I. Explain various forms of news writing with examples.

Unit I

Note: Attempt five questions in all selecting one question from each Unit. Unit V is compulsory.

Reporting
Paper VI

MASS COMMUNICATION

2001

Total Pages: 05

ROLL NO. 09

TIME: Three Hours

Maximum Marks: 50
Write short notes on any four of the following:

A

Unit I

B

Unit II

C

Unit III

D

Unit IV

E

Unit V

1. Discuss in detail importance of follow up stories in reporting with example.

2. What does a journalist keep in mind while reporting a

3. Press conference? Discuss

4. Discuss with examples. How are links in web reporting? How are they used?

5. When do you prepare for a live web report in a website?

6. List some advantages and disadvantages of video journalism.

7. How do you prepare for a live web report in a website?

8. Write a note on it.

9. Write short notes on any four of the following:

A

Unit I

B

Unit II

C

Unit III

D

Unit IV

E

Unit V
2. Discuss television as a medium of advertising.

1. Define Advertising.
2. Discuss various concepts of Advertising.

Unit 1

Note: Attempt one question in each Unit I to V. Briefly answer.

Maximum Marks: 80

Time: Three Hours
1. What is the role of social marketing and development in advertising? Discuss.

2. What is an advertising campaign? How are advertising campaigns organized? Discuss.


4. Write a note on Indian advertising industry.

5. Discuss various types of advertisements. Which type is the most common? Discuss.

6. Write an essay on the role of social media in advertising.

7. Discuss the impact of advertising on consumer behavior.

8. Write a short note on the influence of advertising on society.

9. Briefly answer all the four questions:

   (i) Unit I
   (ii) Unit II
   (iii) Unit III
   (iv) Unit IV

   A Total = 4×4 = 16

II

UNIT II

Explain the different stages of radio programme production.

I

UNIT I

Write about the essential skills for radio news reader.

Note: Attempt any one question from Unit (I-VII).

Time: Three Hours

Maximum Marks: 50

Paper: VIII

Radio Journalism

2003

MDE/M-17

ROLL NO. 03

Total Pages: 03

8. Do you think the national programme of All India Radio respect the spirit of India? Explain with examples.

IV
Unit IV

5. Explain the production process of a news report with examples.

III
Unit III

4. Discuss the structure of radio news in details.

II
Unit II


I
Unit I


3. Good coordination should be there between photograph:

II
Unit II

2. Write a detailed note on „text vs. photo“ with examples:

I. Explain the concepts and developments of Photo Journalism:

II
Unit I

Note: Attempt any one question from each Unit (I-IV). Unit IV

Maximum Marks: 50

Paper: IX
PHOTO JOURNALISM
2004

MDE/M-17

Total Pages: 03
5. Write about the life of famous and fashion photographers.

6. Write about the differences between newspapers and magazines, photography.

7. Write about the differences in the way you select photos for newspapers and sub-editors.

8. Explain the benefits of photography.

Explain

Unit IV

Unit V

Unit VI

5. Write short notes on any four of the following:

Photoshop
Red carpet photography
Caption
Investigative reporting
Chopping
I. Explain Copy Right Act in detail with two case studies.

Q. (a)

II. Which do you understand by contempt of court and how one can be saved from this?

Q. 1
Press and Book Registration Act (vi)
Joint ownership (v)
New media business (iv)
RII Cinematograph Act (iii)
Freedom of speech (ii)

5. Write notes on any four of the following:

- Press and Book Registration Act
- Joint ownership
- New media business
- RII Cinematograph Act
- Freedom of speech

3. Explain the operations of news media companies in detail.

II

What is the need of media management and its scope?

III

How reasonable do you think multinational stake is in India media business?

IV

Why 1990 Act but not 1960 Act is important?

V

1. Explain the issues and challenges between public and private limited companies.
1. (a) What do you understand by zero-point energy? Prove

2. Explain the principle that if two particles will obey the Pauli exclusion principle, they cannot occupy the same quantum state simultaneously.

3. Explain the physical significance of a mono-energetic particle beam.

4. (a) For a system of two non-interacting identical particles, explain the Pauli exclusion principle.

5. Why a system of identical particles cannot have states

8. (b) Its classical analogues. Comment whether this result has classically analogues. Comment whether this result has

9. (a) Explain the principle of indistinguishability.
UNIT-I

Approximation

4) Deduce the validity criterion of the first Born approximation.

7) Obtain the scattering amplitude:

\[ A(t) = \frac{1}{\hbar} \int_{-\infty}^{\infty} d\tau \langle \psi(\tau) | \psi(t) \rangle \]

UNIT-II

4) Consider a system described by a time-dependent Hamiltonian in the form:

\[ \mathcal{H}(t) = \mathcal{H}_0 + \mathcal{V}(t) \]

for studying the time evolution of the state of the system. Give details of the information provided by the Schrödinger equation.

8) Explain whether the energy eigenstates obtained in (a) are degenerate or non-degenerate. If degenerate, find the degeneracy of the energy levels. If non-degenerate, give the value of the energy eigenvalue for the hydrogen atom. Also, write the maximum possible wave function, find the expectation value of the orbital angular momentum of an electron in a d-orbital.

UNIT-III

2) Find the relation between the initial state and the final state for a time-dependent Hamiltonian in the form:

\[ \mathcal{H}(t) = \mathcal{H}_0 + \mathcal{V}(t) \]

5) Calculate the Clebsch-Gordan coefficients for the transition in which \( S_1^2 \) and \( S_2^2 \) are diagonal.

4) Consider a particle of spin \( s = \frac{1}{2} \). Find the matrices representing the operators \( \vec{S}_1 \) and \( \vec{S}_2 \) in a vector representation in which \( S^\pm \) and \( S^z \) are diagonal.

8) A hydrogen atom present in its ground state is placed in an external time-varying homogeneous electric field.
UNIT I

3. (a) Why effective dielectric constant is decreased due to the presence of ions and electrons in a region?
(b) Why effective dielectric constant is decreased due to the conductive bodies.

3. (c) Apply generalized reciprocity theorem to the simple rectangular guide.
(d) When are guided waves? What boundary conditions for the rectangular guide.
(e) Define the depth of penetration.

Compulsory Question

Each unit, 0. Q. No. 1 is compulsory.

Note: Answer five questions in all, selecting one question from each unit.

Maximum Marks: 55

Time: Three Hours

Paper II

ELECTROMAGNETIC THEOREY

4256

MDM-17

Roll No. Total Pages: 3
UNIT-III

5. (a) Establish relation between vector and scalar potentials.

6. (b) Derive an expression for power radiated by a current in electromagnetic field.

7. (a) What is antenna array? Discuss the radiation patterns of two-element array or non-directional radiation.

8. (a) Explain various factors affecting lower useful high frequency during sky-wave transmission.

9. (a) Propagation is parallel to magnetic field. Discuss the effects of earth's magnetic field on ionospheric propagation when the direction of propagation is parallel to magnetic field.

10. (a) Show that the attenuation factor for ionospheric propagation is very large in comparison to collision frequency, when the frequency is very large in comparison to propagation velocities and the inverse square of the frequency.

UNIT-II

4. (a) Discuss in detail the interaction of fields with matter.

5. (a) Derive an expression for attenuation factor for the TEM between perfectly conducting parallel plates.

6. (a) Explain the crossed field motion of charged particle.

7. (b) Derive an expression for attenuation factor for the TEM wave.

8. (b) Describe the radiation or non-directional radiation.

9. (b) Define effective area of an antenna. Show that for an incident wave, electric and magnetic fields differ in time phase by $\frac{\pi}{2}$.

10. (b) When an electromagnetic wave is incident normally on a perfect conductor it is entirely reflected. Show that electric and magnetic fields differ in time phase by $\pi$. 

UNIT-I

6. (b) Explain various factors affecting lower useful high frequency during sky-wave transmission.

7. (b) Propagation is parallel to magnetic field. Discuss the effects of earth's magnetic field on ionospheric propagation when the direction of propagation is parallel to magnetic field.

8. (b) Show that the attenuation factor for ionospheric propagation is very large in comparison to collision frequency, when the frequency is very large in comparison to propagation velocities and the inverse square of the frequency.

9. (b) Derive an expression for power radiated by a current in electromagnetic field.

10. (b) Discuss the radiation or non-directional radiation.
4. Coefficient of gamma rays?
   (b) What is the relevance of half and mass attenuation curve?
   7
   2. (a) Discuss the unique features of electronic energy loss

UNIT-I

3. (a) Define the process of photoelectric effect.
   (b) Working in a nuclear environment?
   (c) What are the possible sources of health hazards of using GM counter?

2. (a) What are the different particles that can be detected different from the neutral one?
   (b) How is energy loss mechanism of a charged particle is

Compulsory Question

An unanswerable calculator is allowed.

until Question No. 1 is compulsory. Use of scientific (non-

Note: Attempt all questions in all sections on question from each

Maximum Marks : 55

Time : Three Hours

Paper-III

APPLIED NUCLEAR SCIENCE

4257

MDE/M-17

ROLL No. ..........

TOTAL PAGES : 3
UNIT I

Q. Discuss briefly about the concept of nuclear reactions.

Q. What are the main features of Compton and pair production processes?

Q. What are the main features of Compton and pair production processes?

Q. Explain the concept of moderation and list the required properties of a neutron moderator.

Q. Explain the concept of moderation ratio.

Q. What is the basic difference between the neutrons generated in a photo nuclear reaction and those generated from the nuclear reactor?

Q. What is the basic difference between the neutrons generated in a photo nuclear reaction and those generated from the nuclear reactor?

UNIT II

Q. Describe the principle of construction and working of a HPGe detector.

Q. Describe the principle of construction and working of a HPGe detector.

Q. What is the basic difference between the normal and LI

Q. Define the term resolution of a detector.

UNIT III

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.

Q. Discuss about the basic concept of fusion reactor.
PROVE THAT

\[ AB + \overline{AB} + \overline{AC} + \overline{ABC} = 1. \]

\[ \overline{A} + \overline{B} + \overline{C} + \overline{ABC} = \overline{AB}. \]

(a) Describe the operation of a \textit{NAND} gate.

(b) Briefly explain parity and \textit{Excess-3} codes.

UNIT I

2. \textit{Logic} and \textit{Logic Gates} depends upon:

(a) On what factors does the operation speed of a \textit{TTL} logic

register depend?

3. Explain why there may be a \textit{Race condition} in a \textit{digital}

system.

3. Why digital electronic \textit{CMOS logic} gates are superior than

\textit{NAND} and \textit{NOR} gates?

4. What are the \textit{advantages} and \textit{disadvantages} of using

\textit{CMOS logic} gates?

5. \textit{Compulsory Question}

\textbf{Compulsory: Select one question from each unit.}

\textbf{Note: Attempt five questions in all. Question No. 1 is}

\textbf{Maximum Marks: 55}

\textbf{Time: Three Hours}

\textbf{Paper - I}

\textbf{Electronics II}

\textbf{MDM-17}

\textbf{ROLL NO.} \\
\textbf{Total Pages: 3}

\textbf{4259/150/KD/1276}
UNIT-IV

5. Explain the operation. 
6. Draw the block diagram of a decade ripple counter and explain the operation.
7. Construct a shift register using SRflip-flops, and briefly explain the operation.
8. List three applications of a ROM and explain them very briefly.

UNIT-III

6. Write a program in assembly language which arranges the given sixteen numbers in descending order.
7. Write a program in assembly language which arranges

UNIT-II

5. What is XOR gate? Develop truth table of a three input XOR gate.
6. What is nor gate? Develop truth table of a three input NOR gate.
is nilpotent. Find its invariants.

\[
\begin{pmatrix}
0 & 1 & 1 \\
1 & -1 & -1 \\
1 & 1 & 1
\end{pmatrix}
\]

(b) Prove that the matrix are unique.

2. (a) Prove that invariants of a nilpotent linear transformation $(\infty > 0, \Delta(\lambda))$ is nilpotent (dim$^A\lambda$ $\in \lambda$) as only $\in \lambda$ as characteristic.

Prove that if $\not\exists \lambda \in A(\lambda)$, then that the minimal polynomial of $F$ over $F$ divides the such $(\frac{W}{\lambda})$.

Prove that $\not\exists \lambda \in A(\lambda)$, prove that $\exists \not\exists \lambda \in A(\lambda)$, prove then $\exists \lambda \in A(\lambda)$, prove that $\exists \lambda \in A(\lambda)$.

Let $W$ be an invariant subspace of a vector space $V$.

SECTION I

Marks: 3

Note: Attempt three questions in all sections at least one.

Maximum Marks: 80

Time: Three Hours

Paper: 406

ADVANCED ABSTRACT ALGEBRA-II

OMDE/M-17

Total Pages: 3

ROLL NO.
\[ (q) \text{ Prove that if } I \text{ is a minimal left ideal of } R, \text{ then every } \text{ nilpotent ideal of } \frac{R}{I} \text{ is a nilpotent ideal.} \]

\[ (q) \text{ Prove that in a left Noetherian ring the intersection of all } \text{ nilpotent ideals is } \text{ nil ideal.} \]

**SECTION III**

\[ (q) \text{ Let } M \text{ be a sub-module of a left } R \text{-module } M \text{ such that } M \text{ and } N, \text{ respectively, then } \frac{M}{N} = \frac{M}{N} \text{ for } M \text{ and } N, \text{ respectively.} \]

\[ (q) \text{ Let } I \text{ and } I_1 \text{ be sub-modules of the } R \text{-modules } M \text{ and } M_1, \text{ respectively.} \]

\[ (q) \text{ Prove that if } R \text{ is a field, then } \text{ every left ideal of the matrix ring } M_n(R) \text{ over } R \text{ is a nil ideal.} \]

\[ (q) \text{ Prove that a left } R \text{-module } M \text{ is cyclic if } M \equiv R/I, \text{ for some left ideal } I \text{ of } R. \]

**SECTION II**

\[ (q) \text{ Let } I \text{ a } (\mathcal{A}) \text{-module.} \]

\[ (q) \text{ Let } I \text{ be such that } I = I. \]

\[ (q) \text{ Let } (\mathcal{A}) \text{ be a } (\mathcal{A}) \text{-module.} \]

\[ (q) \text{ Let } (\mathcal{A}) \text{ be a cyclic module.} \]

\[ (q) \text{ Let } (\mathcal{A}) \text{ be the minimal polynomial of } \mathcal{A}. \]

\[ (q) \text{ Let } p(x) \in \mathbb{F}[x] \text{ be the minimal polynomial of } \mathcal{A}. \]
\[
\frac{1}{z} {\binom{u-2}{z}} \quad \text{where} \quad {\binom{u}{z}} = \frac{\Gamma(u+1)}{\Gamma(z+1)\Gamma(u-z+1)}
\]

where \( \Gamma(u) \) is the gamma function.

\[
\lim_{z \to 0} \frac{1}{z} {\binom{u-2}{z}} = (1 - 2)^{\frac{1}{2}} (2)^{\frac{1}{2}}
\]

\[\frac{(u + 2)\cdots(z + 2) (1 + z 2)^{z}}{z^{u}} \quad \text{for} \quad z \to 0 \quad u \neq 0 \quad |z| < 1^\text{a}
\]

**SECTION I**

From each section, all questions carry equal marks.

**Note**: Attempt five questions in all, selecting at least one question from each section.

**Maximum Marks**: 80

**Time**: Three Hours

**Paper**: 409

**Complex Analysis-II**

**Mathematics**

**ODE/1.1**

**Total Pages**: 3

**ROLL NO.**
(c) State and prove Blaschke's Inversion.

6. (a) State and prove Hadamard's Three Circle Theorem.

(b) State and prove Schwarz Reflection Principle.

SECTION-II

5. (a) If \( n : C \to R \) is a continuous function which has the
natural boundary:

- \( \sum \text{convergent of the power series } \quad + a_2 z \quad + \cdots \) is a
- Define Natural Boundary. Show that circle of

(b) Define Dirichlet Problem and prove that this problem
mean value property then show that \( n \) is harmonic.

SECTION-III

7. (a) Define order of an entire function. Find the order of
the following:

(b) A polynomial \( p \) such that:

\[ p(z) = a_n z^n + \cdots + a_1 z + a_0 \neq 0 \text{ for } z \neq 0 \]

(c) If \( p \) is an entire function then show that:

- \( p(0) = 0 \) and \( p'(0) = 0 \) imply that \( p \) is a linear function.

(d) If \( p(z) \) is an entire function then show that:

- \( p(z) \) is bounded in \( \mathbb{C} \) if and only if \( p(z) \) is a constant function.

(e) If \( p \) is an entire function then show that:

- \( p \) is a polynomial if and only if \( p \) is entire and \( p(0) \neq 0 \).
Justify your answer.

The first of the lower central series that equals identity?  

If \( G \) is nilpotent group of class \( n \), then which term is

2. (a) State and prove three subgroups lemma of P Hall.

SECTION I

Prove that \( L \) is Noetherian.

If \( L \) is a \( n \)-dimensional vector space over a field \( F \) then

(b) Show that \( Z \) as \( L \) module is not Artinian.

(c) When a module is called finitely generated?

(d) Define Simple module.

(e) Define Basic Jordan block belonging to \( \lambda \).

(f) Symmetric relations.

(g) Show that relation of similarity in linear transformations

(h) Find the value of commutator \([x, y]\). 

(i) Is Group of order one nilpotent or not? Justify.

I. Compulsory Question


carry equal marks.

Attempt one question from each section. All questions

Note : Attempt five questions in all. Q 1 is compulsory.

Maximum Marks : 80

Time : Three Hours

Paper : MM-407
ADVANCED ABSTRACT ALGEBRA-II

4297
MIDSEM-17

OII NO.
Total Pages : 3

............................................................
5.

Theorem.
Prove that a submodule of an Artinian ring need not be both $\frac{N}{M}$ and $\frac{M}{N}$ are Artinian.

Proof. Let $N$ and $M$ be Artinian.

If $M$ is Noetherian, then prove that $M$ is Noetherian if and only if $M$ is a Noetherian free module over a Noetherian ring.

SECTION-IV

Let $M$ be a finitely generated free module over a Noetherian ring.

7.

Prove that a submodule of a free module $M$ is cyclic if and only if $M = \frac{R}{R}$ for some left ideal $I$ of $R$. Let $R$ be a ring with unity. Prove that an $R$-module $M$ is cyclic if and only if $M = \frac{R}{R}$ for some left ideal $I$ of $R$.

SECTION-V

Let $M$ be an $R$-module, and let $N$ be an $R$-submodule of $M$.

8.

Prove that the matrix

\[
\begin{bmatrix}
0 & 1 & 1 \\
1 & 0 & 1 \\
1 & 1 & 1 \\
\end{bmatrix}
\]

is invertible if $0 \neq 0$.

SECTION-III

Prove that $\frac{N}{M}$ is a submodule of $M$.

9.

Prove that the submodules of the group $(\mathbb{Z}/5\mathbb{Z})^\times$ are of the form $\frac{N}{M}$, where $U$ is a submodule of $M$.

SECTION-II

Prove that a finite group of order $p$ is nilpotent if and only if $p$ is a prime number.

10.

If $G$ is a finite group of order $p$ and is nilpotent then prove that $\frac{G}{Z(G)}$ is cyclic at most $n$ times.

11.

If $G$ is a finite group of order $p$ and is nilpotent then prove that $G/Z(G)$ is cyclic at most $n$ times.
Section I

7. State and prove Lebesgue's theorem regarding points of discontinuities of Riemann integrable functions.

8. Show that the measure in translation is invariant.

(a) Show that the Lebesgue measure is translation invariant.

(b) Show that every measurable function can be approximated by a sequence of simple functions.

(c) Construct a set which is not Lebesgue measurable.

(d) Construct a measurable function whose outer measure zero.

Section II

9. Attempt five questions in all selecting one question from each section and the compulsory question (a).

Note: Maximum Marks: 80

Time: Three Hours

Paper: NM-408

REAL ANALYSIS-II

4298

DEPM-17

Total Pages: 3

Roll No. ......................
6. Let $f$ be an increasing real-valued function on the interval $[a, b]$. Show that the derivative, $f\', \int_a^b$ is measurable, and that $f(x) = \int_a^x f'$ for almost all $x$. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. 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Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere. Also, show that $f$ is differentiable almost everywhere.
SECTION I

Note: Attempt one question from each Section I to IV. Section I.

Time: Three Hours

Paper: MNR-499

Computer Programming (Theory)

Total Pages: 4

Roll No. 00

SECTION II

EXIT and CYCLE

Keywords:

Write a program using a subroutine to illustrate the use of the given vectors. Also, write a program to illustrate the use of the given points to derive the condition forms of the condition.

SECTION III

1. Illustrate with example programs the working of various

SECTION IV

Explanation of significant ideas.

(d) Explain the working of BACKSPACE key word in

(e) Give an example of an array of a derived data type.

Why is the purpose of formal reason needed?
SECTION I

7. (a) In a generalized syntax for opening a sequential file

8. (a) Explain the various options available in FORTRAN-90.

SECTION II

(a) Use an example to explain the declaration and assignment of REAL=70 and INT-70.
(b) Explain the meaning of various integer values used in FORTRAN-90.

SECTION III

(a) Explain the various options available in FORTRAN-90.
(b) Use a generalized syntax for opening a sequential file.
(c) Use a SELECT CASE construct, write a source program to compute

\[ \int_0^1 \frac{1}{x} f(x) \, dx \]

(d) Using a MODULE, write a source program to compute

(e) Illustrate the use of INTERFACE in a source program.
(f) Illustrate the use of INTERFACE in a source program.
(g) Illustrate the use of INTERFACE in a source program.
(h) Illustrate the use of INTERFACE in a source program.

SECTION IV

(a) Discuss the working of in-built functions in FORTRAN-90.
(b) Discuss the working of in-built functions in FORTRAN-90.
(c) Discuss the working of in-built functions in FORTRAN-90.
(d) Discuss the working of in-built functions in FORTRAN-90.
(e) Discuss the working of in-built functions in FORTRAN-90.
(f) Discuss the working of in-built functions in FORTRAN-90.
(g) Discuss the working of in-built functions in FORTRAN-90.
(h) Discuss the working of in-built functions in FORTRAN-90.
SECTION II

\[
\left( \frac{1}{2} + \zeta \right) \left( 1 - \frac{1}{2^{2}} \right) = \ln \Gamma \left( \frac{3}{2} \right) - \ln \Gamma \left( \frac{1}{2} \right)
\]

-prove that

Prove that

\[|1 + \delta| \geq 2 \delta \]

for every integer \( n \geq 1 \).

SECTION I

marks

Section 1) is compulsory. All questions carry equal

Note: Attempt one question each from Section I-V. Q. No. 9

Maximum Marks : 80

Time: Three Hours [ ]

Paper : W.M-410

COMPLEX ANALYSIS- II

M.D.EM.17

ROLL No. ..............

Total Pages : 3
8. State and prove Bloch's Theorem.

If \( f \) is an entire function of finite order \( p \) then prove:
\[
|\log f(z)| = \log \sup_{|z|=R} |f(z)| = o \quad \text{as} \quad R \to \infty
\]

7. (a) Show that the exponential of convergence of a sequence

\[
|\log f(z)| = o \quad \text{as} \quad R \to \infty
\]

SECTION II

6. (b) State and prove Hadamard's Three Circle Theorem.

Show that the Diophantinen Problem can be solved for any

6. (a) Product of a line segment whose other points are exterior to \( \Omega \).

5. (a) Let \( n \) be a continuous function which has the

5. (b) Represent \( f(z) \) in the form of canonical product.

4. (a) Show that the circle of convergence of the power series

\[
\sum_{n=0}^{\infty} a_n z^n
\]

SECTION III

4. (b) Show that the circle of convergence of the power series

\[
\sum_{n=0}^{\infty} a_n z^n
\]

3. (a) Let \( n \) be a continuous function which has the

3. (b) Represent \( f(z) \) in the form of canonical product.

2. (b) Define Dini's Theorem.

2. (a) What are Univalent Functions?

SECTION I

9. (a) Find the residues of \( f(z) \) at the poles \( z = n\).

9. (b) What is Dini's Theorem?

8. (d) What is a Harmonic Function?

8. (c) What do you mean by analytic continuation?

8. (e) Whitney's Theorem.

8. (a) What is the order of \( f(z) = e^{\theta z} \) where \( \theta \) is a positive integer.

8. (b) Definition of Harmonic Regions.

8. (c) What is a Harmonic Function?

8. (d) What is a Harmonic Function?
Is it possible that critical point of a non-linear system

\[ \begin{bmatrix} 1 & 0 & 0 \\ 0 & -2 & 0 \\ 0 & 0 & 1 \end{bmatrix} \]

Find fundamental matrix of the system

Give complete definition of a spiral point and also draw its diagram.

Give an example of a differential equation. Construct an example of a differential equation whose solutions have a common zero.

Compute question

Note: Attempt the question in all sections one question from each section. Question No. 1 is compulsory.

Mark: 80
Time: Three Hours

8. (a) Define periodic solution of a system of differential equations and discuss the application of fixed point theorem for such solutions.

(b) Given periodic solution of a system of differential equations

\[ 0 < t', 0 = (t, 0)' = 0, 1 > x > 0, (x)' + n = 0 \]

\[ 0 < t', 1 > x > 0, x' = \frac{\frac{\frac{n}{n^2}}{\frac{1}{1}}}{n} = (x)' \]

9. (a) Solve the boundary value problem that is a solution of the given boundary value differential equation of the given differential equation and
Section I

5. A fundamental set of the corresponding homogeneous linear
non-zero. Construct Green's function (G, ) with the help of
where at least one of (, and one of (, and (, are
1 = (q(x)x + m) (q(x)x + m) (x)m

6. Together with boundary conditions:
0 = (f + ((x)x) + , ![x(t) in ]

7. Given a differential equation:

8. Explain limit cycles and periodic solutions of a system.

9. Critical points of the system and also discuss their
characteristics.

10. Given a non-linear system. Determine the nature of all possible

11. A method to find the stability of a non-linear system.

12. Define Lyapunov function. Discuss in detail Lyapunov's direct
method.

Section II

1. Given a non-linear autonomous system. Define the conditions
when the origin will be a saddle point or such a system.

2. Define a plane autonomous system. State the conditions

3. Prove that ![x(t) in ]

4. Let ![x in ] and ![x in ] be two linearly independent solutions of

Section III

5. Discuss the type and stability of the critical points of

6. Prove the claim.
List the benefits of rainforests.

Define job analysis.

Differentiate between training and development.

Where is HRM? What are its objectives?

Answer the following:

Compuatory Question (Attempt any)

Section A (14 marks each in 7 questions)

Any four questions out of remaining seven (7) questions

Note: There will be either (g) questions in all the first question

Maximum Marks: 80

Time: Three Hours

Paper: MC-201

HUMAN RESOURCE MANAGEMENT

MDE/M-17

Roll No. : 

Total Pages: 3
4. What is HRM? What are the reasons for introduction of HRM?

3. Discuss the various methods of recruitment and selection. Explain the steps in

2. Explain the measures to manage the stress at work.

1. Identify and discuss the challenges before the HRM in

8. What is performance appraisal?

6. Give the meaning of recruitment. Explain the various modern sources of recruitment.

7. Evolution of HRM is comparatively of recent origin. Comment and explain the development of personal management in India.
Answer the following in brief:

1. Compulsory Question (Mandatory)

Note: Attempt five questions in all. Q. No. 1 is compulsory.

Paper: MC-202

INTERNATIONAL BUSINESS ENVIRONMENT

MDE/M-17

4358

4358/2000/KD/698/Trans
4. UNCTAD is one of the least successful international economic institutions. Do you agree with the statement?

Discuss.

5. Critically analyse the contribution of World Bank for developing economies.

6. Why ASEAN is a successful regional economic cooperation?

7. How does EU function? Also discuss the pillars of success.

8. Define foreign exchange rate. What are the determinants of foreign exchange rates?

EU (European Union) and EU (European Union) are the same?

9. There is a huge scope of International business today's scenario. Explain.

10. (a) WTO, (b) GATT, (c) UNCTAD. Which one is better for India? Why?

11. Is the type of technology transfer a country like India? Also discuss.
Write short notes on the following:

1. Compositional Question (4 marks)

1.2. 600'6
1.6. 000'9
1.8. 000'8
2.2. 000'4

Year I

Note: Attempt the questions in all Question No. 1 consisting of 6 marks each is a type answer. Time: Three Hours

Paper: MC-204

FINANCIAL MANAGEMENT & POLICY

4360 MDE/M-17

ROLL No. ...............................................
TOTAL PAGES: +
4. Critics explain the suitability of important methods of financial forecasting. 

3. Define Present Value, and explain the factors affecting Present Value of money.

2. Explain the role and responsibilities of Finance Manager in

1. Critically explain the Miller and Orr model for Cash Flow Management.

8. Two mutually exclusive investment proposals are being considered. The following information is available:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Cash Inflow</th>
<th>Probability</th>
<th>Probability</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6'000</td>
<td>X</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>Project</td>
<td>Project X</td>
<td>Project Y</td>
<td>Project Y</td>
<td>Project Y</td>
</tr>
</tbody>
</table>

5. A company issues 1'000 10% Preference Shares at 2 per share. Calculate Cost of Each Share and 2 per share. Calculate Cost of Each Share Issue is at 3% discount on 10% and

2. Assume cost of capital is 10%.

Which of the project be selected?

- Project I: 20'000
- Project II: 30'000
- Project III: 40'000

- Year 2: 12'000
- Year 6: 9'600

- Year 8: 9'600
- Year 8: 6'000
- Year 2: 6'000
- Year 3: 6'000

1. What do you mean by management of Working Capital?

(5%) 10% of target working capital

(15) 10% of target working capital

(20) 10% of target working capital

(10) 10% of target working capital
I. Composoury Question (Arabic Only)

Explain the following:

(a) Circumstances under which valuation of shares is essential
(b) Advantages of periodic reporting
(c) Differences between Operating Lease and Financial Lease

Note: Attempt five questions in all, including C. No. 1 which is compulsory.

Maximum Marks: 80

Time: Three Hours
14. Explain the provisions of Companies Act regarding payment of management personnel.

4. Explain the method of valuation of human resources as determined by the method.

3. Describe the steps taken at the International level for harmonisation of corporate reporting during the past decades.

2. Explain the usefulness of segmental disclosures to users and other users. What are the difficulties in providing and analyzing segmental information in company annual reports?
A company issued for public subscription 50,000 shares of Rs. 50 each payable as follows:

- On nominal call Rs. 50 each payable as follows:
  - 10 shares for Rs. 10 each
  - 10 shares for Rs. 20 each
  - 20 shares for Rs. 20 each

Excess application money was adjusted against subsequent allotment. Preference application - Pro-Rata Allotment

<table>
<thead>
<tr>
<th>Shares</th>
<th>Received</th>
<th>Allocated</th>
<th>Out of Rs. 50</th>
</tr>
</thead>
<tbody>
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<td>000'000</td>
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<td>000'000</td>
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</tr>
</tbody>
</table>

Application were received for 1,000 shares and allocation was made as under:

- On final call 10 shares
- On first call 10 shares
- On allotment 20 shares

The total application for 50,000 shares amounting to Rs. 2,50,00,000 is

A company issued for public subscription 50,000 shares of Rs. 50 each payable as follows:

- 10 shares for Rs. 10 each
- 10 shares for Rs. 20 each
- 20 shares for Rs. 20 each
(a) Stock of H Ltd. includes £8,000 of stock purchased from S Ltd. at £75 per share in the financial year ended 31 March 2001, in consideration of 800 shares of S Ltd. at the price of £30 per share. The book value (fair market value) of the share was £40 per share. 

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance in H Ltd.</th>
<th>Balance in S Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.2000</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>31.3.2000</td>
<td>280,000</td>
<td>200,000</td>
</tr>
</tbody>
</table>

(b) Stock of H Ltd. includes £4,000 of stock purchased from S Ltd. at the price of £50 per share in the financial year ended 31 March 2001. The book value (fair market value) of the share was £60 per share. 

(c) S Ltd. made a bonus issue during the year and in the second year of operations. 

For sales to H Ltd. on which S Ltd. made a profit of £6,000:

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance in H Ltd.</th>
<th>Balance in S Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.2000</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>31.3.2000</td>
<td>280,000</td>
<td>200,000</td>
</tr>
</tbody>
</table>

On 1-4-2000, profit and loss account of S Ltd. stood.

Other Information:

<table>
<thead>
<tr>
<th>Amount</th>
<th>H Ltd.</th>
<th>S Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bills payable</td>
<td>24,150</td>
<td>44,150</td>
</tr>
<tr>
<td>Cash at bank</td>
<td>80,600</td>
<td>50,600</td>
</tr>
<tr>
<td>Bank balance</td>
<td>3,676,000</td>
<td>3,676,000</td>
</tr>
<tr>
<td>Reserve fund</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Reserve fund</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Current assets</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>
Random, will contain 53 Sundays. 

(i) What is the probability that a leap year, selected at random, will contain 53 Sundays?

(e) From the following, obtain the values of \( r_{12} \) and \( r_{13} \):

\[
P(\text{p} | \text{i}) \]

Poisson distribution

(c) Conditional probability.

(a) Compositions of a line sectors.

(b) Reliability of the estimate.

I. Solve and explain (solve) the following:

(50 points)

**Computer Question (Handin)**

Note: Attempt any five questions including Q No. 1 which is compulsory.

Maximum Marks: 80

**Time:** Three Hours

**Roll No.**

**Paper:** MC-206

**BUSINESS STATISTICS**

**MDE/M-17**
### Problem 1:

Below, find the values of the regression equation of line, and find the mean and standard deviation of the distribution. Assuming a normal distribution, find the mean and standard deviation of the population. Find the mean of the regression equation, where the mean of the population is under 6 inches in a large group of men, and the mean of the population is under 6 inches in a large group of women.  

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
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<tbody>
<tr>
<td>5</td>
<td>6</td>
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<tr>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

### Problem 2:

From the following, determine the regression equation of line, and find the mean of the population.  

\[
0 + 0 = \xi \quad \xi + 0 = \xi \\
0 + 0 = 0 \
\]
1. Attempt a critical appreciation of "Duke in "My Last Duchess."

2. Write a detailed note on the themes and preoccupations of John Keats as a poet.

3. Comment on Robert Browning's parameters of love in the poems presented in your syllabus.

OR

OR

Section A

Discuss Wordsworth as a poet of nature in relation to man.

marks

Note: Attempt five questions in all, choosing at least one from each section. All questions carry equal marks.

100

Maximum marks: 100

Time allowed: 3 hours

Paper III

LITERATURE IN ENGLISH (1789-1949)

OMDE / M-17

Printed Pages: 3

Roll No.:
Section A

5. Discuss the theme of justice and revenge in "Hard Times." OR

6. Write an essay on the role of fate and chance in "Les Miserables." OR

7. What is the central concern of Derrida's essay on "In Aims and the" OR

8. Comment on Flaubert's portrayal of Emma Bovary in "Madame Bovary." OR

9. The short notes (of about 150 words each) on any four of the
following:

(a) Thomas Carlyle
(b) Samuel Taylor Coleridge
(c) William Blake
(d) The Romantic Movement

Section B

2. Critically examine the way in which Dickens attacks the social
3. To what extent is Hamlet a tragedy of reflection and mourning?

Unit-I

Bacon's essays as dispersed meditations.

Imagey in The Duchess of Malfi.

Elegy as a dramatic lyric.

Create a dramatic scene in Hamlet.

Write brief answers of about 150 words each on the following:

Compulsory Question

Your units, attempting the questions in all, candidates may choose one question from each of the units. Besides Question no. 1, which is compulsory, a maximum mark of 80 is allowed. Time allowed: 3 hours.

Paper Course-VI
PART-I EN-521
LITERATURE IN ENGLISH (1550-1660)
CMBE/M-I7

6964

Printed Pages: 2
Roll No.: 6964
Write an appraisal of Bacon's essay, "Of Studies."

Bacon's essays?

What evidence of the Renaissance spirit do you find in

Unit I

Write a character sketch of The Duchess.

of Malater

Critically discuss the plot construction of The Duchess

Unit III

"Morrow."

Write a critical appreciation of the poem, "The Good

Discuss John Donne as a metaphysical poet.

Unit II

(2)
(d) Futility of beauty and lone life in the Vanity of
(e) The Spectator Club

Penny Goodwill in Joseph Andrews
Friday in Robinson Crusoe

Answer in about 150 words

Each of the 5 questions carries 16 marks.

The four units, attempting five questions in all,
candidates shall choose one question from each of

Note: (i) Besides Question no. 1, which is compulsory,
a maximum marks: 80

Time allowed: 3 hours

Paper-Course-VII Opt.-EN-522

(PART-II)

LITERATURE IN ENGLISH-1660-1798

CODE: M-17

Printed Papers: 2

Roll No.

6965
London

9. Why is Thales often called the founder of modern science?

8. What qualities do Johnathan make a neo-classical poet?

Unit I

7. Write a detailed note on Addison's prose style.

6. Discuss Joseph Addison as a literary critic with reference to "Million-I" and "Million-II".

Unit II


Unit III

(2)
UNIT I

9. Write a note on the character of Bertha Bovary in Madame Bovary.

8. Write a note on major themes in Madame Bovary.

UNIT II

5. Write a note on the structure of Hardy's Tess of

A Pure Woman.

4. Discuss the relevance of Tess of D'Urbervilles sub-title

UNIT III

3. Bring out a critical summary of "Rabbi Ben Ezra".

2. Comment on Browning's treatment of love in his poems.

Chances he as a symbol in "Madame Bovary" (d)
Role of Lovers in Arms and the Man (e)
Angel Clare in "Tess of D'Urbervilles" (b)
Use of monodrama in "My Last Duchess" (a)

1. Write short notes on the following:

UNIT IV

marks

 allocator

saving

question
carry

each

unit's

Note: Besides Question no. 1 which is compulsory, candidates

Time allowed: 3 hours

Maximum marks: 80

PAPER VII

PART II (EN-523)

LITERATURE IN ENGLISH-1798-1914

CODE / M-17

Printed Pages: 2

Roll No.
End of A House For Mr. Biswas

or

Mr. Biswas

Symbolic significance of plants in A House For

Beginnings of Kanhapura

or

of

Ending of Kanhapura

Describe Paul's first visit to Willey Farm.

or

Role of Baxter Dawes in Sons and Lovers

or

Ending of Heart of Darkness.

or

Opening of Heart of Darkness.

I. Answer your short answer type questions in about

1. Write five questions in all

the four units, attempting five questions in all

Candidate shall choose one question from each of

Note: (i) Besides Question no. 1 which is compulsory, a

Maximum marks: 80

Time allowed: 3 hours

Paper-X (i) OPR- (i) Part-II EN-525

STUDY OF A GENRE FICTION

CMER / M-17

Printed Pages: 2

Roll No.
पेपर-वि (हि-106)
ब्राह्मण विज्ञान एवं हिंदी भाषा
MDE / M-17

प्रतिफल पृष्ठों की संख्या: 3

ताज्जुब: 80

time allowed : 3 hours
(1)
(2)
(3)
(4)

2. बच्चे के लिए निम्नलिखित विषयों के लिए का उपयोग किया जा सकता है?

(1)
(2)
(3)
(4)

3. यह गणना करें कि 12 क्षेत्रों के लिए कितने माइल दूरी है?

12 क्षेत्रों के लिए कितने माइल दूरी है?

4. क्रमांक की तुलना करें कि 12 क्षेत्रों के लिए कितने माइल दूरी है?

(1)
(2)
(3)
(4)

Time allowed: 3 hours
Maximum marks: 80

PAPER-VII (H-107)
HINDI SAMHITA KALITHAS
MODE / M-17

Printed Pages: 2

ROLL NO. 9696
paper-8th (h-i-o8)

adhinik cadava sathya

made / m-17

print ed pages : 3

roll no.

6997
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4. 8 = 1 × 8

1. (X)

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PAPER-IX (H)-109

AVADHUNIK HINDI KAVYA

MDE / M-17

Printed Pages: 3

Roll No.

[Maximum marks: 80]

Time allowed : 3 hours
סולם ה-

א. ניתן להציב הסולם ה-

ב. ניתן להציב הסולם ה-

ג. ניתן להציב הסולם ה-

ד. ניתן להציב הסולם ה-

ה. ניתן להציב הסולם ה-


c = 1 \times 8

d = 3 \times 12 = 36

e = 5 \times 3 = 15

f (3)

(2)
1. Explain briefly:

(1) If $a + b = c$, find $a$.
(2) If $a \times b = c$, find $a$.

2. All questions carry equal marks.

Note: (i) Attempt five questions in all selecting one question from each unit.

Maximum marks: 80

Time allowed: 3 hours

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Statistics for Economists

Paper:203

Quantitative Methods-II

CODE / M-17

7076

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7. The sales data of an item in six shops before and after a special promotion are as under:

<table>
<thead>
<tr>
<th>Shops</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>58</td>
<td>30</td>
</tr>
<tr>
<td>B</td>
<td>30</td>
<td>55</td>
</tr>
<tr>
<td>C</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td>D</td>
<td>55</td>
<td>36</td>
</tr>
<tr>
<td>E</td>
<td>29</td>
<td>45</td>
</tr>
<tr>
<td>F</td>
<td>45</td>
<td>36</td>
</tr>
</tbody>
</table>

What can the company be judged to be a success? Test at 5% level of significance (t-crit = 2.02)
The probability that it is red
is given in two students a and b.

(1) A problem in statistics is given in two students a and b.

6. The time taken by workers in a production job by method I and method II is given.

UNIT III (SKILLS III)

5. Fill in the distribution table given below.

<table>
<thead>
<tr>
<th>Class Interval</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>2</td>
</tr>
<tr>
<td>2 - 3</td>
<td>4</td>
</tr>
<tr>
<td>4 - 5</td>
<td>6</td>
</tr>
</tbody>
</table>

6. The mean and variance of the distribution

\[ ar{x} = \frac{0 \times 2 + 1 \times 4 + 2 \times 6}{12} = \frac{20}{12} = \frac{5}{3} \]

\[ \text{Variance} = \frac{\sum f(x - \bar{x})^2}{N} = \frac{2 \times (2 - \frac{5}{3})^2 + 4 \times (4 - \frac{5}{3})^2 + 6 \times (6 - \frac{5}{3})^2}{12} \]

The box now one ball is drawn at random from the box.

A box contains 3 red and 2 white balls. One ball is drawn at

A problem in solving the production are 1:2 to 10:11. Problem A and B.

The odds for favor of solving the problem are 6 to 1 and

8 + 8 = 16

(4) A box contains 3 red and 7 white balls. One ball is drawn at

A problem in solving the production are 1:2 to 10:11. Problem A and B.
1. Answer all parts briefly:

8 x 2 = 16

Compulsory Question (All 4 marks)

Note: Attempt five questions in all, selecting at least one from each unit. Time allowed: 3 hours.

Paper-201

MICRO ECONOMIC ANALYSIS-II

MDE-M-17

Roll No: 6971

Primed Pages: 3

Front Page: 4

All questions carry equal marks.

Why the demand for a factor is called derived demand?

What do you mean by value of marginal product?

Define public goods.

Write two examples of negative externality in consumption.

What do you mean by inter-temporal choices?

Give an example of asymmetric information.

What do you mean by operative constraint?

What is meant by diversification?

I
Write a detailed note on Economies of Information.

How are decisions being taken by risk prone neutral and risk averse?

Unit-IA (3-17)

(a) Public Goods
(b) Externalities in Production
(c) Short notes on

How are contributions determined in the Walrasian approach?

Unit-III (3-17)

(a) Why is a factor not the same as a resource?
(b) How are the shares of factors determined per period?

8 x 2 = 16
Paper-204
PUBLIC ECONOMICS
CMDE/M-17

(a) Define risk and uncertainty.

(b) What is social discount rate?

(c) What is harmonisation of indirect taxes?

(i) Define the concept of single peaked preferences.

Note: Attempt five questions in all Question no. 1 is compulsory. Select one question each from each of the four units.

Time allowed: 3 hours
Maximum marks: 80
1. What is social cost benefit analysis? Discuss the procedure of undertaking this analysis.

2. Write a detailed note on the theory of second best.


4. Write a detailed note on the redemption and effects of public debt?

5. When is burden of concurrence of public debt? Discuss the classical

6. Why is management of public debt?
1. Explain the following:

I. Explain the following:

2x6 = 12

Data Mining
Discount Rule
ARR
Smart Cards
E-Commerce
Exponential Growth Rule

Note: Attempt five questions in all, selecting at least one from each unit. Question no. 1 is compulsory.
Unit III

5. Describe the project selection methodologies in brief.

6. Describe the project selection methodologies in brief.

Unit II

4. Discuss the applications of information technology in business.

3. Explain the procedure for construction of index numbers using a software.

2. Discuss the steps involved in computing descriptive statistics.

Unit I

1. How do we conduct a break-even analysis using a spreadsheet?
1. Attempt all the following questions in Brief.

   A) Explain financial indifference point.
   B) Describe features of Optimum Capital Structure.
   C) Discuss various types of Dividend.
   D) Define Financial Management.
   E) Discuss life-cycle concept.
   F) Explain conversion factor.
   G) Explain responsibility accounting.
   H) State objectives of management accounting.

Answer any four questions out of remaining seven.

Note: Attempt four questions in all. No. 1 is compulsory.

Maximum Marks: 80

Time: Three Hours
List the following information is given:

1. Describe the factors influencing dividend decisions.
2. Whether the activity-based costing or the net income method.
3. Which is advantageous, performance evaluation or share price?
4. What is dual reporting risk?
5. Which is activity-based costing or the net income method.
6. Explain the various responsible accounting concepts. What are the fixed costs, and how do they affect the financial statements?
7. The following information is given:
   - The following information is given:
   - The following information is given:
   - The following information is given:

Explain the factors influencing dividend decisions.

1. Describe the factors influencing dividend decisions.
2. Which is advantageous, performance evaluation or share price?
3. Explain the various responsible accounting concepts. What are the fixed costs, and how do they affect the financial statements?
4. List the following information is given:
   - The following information is given:
   - The following information is given:
   - The following information is given:

10×4=40
1. What is the role of UNCTAD in international business?
2. What is International Commercial Agreement?
3. What is Foreign Direct Investment (FDI) and Portfolio Investment (PI)?
4. What is the difference between Foreign Direct Investment and Portfolio Investment?
5. What is the difference between Foreign Direct Investment and International Trade?
6. Why is it important to study the global environment?

I. Answer the following in brief:

Note: Attempt five questions in all. Q. No. 1 is compulsory.

Maximum Marks: 80

Time: Three Hours

MCT-202
ENVIRONMENT
INTERNATIONAL BUSINESS
MODEM-17

ROLL NO. ..................................................
TOTAL PAGES: 04
6. ASEAN is one of the most successful regional economic cooperation. Evaluate this statement.

5. What is Generalised System of Preferences? Why is it important for Indian Economy?

4. Discuss the contribution of World Bank and IMF for developing economy like India. Discuss.

3. Multinational Corporations are boon or bane for environment on International business? Why?

2. What is the impact of economic and socio-cultural environment of countries like China, Japan and Malaysia?

2. Why is SAFTA less successful regional economic cooperation?
MCT-203

STATISTICS ANALYSIS

RESEARCH METHODOLOGY AND

10065

MDE/M-17

ROLL NO. : 04

Total Pages : 04

PART A

Mention the chief features of Wald-Wolfowitz test.

What do you mean by goodness of fit?

What are the parametric tests?

When do we use F-test?

Distinguish between Point & Interval Estimation.

Distinguish between Null & Alternative Hypothesis.

Define Research Design.

What is Scientific method?

Attempt all the parts in any 80 marks:

I. Compulsory Question

Note: Attempt Five questions in all. No. 1 is compulsory.

Maximum Marks : 80

TIME: Three Hours

PART B

Describe briefly how a research report should be prepared.

Summery Report.

Distinguish between an interim report and a final report.

Describe briefly how a research report should be prepared.

Chi-square test.

One-tailed and two-tailed tests.

Write notes on the following:

(a) 65, 68, 43, 31, 38, 32, 50

(b) 32, 33, 26, 45, 31, 37, 38, 27, 22
5. What are non-parametric tests? Briefly describe the process of Wilcoxon's signed-rank test to the second group. To determine whether the first group is superior to the second group, determine whether the first group is superior to the second group by using a t-test with a 0.05 level of significance. Determine if there is any significant difference between the means of the two groups. The mean grade of Group A is 80, while the mean grade of Group B is 70. Is there a significant difference between the means of the two groups? Use the t-test to determine if there is a significant difference between the means of the two groups.

6. Use the rank correlation test at a = 0.01 level of significance. Given as below:

\[
\tau = \frac{12 \sum_{i=1}^{n} r_i - n(n+1)}{n(n-1)}
\]

where \( r_i \) is the rank correlation of the i-th observation and \( n \) is the number of observations. If \( |\tau| \geq 1.96 \), reject the null hypothesis and conclude that there is a significant correlation between the two variables. If \( |\tau| < 1.96 \), fail to reject the null hypothesis and conclude that there is no significant correlation between the two variables.

3. Discuss the factors upon which the choice of a method of data collection for a given research project depend.

(a) What is a Social Distance Scale? Give an example.

(b) If there are two data sets, one that is normally distributed and the other that is skewed, which test would be most appropriate for each data set?

(c) If you were designing a study for the above research, which test would you use and why?

2. Select a research problem and prepare a research design for the study.

Select a research problem and prepare a research design for the study. The research problem is to determine the effectiveness of a new teaching method on student performance. The research design is a pre-test/post-test design with a control group. The intervention group is taught using the new teaching method, while the control group is taught using the traditional teaching method. The pre-test and post-test are administered to both groups. The difference in scores between the pre-test and post-test is used to determine the effectiveness of the new teaching method.

4. On an examination in statistics, 10 students in one class showed a mean grade of 80 with a standard deviation of 10, while 12 students in another class showed a mean grade of 70 with a standard deviation of 8. Discuss the difference between a research abstract and a research article.

(x) Discuss the difference between a research abstract and a research article.

(xi) What is rank correlation test?
Write short notes on the following:

A. Write a compulsion questionnaire for your online advertising.
6. How is Internet influencing marketing planning?

5. What kind of marketing channels come into picture in online marketing? How are these different to those of traditional distribution?

4. How is Internet making an impact on the way marketers research is done? What benefits does it offer? In what ways?

3. How do consumers behave while indulging in online physical retail purchases? How such behavior is different to that during offline purchases?

2. How are marketers finding social networking sites as examples of marketing through such sites? Discuss online suitable business promotion medium.

1. What are the limitations of each marketing technique?
Write four applications of E-commerce in Direct

(i)

What is Open-Security on Smart Card?

(e)

What is News Group?

(d)

Name your search engines.

(c)

Name your cashless transaction methods.

(b)


(a)

Define B2C and its features.

Maximum Marks: 80

Time: Three Hours
2. Define E-Commerce and its classifications.

4. Explain use of E-banking in modern scenario. Discuss security issues related to its use. What are the ethical implications of such practice?

5. In your own perspective, what is future of E-commerce in India?


8. Write your issues in launching an e-business.

(a) How are new laws and regulations going to impact business?

(b) Issues in adopting E-commerce applications

(c) Disaster Recovery

7. When is Cyber-Law? Discuss latest amendments to cyber laws.