SIX questions. Each question carries four marks.

23. Derive Michaelis Menton equation.
24. Describe carbon monoxide poisoning.
25. Describe the mechanism of blood clotting.
26. Explain the Composition and functions of blood plasma and formed elements
27. Explain Parkinson's disease with symptoms.

28. Explain the ultrastructure of the striated muscles with diagrams.
29. Discuss various renal disorders.
30. Describe the physiology of vision.
31. Briefly describe the endocrine glands in man.

IV. Answer any TWO questions. Each question carries 15 marks.

32. Write an essay on the structure of haemoglobin and explain oxygen-carbon dioxide transport.
33. Write an essay on the structure of human digestive system with the help of a diagram.
34. Discuss the physiological and biochemical events in muscle contraction.
35. Explain the composition of urine and comment on abnormal constituents.

(2 × 15)

**ALLOTMENT OF SEATS FOR THE S4 INTERNAL EXAMINATION
JULY 2023**

| Sl No | Room No | Subject |
|--------------|----------------|---|
| 1 | A 30 | MATHS (2001-38), PHYSICS (2102-09) |
| 2 | A 24 | ENGLISH (2641-2660), ISLAMIC HISTORY (2701-2711), CO FINANCE(2911-2925) |
| 3 | C 10 | ENGLISH (2601-31), CO FINANCE (2901-2910) |
| 4 | B 26 | PHYSICS (2110 – 2135), CHEMISTRY (2201- 2203), CO COMPUTER (3001-14) |
| 5 | B 34 | CHEM (2204-2235), BIOCHEMISTRY (2301-13), CO COMPUTER (3015 – 25) |
| 6 | B 11 | BIOCHEM (2314 -2326), BOTANY (2401-30), CO COMPUTER (3026-37) |
| 7 | B 6 | CO COMPUTER(3038-3049), BOTANY (2431-36), ZOOLOGY (2501-27) |
| 8 | A 25 | COFINANCE (2926-69) |
| 9 | C 19 | ISLAMIC HISTORY (2712-39), EN (2632 -39) |
| 10 | C23 | ISLAMIC HISTORY (2740-53), ZOOLOGY (2528-37) |

T.K.M. COLLEGE OF ARTS & SCIENCE, KOLLAM – 5
Internal EXAMINATION DUTY LIST, S4 JULY 2023

Reporting Time: 9.15AM

| Sl. No: | Names | 07/07 | 10/07 | 11/07 | 12/07 | 13/07 | 14/07 | Signature |
|---------|-------------------------|-------|-------|-------|-------|-------|-------|-----------|
| 1. | Mr. Nisamudeen Ashique | X | | X | | | | |
| 2. | Mrs. Rissana T A | | X | | | X | | |
| 3. | Mr. Harilal N.T | X | | | | | | |
| 4. | Mrs.Niza N. | | X | | | | | |
| 5. | Dr. P.K. Manoj | X | | | | | X | |
| 6. | Dr. Mohammed Salim M. | | X | | | X | | |
| 7. | Mr.Safir T.K. | X | | X | | | | |
| 8. | Dr. Shargina Beegum | | X | | | X | | |
| 9. | Dr. Fairroos C | X | | X | | | | |
| 10. | Dr. Anshad A | | X | | | X | | |
| 11. | Dr. Siyad M A | X | | | | | X | |
| 12. | Dr.Abdul Rahim M.K | | X | | X | | | |
| 13. | Dr. Simi Mole H | X | | X | | | | |
| 14. | Dr. Diveshkumar KV | | X | | X | | | |
| 15. | Mrs. Ajinza A. | X | | | | X | | |
| 16. | Dr. Ansil PN | | X | | X | | | |
| 17. | Dr. Harisankar H S | X | | X | | | | |
| 18. | Dr. Sumayya A S | | X | | X | | | |
| 19. | Mrs. Jisha M.S | X | | X | | | | |
| 20. | Dr. Sangeetha G | | X | | | X | | |
| 21. | Mrs. Rohini Krishna M.V | X | | | X | | | |