NUMS

NATIONAL UNIVERSITY
OF MEDICAL SCIENCES

NUMS-MDCAT
ENTRY TEST – MBBS/BDS
2018

PAPER PATTERN

S/No	Subject	No of MCQs
1.	CHEMISTRY	45
2.	BIOLOGY	70
3.	PHYSICS	45
4.	ENGLISH	20
	TOTAL	180

CHEMISTRY

Detail of Syllabus

PHYSICAL CHEMISTRY

1. Fundamental Concepts
   a. Masses of atoms and molecules
   b. Accurate relative atomic masses
   c. Amount of substance
   d. Mole calculations
   e. Chemical formulae and chemical equations
   f. Solutions and concentration
   g. Calculations involving gas volumes
2. States of Matter
   a. GASES
      (1) Kinetic Molecular Theory of Gases
      (2) Gas Laws: Boyle's Law, Charle's Law, Avogadro's Law and gas equation PV=nRT and calculations involving gas laws
      (3) Deviation of real gases from ideal behavior
      (4) Causes of deviation from ideal behavior
      (5) Dalton's law of partial pressure and its application
   b. LIQUIDS
      (1) Describe simple properties of liquids e.g. Diffusion, compression, expansion, motion of molecules, intermolecular forces and kinetic energy based on Kinetic Molecular Theory
      (2) Physical properties of liquids-evaporation, vapor pressure, boiling point, viscosity and surface tension
      (3) Application of dipole-dipole forces, hydrogen bonding and London forces
      (4) Energetic of phase changes
   c. SOLIDS
      (1) Types of solids
      (2) Properties of crystalline solids
      (3) Crystal lattice

3. ATOMIC STRUCTURE
    a. Discharge tube experiments
    b. Discovery of neutrons
    c. Discovery of nucleus
    d. Bohr's atomic model and its application
    e. Plank's Quantum Theory
    f. X-rays
    g. The Quantum numbers and orbitals
    h. Electronic configuration
4. CHEMICAL BONDING
    a. THEORIES OF COVALENT BONDING AND SHAPES OF MOLECULES
        (1) Shapes of molecules
        (2) Theories of covalent bonding
        (3) Bond energy
        (4) Effect of bonding on the properties of compounds
5. CHEMICAL ENERGETICS
    a. ENTHALPY CHANGES
        (1) Enthalpy changes
        (2) Standard enthalpy changes
        (3) Measuring enthalpy changes
        (4) Hess's law
        (5) Calculating enthalpy change of hydration of an anhydrous salt
        (6) Bond energies and enthalpy changes
        (7) Calculating enthalpy changes using bond energies
    b. LATTICE ENERGY
        (1) Enthalpy change of atomization and electron affinity
        (2) Born Haber cycles
        (3) Factors affecting the value of lattice energy
        (4) Ion polarization
        (5) Enthalpy changes in a solution

6. SOLUTIONS

a. Solution and Colloids

(1) General characteristics of solutions

(2) Concentration units of solutions

(3) Percentage composition

(4) Molarity

(5) Molality

(6) Mole fraction

(7) Parts of million

b. Concept and application of colligative properties

(1) Elevation of boiling point

(2) Depression of freezing point

(3) Osmotic pressure

c. Colloids

d. Properties and types of colloids

7. ELECTROCHEMISTRY

a. Oxidation-Reduction concepts

b. Balancing redox equations by oxidation number change method

c. Breaking a redox reaction into oxidation and reduction reactions

d. Electrode, electrode potential and electrochemical series

e. Types of electrochemical series

f. Industrial process of the electrolysis of brine, using a diaphragm cell

8. CHEMICAL EQUILLIBRIUM

a. CHEMICAL EQUILIBRIUM

(1) Reversible reaction and dynamic equilibrium

(2) Factors effecting equilibrium

(3) Le Chatelier’s principle and its industrial application

(4) Solubility product and precipitation reactions

(5) Common ion effect

b. 2-ACID,BASES AND SALTS

(1) Acidic ,Basic and Amphoteric substances

(2) Bronsted Lowery concepts for acids and bases

(3) Conjugate acid-base pairs

(4) Strength of acids and bases

(5) Lewis definition of acid and base

(6) Buffer solutions and their applications

(7) Salt hydrolysis

9. REACTION KINETICS

a. REACTION KINETICS

(1) Factors affecting reaction mechanisms

(2) Rate of reaction

(3) Rate equations

(4) Order of reaction

(5) Calculations involving rate constant

(6) Deducing order of reaction from raw data

(7) Kinetics and reaction mechanisms

(8) Catalysis

b. FURTHER ASPECTS OF EQUILLIBRIA

(1) Ionic product of water, Kw

(2) pH calculations

(3) Weak acids-using the acid disassociation constant , Ka

(4) Indications and acid base titrations

(5) Buffer solutions

(6) Equilibrium and solubility

(7) Partition coefficient

Inorganic Chemistry

1. s AND p BlOCK ELEMENTS:

a. Physical properties of elements of period 3 and periodicity in the following properties of elements

(1) atomic radius

(2) Ionic radius

(3) Melting point

(4) Boiling point

(5) Electrical conductivity

(6) Ionization energy

2. d AND f BlOCK ELEMENTS:
    a. Introduction
    b. General features
    c. Coordination compounds
    d. Chemistry of transition elements of 3-d series with reference to
        (1) Electronic configuration
        (2) Variable oxidation state
        (3) Use as a catalyst
        (4) Colour of transition metal complexes
3. ELEMENTS OF BIOLOGICAL IMPORTANCE
    a. Nitrogen and Sulfur
        (1) Nitrogen gas
        (2) Ammonia and ammonia compounds
        (3) Uses of ammonia and ammonium compounds
        (4) Sulfur and its oxides
        (5) Sulfuric acid

ORGANIC CHEMISTRY

1. INTRODUCTION TO ORGANIC CHEMISTRY
    a. Representing organic molecules
    b. Functional groups
    c. Naming organic compounds
    d. Bonding in organic molecules
    e. Structural isomerism
    f. Sterioisomerism
    g. Organic reactions-mechanisms
    h. Types of organic reactions
2. HYDROCARBONS
    a. Types of Hydrocarbons
    b. Alkanes and Cycloalkanes
    c. Radical substitution reactions
    d. Oxidation and reduction of organic compounds
    e. Alkenes

f. Alkynes
g. Benzene and subsituted benzenes
h. Molecular orbital treatment of Benzene

3. ALKYLHALIDES
   a. Classification of alkyl halides
   b. Organo -metallic compounds(Grignard's reagent)
4. ALCOHOL,PHENOL AND ETHERS
   a. Nomenclature ,structure and acidity of alcohols
   b. Preparation of alcohols by reduction of aldehydes
   c. Reactivity of alcohols
   d. Chemistry of alcohols by preparation of ethers and esters oxidative cleavage of 1,2-diols
   e. Nomenclature ,structure and acidity of phenols
   f. Preparation of phenols from benzene, sulphonic acid, cholorobenzene, acidic oxidation of cumene and hydrolysis of diamzonium salts
   g. Reactivity of phenols and their chemistry by electrophonic aromatic subsitution, reaction with Na metal and oxidation
5. CARBONYL COMPOUNDS
   a. Aldehyde and ketones
   b. Preparation of aldehyde and ketones
   c. Reduction of aldehyde and ketones
   d. Nucleophilic addition with HCN
   e. Testing for aldehyde and ketones
   f. Reaction to form Tri- iodomethane
   g. Infra red spectroscopy
6. ORGANIC NITROGEN COMPOUNDS
   a. Amines
   b. Formation of amines
   c. Amino acids
   d. Peptides
   e. Reaction of the amides
   f. Electrophoresis
7. CARBOXYLIC ACIDS

a. Preparation of carboxylic acids by Grignard's reagent, hydrolysis of nitrites, oxidation of primary alcohols
b. Reactivity of carboxylic acid
c. Chemistry of carboxylic acid by conversion to acyl halides, acid anhydrides, esters and amides
d. Reactions of carboxylic acid derivatives

8. BIOCHEMISTRY
   a. Carbohydrates
   b. Proteins
   c. Enzymes
   d. Lipids
9. ENVIRONMENTAL CHEMISTRY
   a. Chemistry of Troposphere
   b. Acid rain
   c. Green house effect and global warming
   d. Water pollution and water treatment

List of Topics

(CHEMISTRY)

S / No	TOPIC
	PHYSICAL CHEMISTRY
1.	Fundamental concepts
2.	States of matter
3.	Atomic structure
4.	Chemical bonding
5.	Chemical energetics
6.	Solutions
7.	Electrochemistry
8.	Chemical equilibrium
9.	Reaction kinetics
	INORGANIC CHEMISTRY
1.	s and p Block elements
2.	d and f block elements
3.	Elements of Biological Importance
	ORGANIC CHEMISTRY
1.	Fundamental Principles
2.	Hydrocarbons
3.	Alkyl Halides
4.	Alcohols and Phenols
5.	Aldehydes and Ketones
6.	Organic nitrogen compounds
7.	Carboxylic Acid
8.	Biochemistry
9.	Environmental Chemistry

BIOLOGY
Detail of Syllabus

1. CELL BIOLOGY

a. Cell Structure

(1) Why cells?

(2) Cell biology and microscopy

(3) Animal and plant cells have features in common

(4) Differences between animal and plant cells

(5) Units of measurement in cell studies

(6) Electron microscopy

(7) Ultra structure of an animal cell

(8) Ultra structure of a plant cell

(9) Two fundamentally different types of cells

b. THE MITOTIC CELL CYCLE

(1) Chromosomes

(2) Mitosis

(3) Significance f telomeres.

(4) Stem cells

(5) cancer

2. CELL MEMBRANES AND TRANSPORT

a. Phospholoipids

b. Structure of membranes

c. Cell signaling

d. Movement of substances into and out cells

3. BIOLOGICAL MOLECULES

a. Biological molecules in protoplasms

b. Importance of water

c. Carbohydrates

d. Proteins

e. Lipids

f. Nucleic acids

g. Conjugated molecules

4. MICROBIOLOGY
    a. A CELLULAR LIFE
        (1) Parasitic nature of virus
        (2) Life cycle of bacteriophage
        (3) Life cycle of Human Immunodeficiency Virus(HIV)
        (4) Viral disease
        (5) Prions and viroids
    b. PROKARYOTES
        (1) Taxonomy of prokaryotes
        (2) Archaea
        (3) Bacteria: Ecology and Diversity
        (4) Structure ,shape and size of bacteria
        (5) Modes of nutrition in bacteria
        (6) Growth and reproduction in bacteria
        (7) The bacterial flora of humans
        (8) Control Of harmful bacteria
    c. PROTISTS AND FUNGI
        (1) Protists-The evolutionary relationships
        (2) Major groups of protists
        (3) General characteristics of fungi
        (4) Diversity among fungi
        (5) Importance of fungi
5. KINGDOM ANIMALIA
    a. DIVERSITY AMONG ANIMALS
        (1) Characteristics of animals
        (2) Criteria for animal classification
        (3) Diversity in animals
6. HUMAN PHYSIOLOGY
    a. DIGESTIVE SYSTEM
        (1) Anatomy of digestive system
        (2) Oral cavity
        (3) Stomach
        (4) Small intestine

(5) Large intestine

b. RESPIRATORY SYSTEM

(1) Respiratory system of man

(2) Air passage way and lungs

(3) Mechanism of breathing

(4) Respiratory volumes

(5) Transport of gases

(6) Respiratory disorders(sinusitis ,otitis media)

c. EXCRETION AND OSMOREGULATION

(1) Homeostasis

(2) Excretory system of man

(3) Structure and function of kidney

(4) Disorders of urinary tract

(5) Kidney stones(causes and treatment)

(6) Kidney failure(causes and treatment)

(7) Dialysis mechanism and problems

(8) Kidney transplant, process and problems

d. NERVOUS SYSTEM

(1) Nervous system of man, basic organization and its types

(2) Steps involved in nervous coordination

(3) Neurons (structure and type)

(4) Nerve impulse

(5) Transmission of action potentials between cells-synapse

(6) Sensory Receptors and their working (Receptors for Smell, Taste, Touch and Pain etc.)

(7) Effect of drugs on nervous coordination (Heroine, Nicotine, Caffeine, Alcohol and inhalants-nail polish remover and glue) Disorders of Nervous system

(8) Parkinson’s disease, Alzehmer’s disease, Epilepsy

e. REPRODUCTION

(1) Reproductive system of man

(2) Male reproductive system and its hormonal regulation

(3) Female reproductive system and its hormonal regulation

(4) Disorders of reproductive system(Infertility, Imbalance of Male sex hormones)

(5) Sexually transmitted diseases(Syphilis, Gonorrhea, AIDS)

f. SUPPORT AND MOVEMENT

(1) Human skeleton (Axial skeleton, Appendicular skeleton, Types of joints)

(2) Disorders of skeleton(Disc slip, Spondylosis, Sciatica, Arthritis, Bone fractures)

(3) Muscles(Smooth muscle, Cardiac muscle and Skeletal muscle)

(4) Muscle contraction-Sliding filament model

g. HORMONAL CONTROL

(1) Hormones

(2) Endocrine system of Man (Glands with location, secreations and imbalance)

(3) Pituitary Gland and Role of Hypothalamus

(4) Thyroid, Parathyroid, Pancreas, Adrenal, Gonads, Other Endocrine tissues/cells

(5) Feedback mechanism

h. IMMUNITY

(1) First line of Defence

(2) Second line of Defence

(3) The non-specific Defenses

(4) Third line of Defence

(5) The Specific Defences

7. INFECTIOUS DISEASES

a. Worldwide importance of infectious diseases

b. Cholera

c. Malaria

d. Acquired immune deficiency syndrome(AIDS)

e. Tuberculosis

f. Measles

g. Antibiotics

8. BIOENERGETICS

   a. ENERGY AND RESPIRATION

      (1) The need for energy in living organisms

      (2) Work

      (3) ATP

      (4) Respiration

      (5) Respiration without oxygen

      (6) Respiratory substrates

      (7) Adaptations of rice for wet environments

   b. ENERGY AND RESPIRATION

      (1) The need for energy in living organisms

      (2) Work

      (3) ATP

      (4) Respiration

      (5) Respiration without oxygen

      (6) Respiratory substrates

      (7) Adaptations of rice for wet environments

9. BIOTECHNOLOGY

   a. Gene Cloning (Recombinant DNA Technology and Polymerase Chain Reaction)

   b. DNA Sequencing

   c. DNA Analysis

   d. Genome Maps

   e. Tissue culture

   f. Trangenic Bacteria, Plants and Animals

   g. Biotechnology and Health care

   h. Scope and importance of Biotechnology

10. ECOSYSTEM

   a. MAN AND HIS ENVIRONMENT

      (1) Biogeochemical cycles(Water cycle, Nitrogen cycle)

      (2) The flow of Energy(Productivity, Trophic levels)

      (3) Ecological Succession

      (4) Population Dynamics

(5) Human impacts on his environment

(6) Nuclear Power ,CO2 and Global Warming, Acid Rain, Ozone Depletion, common pollution sources

(7) Environmental Resources and their DepletioB

11. EVOLUTION AND GENETICS

a. EVOLUTION

(1) The concept and evidence of Evolution

(2) Lamarckism

(3) Darwinism

(4) Neo-Darwinism

b. CHROMOSOME AND DNA

(1) Chromosomal theory of inheritance

(2) DNA as Heriditery material

(3) DNA Replication

(4) Mechanism of DNA Replication

(5) Gene Expression

(6) Genetic Code

(7) Transcription

(8) Translation

(9) Regulating Gene Expression

(10) Mutations

(11) (Chromosomal mutations ,Gene mutations)

c. INHERITANCE

(1) Law of Independent Assortment

(2) Probabilities

(3) Incomplete Dominance, Multiple Alleles, Co-dominance

(4) ABO Blood Group system

(5) Rh Blood Group System

(6) Polygenic Inheritance and Epistasis

(7) Gene linkage and crossing over

(8) Sex determination

(9) Sex linkage

(10) X-linked disorders—Colour Blindness, Hemophilia, Muscular Dystophy

List of Topics

(BIOLOGY)

S/No	TOPIC
1.	Cell Biology
2.	Cell membrane and transport
3.	Biological molecules
4.	Microbiology
5.	Kingdom Animalia
6.	Human Physiology
7.	Infectious diseases
8.	Bioenergetics
9.	Biotechnology
10.	Ecosystem
11.	Evolution and Genetics

DETAIL OF SYLLABUS

PHYSICS

1. **PHYSICAL QUANTITIES AND UNITS** a. MEASUREMENTS
    (1) Introduction to Physics
    (2) International system of units
    (3) Base quantities and their units

Mass(kg),length(m),time(t),current(A),temperature(K),luminous intensity(cd)and amount of substance (mol)

2. FORCES
    a. MOTION AND FORCE
        (1) Displacement
        (2) Velocity
        (3) Acceleration
        (4) Velocity-time graph
        (5) Newton's Laws of Motion
        (6) Momentum
        (7) Impulse
        (8) Law of conservation of momentum
3. FLUID-DYNAMICS
    a. Viscous drag and Stoke's Law
    b. Fluid flow
    c. Equation of continuity
    d. Bernoulli's equation
    e. Application of Bernoulli's equation
4. LIGHT
    a. PHYSICAL OPTICS
        (1) Interference of light
        (2) Young's Double-Slit experiment
        (3) Diffraction of light
        (4) Diffraction grating

(5) Diffraction of x-rays by crystals and its use

(6) Polarization

b. OPTICAL INSTRUMENTS

(1) Least distance of distinct vision

(2) Magnifying power and resolving power of optical instruments

(3) Simple microscope

(4) Compound microscope

(5) Speed of light

(6) Principles of fibre optic ,types and its application

5. WAVES

a. WAVES

(1) Describing Waves

(2) Longitudinal and transverse waves

(3) Wave energy

(4) Wave speed

(5) The Doppler effect

(6) Electromagnetic waves

(7) Electromagnetic radiation

(8) Orders of magnitude

(9) The nature of electromagnetic waves

b. STATIONARY WAVES

(1) Free moving to stationary

(2) Nodes and antinodes

(3) Formation of stationary waves

(4) Determining the wavelength and speed of sound

6. RADIOACTIVITY

a. Looking inside the atom

b. Alpha particles scattering and the nucleus

c. A simple model of atom

d. Nucleons and electrons

e. Forces in the nucleus

f. Fundamental particles

g. Discovering radioactivity

h. Radiation from radioactive substances
i. Discovering neutrinos
j. Fundamental families
k. Fundamental forces
l. Properties of ionising radiations

7. DEFORMATION OF SOLIDS
   a. PHYSICS OF SOLIDS
      (1) Deformation caused by a force that is in one dimension
      (2) Tensile / compressive deformation
      (3) Stress
      (4) Stain young ,s modulus and Bulk modulus
      (5) Energy stored in deformed material

8. IDEAL GASES
   a. Particles of gases
   b. Explaining pressure
   c. Measuring gases
   d. Boyle's law
   e. Changing temperature
   f. Ideal gas equation
   g. Modelling gases-the kinetic model
   h. Temperature and molecular kinetic energy

9. HEAT AND THERMODYNAMICS
   a. First Law of thermodynamics
   b. Heat engine
   c. Second law of thermodynamics
   d. Internal energy
   e. Thermodynamic scale of temperature
   f. Petrol engine
   g. Entropy
   h. Environmental crisis as entropy crisis

10. ELECTRONICS
   a. Logic gates
      (6) OR gate

(7) AND gate

(8) NOT gate

(9) NOR gate

(10) NAND gate

b. Oscilloloscope- basic principle and its use

11. CURRENT ELECTRICITY

a. Ohm's Law

b. Solve problems V=IR

c. Combination of resistors

d. Capacitor

e. Combinations of capacitors

12. MAGNETISM AND ELECTROMAGNETISM

a. Magnetic field due to current in

(1) Straight wire

(2) Solenoid

b. magnetic resonance imaging

13. NUCLEAR PHYSICS

a. Energy released in radioactive decay

b. Radioisotopes and their biological use

c. Nuclear radiation detectors

d. GM Tube

e. Wilson cloud chamber

f. Radiation hazards and biological effect of radiation.

14. MEDICAL IMAGING

a. The nature of production of x-rays

b. X ray attenuation

c. Improving x ray images

d. Computed axial tomography

e. Using ultrasound in medicine

f. Echo sounding

g. Ultrasound scanning

h. Magnetic resonance imaging

List of Topics

PHYSICS

S/No	TOPIC
1.	Physical quantities and units
2.	Forces
3.	Fluid dynamics
4.	Light
5.	Waves
6.	Radioactivity
7.	Deformation of solids
8.	Ideal gases
9.	Heat and thermodynamics
10.	Electronics
11.	Current electricity
12.	Magnetism and electromagnetism
13.	Medical imaging
14.	Nuclear Physics

ENGLISH
STRUCTURE OF THE SYLLABUS
F.Sc. and Non-F.Sc.

The English section shall consist of four parts:

Part I:

- The candidate will have to select the appropriate/suitable word from the given alternatives.

Part II:

- It will contain sentences with grammatical errors and the candidate will have to identify the error.

Part III:

- Each Question consisting of a list of four sentences each. The candidate will have to choose the grammatically correct sentence out of the given four options.

Part IV:

- In this part, the candidate will be asked to choose the right synonyms. Four options will be given and He/ She will have to choose the most appropriate one.

Essential Word Power

1.	Acupuncture	2.	Aneurysm	3.	Allay
4.	Aberration	5.	Angina	6.	Altruistic
7.	Abnegate	8.	Anomaly	9.	Ambulatory
10.	Absolution	11.	Anomie	12.	Ameliorate
13.	Abstruse	14.	Antagonist	15.	Amenities
16.	Acclimate	17.	Antibody	18.	Aneurysm
19.	Accolade	20.	Apprehension	21.	Angina
22.	Accrue	23.	Aquaplane	24.	Anomaly
25.	Acquiesce	26.	Aquifer	27.	Anomie
28.	Actuary	29.	Arbiter	30.	Antagonist
31.	Acumen	32.	Arboreal	33.	Antibody
34.	Adamantine	35.	Arcane	36.	Apprehension
37.	Addled	38.	Archives	39.	Aquaplane
40.	Admonition	41.	Articulated	42.	Aquifer
43.	Adroitness	44.	Artifice	45.	Arbiter
46.	Affect	47.	Ascetic	48.	Arboreal
49.	Affinity	50.	Aspersion	51.	Arcane
52.	Akimbo	53.	Assimilate	54.	Archives
55.	Alacrity	56.	Assume	57.	Atrophy
58.	Attire	59.	Audacious	60.	August
61.	Auspicious	62.	Assume	63.	Atrophy
64.	Audacious	65.	August	66.	Amorphous
67.	Amorphous	68.	Analogue	69.	Anaphylactic
70.	Analogue	71.	Assume	72.	Atrophy

73.	Avid
76.	Attire
79.	Botanicals
82.	Braille
85.	Brio
88.	Bacchanal
91.	Contusion
94.	Coquetry
97.	Cordial
100.	Cordiality
103.	Corked
106.	Coquetry
109.	Covert
112.	Coveted
115.	Carapace
118.	Cardigan
121.	Career
124.	Caricature
127.	Cartographer
130.	Carapace
133.	Chiaroscuro
136.	Chimerical
139.	Chivalry
142.	Chromosome
145.	Churn
148.	Chiaroscuro
151.	Chimerical
154.	Collage
157.	Comatose
160.	Comely
163.	Commiserate
166.	Commute
169.	Contemporary
172.	Contiguous
175.	Denomination
178.	Desiccate
181.	Deuce
184.	Devious
187.	Decelerate
190.	Decorum
193.	Decry
196.	Demographics
199.	Demure
202.	Dexter
205.	Diffidence
208.	Diffident
211.	Diligence

74.	Attire
77.	August
80.	Brambles
83.	Bouquet
86.	Broach
89.	Balk
92.	Corollary
95.	Corpuscle
98.	Corollary
101.	Corpuscle
104.	Corroborating
107.	Cosset
110.	Coterie
113.	Crass
116.	Cast
119.	Catalyst
122.	Catharsis
125.	Caulk
128.	Centennial
131.	Chastise
134.	Chutzpah
137.	Clamorous
140.	Claret
143.	Classic
146.	Classical
149.	Clement
152.	Chutzpah
155.	Compact
158.	Compatible
161.	Complacent
164.	Concerted
167.	Conciliatory
170.	Contrive
173.	Contravention
176.	Dale
179.	Dam
182.	Dappled
185.	Dark horse
188.	Deadhead
191.	Deferential
194.	Deferment
197.	Delegate
200.	Discombobulate
203.	Discourse
206.	Discrepancy
209.	Discretion
212.	Disdain

75.	Audacious
78.	Articulated
81.	Bowdlerize
84.	Brassy
87.	Broadside
90.	Bray
93.	Cachet
96.	Caesarean
99.	Caliph
102.	Calisthenics
105.	Camber
108.	Cameo
111.	Capital
114.	Cachet
117.	Craven
120.	Crescent
123.	Criterion
126.	Cue
129.	Cygnet
132.	Craven
135.	Close
138.	Coast
141.	Cobble
144.	Coccyx
147.	Coercive
150.	Close
153.	Coast
156.	Condone
159.	Confiscatory
162.	Confound
165.	Congeal.
168.	Congruent
171.	Cynical
174.	Dulcet
177.	Downy
180.	Dunce
183.	Droll
186.	Duplicitous
189.	Debility
192.	Debunk
195.	Debut
198.	Decant
201.	Disingenuous
204.	Dissension
207.	Dissent
210.	Dissenter
213.	Dissonance

214.	Divagate
217.	Divulge
220.	Elucidate
223.	Elusive
226.	Embed
229.	Embedded
232.	Ennui
235.	Epicenter
238.	Equipoise
241.	Equivocate
244.	Excavate
247.	Execrable
250.	Exhortation
253.	Extrinsic
256.	Fabricate
259.	Facile
262.	Facilitate
265.	Fateful
268.	Florid
271.	Fop
274.	Finagle
277.	Gable
280.	Galvanize
283.	Gambit
286.	Garnish
289.	Gradient
292.	Grapevine
295.	Hackles
298.	Hail
301.	Hammer and tongs
304.	Harangue
307.	Hiatus
310.	Holistic- medicine
313.	Homeopathy
316.	Hone
319.	Imprecation
322.	Impregnable
325.	Improvise
328.	Inertia
331.	Infallible
334.	Inscrutable
337.	Inter
340.	Intransigent
343.	Intrinsic
346.	Idealist
349.	Ilk
352.	Illicit

215.	Diligent
218.	Docent
221.	Emblazon
224.	Emblematic
227.	Emboss
230.	Emit
233.	Empathy
236.	Ergometer
239.	Eschew
242.	Espalier
245.	Ethic
248.	Exonerate
251.	Exploitation
254.	Extemporaneous
257.	Fawning
260.	Feasible
263.	Feckless
266.	Felicitous
269.	Flaun
272.	Flux
275.	Forswear
278.	Gaudy
281.	Genocide
284.	Gesticulate
287.	Gild
290.	Guileless
293.	Guise
296.	Gridlock
299.	Hawk
302.	Hector
305.	Heinous
308.	Herbicide
311.	Horse latitudes
314.	Hue and cry
317.	Humane
320.	Impute
323.	Incarnate
326.	Incentive
329.	Infidel
332.	Infusion
335.	Inherent
338.	Innocuous
341.	Itinerant
344.	Isotroplc
347.	Immobilize
350.	Immolate
353.	Impediment

216.	Dote
219.	Effect
222.	Effervescent
225.	Electrolytes
228.	Emulate
231.	Encumber
234.	Encyclical
237.	Enhance
240.	Euphonious
243.	Evanescent
246.	Evasive
249.	Evocative
252.	Extrapolate
255.	Extricate
258.	Felicity
261.	Feral
264.	Fermentation
267.	Fiesta
270.	Figment
273.	Filigree
276.	Frowsy
279.	Glaucoma
282.	Glaze
285.	Glib
288.	Glucose
291.	Gull
294.	Guru
297.	Green
300.	Herculean
303.	Hermetic
306.	Heterogeneous
309.	Hypertension
312.	Hypothermia
315.	Hydra
318.	Importune
321.	Incisive
324.	Inculcate
327.	Indigent
330.	Ineradicable
333.	Innovate
336.	Inoculate
339.	Inordinate
342.	Inquisition
345.	Irrefutable
348.	Impetuous
351.	Impetus
354.	Impinge

355.	Imam
358.	Jackknife
361.	Jaded
364.	Jargon
367.	Jell
370.	Jeopardy
373.	Jettison
376.	Jig
379.	Ken
382.	Laud
385.	Lee
388.	Lemming
391.	Lacerating
394.	Laconic
397.	Lampoon
400.	Macrame
403.	Magnanimous
406.	Magnum
409.	Malevolence
412.	Maneuver
415.	Manicured
418.	Manifestation
421.	Misanthropy
424.	Misapprehension
427.	Mitigation
430.	Modish
433.	Monolithic
436.	Monotheism
439.	Myriad
442.	Macrame
445.	Nip and tuck
448.	Nuance
451.	Obeisance
454.	Obliterate
457.	Obsequious
460.	Obstreperous
463.	Obtuse
466.	Platonic
469.	Pollex
472.	Pomp
475.	Portmanteau
478.	Platonic
481.	Pad
484.	Paddy
487.	Palatable
490.	Palaver
493.	Palazzo

356.	Impending
359.	Jihad
362.	Jingoism
365.	Jitney
368.	Jocular
371.	Jocund
374.	Journeyman
377.	Jubilee
380.	Kismet
383.	Litter
386.	Liturgy
389.	Lucidity
392.	Lapidary
395.	Largess
398.	Ligament
401.	Matriculation
404.	Mausoleum
407.	Maverick
410.	Mean
413.	Medley
416.	Menial
419.	Mentor
422.	Moot
425.	Morass
428.	Moratorium
431.	Mordant
434.	Mosaic
437.	Mosey
440.	Mote
443.	Nary
446.	Nexus
449.	Niche
452.	Odometer
455.	Onerous
458.	Onslaught
461.	Onyx
464.	Opaque
467.	Portray
470.	Postulate
473.	Potable
476.	Potpourri
479.	Precipitate
482.	Premise
485.	Premonition
488.	Preplate
491.	Prevail
494.	Prevalent

357.	Implacable
360.	Judicious
363.	Juncture
366.	Junket
369.	Junta
372.	Justify
375.	Juxtapose
378.	Judicial
381.	Kiln
384.	Lissome
387.	Lipid
390.	Lion's share
393.	Lathe
396.	Latent
399.	Lulu
402.	Lineage
405.	Meritorious
408.	Mesa
411.	Mesmerize
414.	Metabolism
417.	Microcosm
420.	Militate
423.	Mirth
426.	Motif
429.	Motley
432.	Mountebank
435.	Mumbo jumbo
438.	Murky
441.	Muse
444.	Must
447.	Nike
450.	Nuclear family
453.	Opportune
456.	Optimum
459.	Orb
462.	Orthodox
465.	Overdraft
468.	Précis
471.	Preclude
474.	Precursor
477.	Predatory
480.	Pre-emptive
483.	Primal
486.	Privation
489.	Procure
492.	Prodigious
495.	Prolific

496.	Palpitation
499.	Pampas
502.	Pan
505.	Peerless
508.	Pending
511.	Peninsula
514.	Perfidious
517.	Perfunctory
520.	Perimeter
523.	Peripheral
526.	Periphery
529.	Permeate
532.	Putrid
535.	Quadriceps
538.	Quagmire
541.	Querulous
544.	Robust
547.	Roil
550.	Roster
553.	Resuscitate
556.	Retrench
559.	Red herring
562.	Redolent
565.	Regime
568.	Regnant
571.	Relegate
574.	Relief
577.	Sagacity
580.	Sampler
583.	Sanatorium
586.	Sanctity
589.	Sandbagger
592.	Sanguine
595.	Sarong
598.	Satiate
601.	Squander
604.	Stalwart
607.	Stanch
610.	Staples
613.	Static
616.	Stay
619.	Stentorian
622.	Steppe
625.	Sticky wicket
628.	Stilted
631.	Stratagem
634.	Taboo

497.	Prig
500.	Parcel
503.	Pare
506.	Parlous
509.	Paroxysm
512.	Pathos
515.	Patisserie
518.	Pedestrian
521.	Permutation
524.	Peroration
527.	Perpetuate
530.	Perseverance
533.	Perspicacious
536.	Queue
539.	Quorum
542.	Remedial
545.	Renovate
548.	Repute
551.	Resonance
554.	Resound
557.	Radiant
560.	Rakish
563.	Rapacious
566.	Rapport
569.	Raze
572.	Reactionary
575.	Satire
578.	Scam
581.	Sceptic
584.	Sciatica
587.	Score
590.	Scorned
593.	Scruple
596.	Scrutinize
599.	Septic
602.	Shrapnel
605.	Sidle
608.	Siesta
611.	Silhouette
614.	Singe
617.	Splotch
620.	Spurious
623.	Stimuli
626.	Stipulate
629.	Stoicism
632.	Tank
635.	Tactile

498.	Proponent
501.	Proscription
504.	Provender
507.	Provident
510.	Provocative
513.	Prowess
516.	Prune
519.	Purchase
522.	Phlegmatic
525.	Piety
528.	Pilaster
531.	Placate
534.	Plague
537.	Quarter
540.	Queasy
543.	Riff
546.	Ruddy
549.	Rue
552.	Ruminant
555.	Restitution
558.	Reclamation
561.	Reclusive
564.	Reconnoitre
567.	Rectify
570.	Recapitulate
573.	Reciprocal
576.	Scuttle
579.	Sear
582.	Sec
585.	Sedate
588.	Sediment
591.	Segment
594.	Seminary
597.	Sensibility
600.	Surplice
603.	Surrealism
606.	Surrealistic
609.	Swivel
612.	Sycophantic
615.	Symbiosis
618.	Superficial
621.	Superfluous
624.	Supposition
627.	Subdivision
630.	Succumb
633.	Tariff
636.	Venomous

637.	Verve
640.	Viability
643.	Vintage
646.	Virago
649.	Virulent
652.	Voracious
655.	Venality
658.	Wry
661.	Xenophobic

638.	Vascular
641.	Vegetate
644.	Vendetta
647.	Veneer
650.	Venerable
653.	Vista
656.	Vociferous
659.	Woof
662.	Xeric

639.	Ventricle
642.	Veracity
645.	Vertex
648.	Voracious
651.	Vortex
654.	Vulcanize
657.	Wan
660.	Wheedle