Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject- Electronics Paper- III

B.Sc. Part -I Sem- II

Unit Test -2023

Date:- 16-5-2023   Time- 10:30am. To 11:30am   Marks: - 10

Q.1   Explain three transistor regions on output. And deriver the relation between α & β?

Q.2   Derive relation between for stability factor. And Explain thermal runway?

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject- Electronics Paper- IV

B.Sc. Part -I Sem – II

Unit Test -2023

Date-16-5-2023   Time- 10:30a m. To 11:30am   Marks-10

Q.1 What it is different types of shift resister?

Q.2 Describe the working of JK flip flop with logic diagram and symbols?

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject – Physical Chemistry (Paper- III)

B.Sc. Part – I Sem -II

Unit Test -2023

Date:- 16-05-2023   Time -10.30am to 11.30am   Marks- 10

Q.1   Explain the following thermodynamics process?   [06]

a) Isothermal Process.

b) Adiobatic Process.

c) Cyclic Process.

Q.2 Distinguish between spontaneous & non spontaneous process.   [04]

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject – Analytical Chemistry (Paper- IV)

B.Sc. Part –I Sem -II

Unit Test - 2023

Date:- 16-05-2023   Time -10.30 am to11.30 am   Marks- 10

Q.1   Explain classification of Chromatography?   [05]

Q.2 Distinguish between Paper Chromatography & Thin Layer Chromatography [05]

Subject-Botany Paper- III

B.Sc. Part -I Sem -II

Unit Test -2023

Date:- 16-5-2023   Time -11.45 am to12.45 pm   Marks- 10

Q.1 Describe life cycle of Selaginella. Describe ecological importance of Pteridophytes?

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Botany Paper- IV

B.Sc. Part -I Sem -II

Unit Test -2023

Date:- 16-5-2023   Time -11.45 am to12.45 pm   Marks- 10

Q.1 Describe the process of Mushroom cultivation and its commercial importance?

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Mathematics Paper- III

B.Sc. Part -I Sem -II

Unit Test -2023

Date- 16-5-2023   Time -11.45 am to12.45 pm   Marks- 10

Q.1   Determine the extreme value of the function $u=2x^3+xy^2+5x^2+y^2$.

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Mathematics- IV

B.Sc. Part -I Sem -II

Unit Test -2023

Date- 16-5-2023   Time -11.45 am to12.45 pm   Marks- 10

Q.1   Prove Euclidean algorithm. Find GCD and express it as linear combination 657 & 306.

Date- 17-5-2023   Time- 1 hour   Marks-10

10.30 to 11.15 a.m.

Q.1 Write the central idea of the poem 'Stopping by the Woods on a Snowy

Evening.   5 Marks

Q.2 Complete the following pieces of conversation.   5Marks

   1.A: Hello …….Pooja speaking………to Sharvari ?

   B: ………..Out of station………again? O.k. ……… and bye.

   2. A: Good morning. Can…………to Mrs.Prachi Deshmukh?

   B: ……………out of station. May …….?

   A: I am Mr.Hemangi Kulkarni, Please tell her……..

   B: Sure …….this message to her.

   A: Thank you.

   B: My pleasure.

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Shikshan Mandal,Karad's

Mahila Mahavidyalaya, Karad

B.Sc. Part-I Sem-II

Subject : Statistics Paper –III

(Descriptive Statistics-II)

Unit Test-2023

Date-17/05/2023

Mark:10

Time: 11:45 to 12:45

Que.1 Define co-variance between two variable. Discuss the effect of change of origin and scale on variance.

Que.2 Define i) Line of regression

ii) Regression Coefficients.

Prove that coefficient of correlation is geometric mean between the coefficients of regression.

Shikshan Mandal,Karad's

Mahila Mahavidyalaya, Karad

B.Sc. Part-I Sem-II

Subject : Statistics Paper –IV

(Discrete Probability Distribution)

Unit Test-2023

Date-17/05/2023

Mark:10

Time: 11:45 to 12:45

Que.1 State and prove the law of addition of expectation of two random variable.

Que.2 State the law of multiplication of expectation of two independent random variable. If (X ,Y) is a two dimaensional discrete random variable and if $E(X) = 3$, $E(Y)=5$ and $E(XY)=15$ then X and Y must be independent.

SHIKSHAN MANDAL, KARAD's
MAHILA MAHAVIDYALAYA, KARAD
B.Sc. PART-I   Semester – II
SUBJECT: PHYSICS
PAPER –III   DSC-B
(ELECTRICITY AND MAGNETISM -I)

Date 18/05/23   Time: 11.45a.m to 12.45p m   Total marks – 10

Instructions: All questions are compulsory.

Q1. Show that $\vec{\nabla}.(\emptyset\vec{V}) = \emptyset\vec{\nabla}.\vec{V} + \vec{V}.\vec{\nabla}\emptyset$ where $\emptyset$ is a scalar and $\vec{V} = V_1\hat{\imath} + V_2\hat{\jmath} + V_3\hat{k}$ [4]

Q2. Attempt any THREE   [6]

   (i)   Prove that $Div(curl\vec{V}) = 0$

   (ii)   Show that $Div(grad\,\vec{V}) = \nabla^2\emptyset$

   (iii)   Prove that $\vec{A} = 2\hat{\imath} - 3\hat{\jmath} + \hat{k}$ and $\vec{B} = 3\hat{\imath} + \hat{\jmath} - 5\hat{k}$ are perpendicular to each other.

   (iv)   If $\vec{A} = \hat{\imath} + 2\hat{\jmath} - 2\hat{k}$ and $\vec{B} = 2\hat{\imath} - 3\hat{\jmath} + 6\hat{k}$ evaluate $\vec{A} \times \vec{B}$

SHIKSHAN MANDAL, KARAD's
MAHILA MAHAVIDYALAYA, KARAD
B.Sc. PART-I   Semester – II
SUBJECT: PHYSICS
PAPER –IV   DSC-2B
(ELECTRICITY AND MAGNETISM -II)

Date 18/05/23   Time: 11.45a.m to 12.45p.m   Total marks – 10

Instructions: All questions are compulsory.

Q1. Define admittance susceptance and Q factor for a series L-C-R circuit   [3]

Q2. Define (a) sharpness of resonance (b) band width for a series resonant circuit   [2]

Q3. An L-C-R circuit is resonant when connected to an a.c source of voltage 100mV and angular frequency $\frac{1000}{2\pi}$ rad/s. The circuit consists of an inductive coil of resistance 0.5ohm and inductance of 25mH. Calculate (i) capacitance of the condenser (ii) Q factor of the coil [3]

Q4. In an a.c circuit the resistance is 60 ohm and the reactance is 146 ohm. Calculate impedance and susceptance of the circuit.   [2]

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Zoology Paper- III

B.Sc. Part -I Sem -II

Unit Test -2023

Date:- 17-5-2023   Time -11.45-12.45 p.m.   .   Marks- 10

Q.1 Explain life cycle, causal organism, symptoms and preventive measures of Malaria disease.

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Zoology Paper- IV

B.Sc. Part -I Sem -II

Unit Test -2023

Date-17-5-2023   Time -11.45-12.45 p.m.   Marks-10

Q.1 Give an account on Mendel's work and his Hybridization technique.

Shikshan Mandal,Karad's

Mahila Mahavidyalay,karad

B.Sc.(Part –I) Sem-II

Computer Science

Unit Test

DSC-11B Programming Skills Using 'C'.

Day & Date: Thursday & 18/05/2023   **Total Marks:10**

Time:-10:30 a.m to 11:30 p.m

Q1 Solve any Two Question (Each Question Carry 5 Marks)   **10**

1) Explain Array Concept with Example.

2) Explain Decision Making Statement with example.

3) Explain Dynamic Memory Allocation with Example.

Shikshan Mandal,Karad's

Mahila Mahavidyalay,karad

B.Sc.(Part –I) Sem-II

Computer Science

Unit Test

DSC-12B Relational Database Management System

Day & Date: Thursday & 18/05/2023   **Total Marks:10**

Time:-10:30 a.m to 11:30 p.m

Q1 Solve any Two Question (Each Question Carry 5 Marks)   **10**

1) Explain Aggregate Function in RDBMS.

2) Explain SQL Clauses.

3) Explain DDL Command.

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Microbiology Paper- III

B.Sc. Part -I Sem -II

Unit Test -2023

Date:- 18-5-2023   Time -10.30-11.30 p.m.   .   Marks- 10

Q.1 Write the nutritional requirements of micro organisms.

Shikshan Mandal Karad's

Mahila Mahavidyalaya, Karad

Subject-Microbiology Paper- IV

B.Sc. Part -I Sem -II

Unit Test -2023

Date:- 18-5-2023   Time -10.30-11.30 p.m.   .   Marks- 10

Q.1 What are carbohydrates and classify them in detail.