SAMPLE QUESTIONS

Sample Questions for LL.M.

Part – I: Constitutional Law and Current Affairs

1. The doctrine of "Basic Structure of the Constitution" was propounded by the Supreme Court of India in
   A) Shankari Prasad v. Union of India, AIR 1951 SC 458
   B) Golaknath v. State of Punjab, AIR 1967 SC 1643
   C) Kesavananda v. State of Kerala, AIR 1973 SC 1461
   D) Minerva Mills v. Union of India, AIR 1980 SC 1789
2. The President of India may make a proclamation under Article 356 as to the breakdown of constitutional machinery in a State.
   A) When he is personally satisfied as to them circumstances.
   B) When he is advised by the Prime Minister to do so.
   C) When he is advised by the Union Council of Ministers.
   D) When he receives a report from the Chief Election Commission.
3. The President of India, in the matters of appointment of Judges of a High Court :
   A) Is not obliged to consult any Judge of Supreme Court or High Court.
   B) Is bound by the advice of the Governor of a State
   C) Must give primacy to the opinion of the Chief Justice of India.
   D) Is not bound to consult the Chief Justice of India.
4. Right to education has been included in the constitution by
   A) 86th Amendment
   B) 100th Amendment
   C) 87th Amendment
   D) 94th Amendment
5. Ordinance can be promulgated by the president of India if,
   A) Both the Houses of Parliament are in session
   B) Both the Houses of Parliament are not in session
   C) Either of the Houses is not in session.
   D) None of the above.
6. How many amendments have been carried out in constitution of India?
   A) 109
   B) 106
   C) 99
   D) 94
7. The tenure of Jammu and Kashmir Assembly is
   A) 5 Years B) 6 Years
   C) 7 Years D) None of the above
8. The attempt to suicide is no more punishable. Which section of the IPC was declared unconstitutional and hence void by the Supreme Court in April, 1994?
   A) 302
   B) 303
   C) 304
   D) 309
9. The newly elected President of USA Barack Obama belongs to which political party.
   A) Republican
   B) Democratic.
   C) Communist
   D) None of the above
10. Since August 1994, the rupee has been made fully convertible in :
   A) The capital account
   B) The capital and saving account
   C) The saving account
   D) The current account

Part– II: Substantive Law

Commercial Law (Law of Contract and Company Law)

1. A contract entered into without 'Free Consent' is :
   A) Void
   B) Voidable
   C) Valid
   D) Illegal
2. Property insurance is a contract of :
   A) Indemnity
   B) Contingent contract
   C) Wagering agreement
   D) Guarantee
3. Creditor, on default by the principal debtor, can file suit against:
   A) Secured property
   B) Principal debtor alone
   C) Surety and principal debtor;
   D) All the above jointly.
4. A company is a Government Company only if :
   A) All the shares of the company are held by Central or State Government;
   B) At least 25% of Shares are held by Central or State Government;
   C) Majority of Shares are held by Central or State Government or both;
   D) Majority of Directors are appointed by the Central or State Government
5. Annual general meeting of a company is to be held with a gap between two consecutive meetings of successive Years;
   A) Of not more than twelve month;
   B) Of not more than twenty four months;
   C) Of not more than fifteen months;
   D) Any time but less than twenty four months

Family Law

1. Which of the following is valid marriage under the Hindu Marriage Act. 1955?
   A) H, a male Hindu aged 35 marries W who is a deserted wife of B, who had filed a suit for divorce and suit is still pending
   B) H, a male Hindu aged 36 marries a second wife with the consent of his first wife who has not been able to have a child for the last 10 Years
   C) H, a Brahmin Male aged 30, marries a Buddhist girl aged 18
   D) H, an idiot male Hindu aged 27 marries W, a Hindu female Lunatic
2. Which of the following is valid adoption under the Hindu Adoption & Maintenance Act, 1956?
   A) H, a male Hindu aged 26 adopts a daughter aged 6
   B) H, a male Hindu and his wife adopt a son aged 16
   C) H, a male Hindu aged 40 adopted a son aged 5, after his natural born son migrated to the U.S.A.
   D) H, a Hindu bachelor aged 25 adopts a son aged 3
3. Which of the following is Hindu under the Hindu Law?
   A) A is born of Hindu father and Christian mother and brought up as a Christian
   B) A is born of Hindu father and Buddhist mother
   C) A is born of Muslim father and Parsi mother'
   D) A is born of Christian father and Muslim mother
4. Which of the following relatives will succeed to the Property of H, a Hindu male under the Hindu Succession Act 1956 after his death?
   A) Daughter B) Father
   C) Brother D) Sister
5. Which of the following is SAHI NIKAH (valid marriage) under the Mohammedan Law?
   A) M, a Mohammedan male aged 30 married W, a Muslim woman under-going Iddat
   B) M, a Mohammedan male aged 27, married W, a Muslim woman in a desert, without any witness
   C) M, a Mohammedan male aged 35, married his wife's sister
   D) M, a Mohammedan male aged 41, married W, a Muslim female aged 21 as second wife without the consent and against the wishes of his first wife

Law of Torts

1. The defense of *Volenti non fit injuria* is available in :
   A) Rescue cases
   B) Help cases
   C) Negligence cases
4. Malice/evil motive is relevant in :
   A) Negligence
   B) Defamation
   C) Vicarious Liability
   D) Nuisance

D) Unlawful acts

2. The test of reasonable foreseeability was laid down in :
   A) Re Polemis case
   B) Donoghue v. Stevenson
   C) Rylands v. Fletcher
   D) Ashby v. White
3. There is physical harm to the plaintiff in :
   A) Assault B) Defamation
   C) Nervous shock D) None of these
5. Tort is :
   A) A wrong against the Society
   B) Statutorily defined in the Limitation Act
   C) A codified branch of law
   D) A civil wrong based on the agreed obligations

Legal Theory

1. Who observed that International Law is the vanishing point of jurisprudence?
   A) Austin B) Salmond
   C) Starke D) Holland
2. Identify the Jurist who defined Law as "the form of the guarantee of the conditions of life of society, assured by the states' power of constraint":
   A) Roscoe Pound B) Holmes
   C) Ihering D) Salmond
3. Realist theory of law emphasizes on:
   A) Social function of law
   B) Human factors in law
   C) Social criterion of validity of law
   D) Essentiality of law for social life
4. According to Hohfield, the jural opposite of 'Power' in the context of his analysis of legal right in the wider sense is :
   A) Liability
   B) Disability
   C) Duty
   D) Immunity
5. Possession is said to be ownership on the defensive by :
   A) Savingny
   B) Salmond
   C) Ihering
   D) Gray

Public International Law

1. 'International Law may be defined in broad terms as the body of general principals and specific rules which are binding upon the members of the international community in their mutual relations'
   A) Oppenheim B) Lawrence
   C) Brierly D) Fenwick
2. 'The duties and rights of the States are only the duties and rights of men who compose them' :
   A) Kelsen B) Westlake
   C) Hall D) Starke
3. 'A State is, and becomes an international person, through recognition only and exclusively':
   A) Oppenheim
   B) Anzilotti
   C) Holland
   D) Pitt Corbett
4. "The rebus sic stantibus doctrine is one of the enigmas of International Law" who said
   A) Starke
   B) Edward Collin
   C) Oppenheim
   D) Anzilotti.
5. 'From the theoretical point of view, the provision for applying 'the General Principles of Law' has been regarded as sounding the death-knell of positivism':
   A) Lauterpacht
   B) C.C.Hyde
   C) Starke
   D) Triepel

Indian Penal Code

1. P, a Pakistani, fires at A, an Indian, standing on the no-man's land. A runs and dies on the Indian territory:
   A) P has committed no offence
   B) P is liable for murder
   C) P is liable for attempt to culpable homicide
   D) P is liable for attempt to grievous hurt.
2. With an intention to kill B administers sugar mistaking it for arsenic :
   A) P has committed no offence
   B) P is liable for attempt to murder
   C) P is liable for culpable homicide
   D) P is liable for grievous hurt.
3. P intentionally gives a sword cut to A. A subsequently dies of septic meningitis which developed on account of use of wrong remedies and neglect of treatment:
   A) P is liable for murder
   B) P is liable for culpable homicide
   C) P is liable for grievous hurt
   D) P is liable for simple hurt
4. P, a stoutly built man comes with a lathi in his hand. P picks up the bag of A who being weak person does not resist :
   A) P is liable for theft
   B) P is liable for robbery
   C) P is liable for extortion
   D) None of the above
5. P threatens A with a pistol and puts his hand in A's pocket which is empty :
   A) P has committed no offence
   B) P is liable for attempt to theft
   C) P is liable for attempt to robbery
   D) P is liable for attempt to extortion

Transfer of Property Act

1. Which of the following is a non-transferable property under the T.P.Act:
   A) Actionable claim
   B) Mortgagor's right to redeem
   C) Lessee's right under the lease
   D) Right of an occupancy tenant
2. The Supreme Court has held, that the rule *of lis pendens* equally applies to involuntary transfers, in the case of
   A) Kedar Nath Vs. Sheo Narain AIR 1970 S.C. 1717
   B) Narayana Rao Vs. Basavarajappa AIR 1956 S.C.727
   C) Vidhyadhar Krishnarao Mungi Vs. Usman Gani Saheb AIR 1974 S.C.685
   D) Beepathuma Vs. Velasari Shankra-Narayana Kadambolithaya AIR 1965 S.C.241
3. Where a mortgagor personally binds himself to repay; the mortgage money by a certain date and possession of the property is delivered to the Mortgagee, the mortgage shall be recognized as :
   A) Simple mortgage
   B) English mortgage
   C) Usufructuary mortgage
   D) Anomalous mortgage
4. The Transfer of Property Act applies to transfers :
   A) By operation of Law
   B) By act of parties
   C) By the Government
   D) By parties who are Muslims
5. The rule that every transaction involving transfer of property is to be treated as single unit is the basis of
   A) The rule of apportionment
   B) The rule of *lis pendens*
   C) The rule of election
   D) The rule of contribution

Industrial Disputes Act

1. The Industrial Disputes Act, 1947 aims at :
   A) Providing social security benefits to the workmen
   B) Regulating conditions of work in industries
   C) Investigation and settlement of industrial disputes
   D) Regulating the employment of women during certain periods
2. Retrenchment means :
   A) Refusal by an employer to continue to employ a workman
   B) Termination by the employer of the service of a workman for any reason whatsoever
   C) Inability on the part of employer to provide employment to the workman
   D) Voluntary retirement of a workman
3. The power of the Appropriate Government under Section 10 to refer industrial disputes for adjudication is :
   A) An administrative power
   B) Legislative power
   C) Judicial power
   D) Quasi-judicial power
4. Lockout is :
   A) For trade reasons
   B) An act on the part of employer taken to coerce or pressurize the labour
   C) Not an intentional act
   D) Not concerned with industrial dispute

   Strike means :
5. A) Mere cessation of work
   B) Cessation of work under common understanding
   C) Cessation of work coupled with gherao of management
   D) Slowing down production

Sample Questions for Master of Computer Applications (MCA)

1. Which of the following is NOT a language processor?
   A) Compiler
   B) Loader
   C) Interpreter
   D) Assembler

2. Which of the following is NOT an Internet protocol?
   A) LTP
   B) SMTP
   C) HTTP
   D) ATM

3. The sequence that is in ascending order in size is
   A) bit, word, byte, nibble
   B) nibble, byte, bit, word
   C) nibble, bit, word, byte
   D) bit, nibble, byte, word

4. Total number of ways in which four boys and three girls can sit in a row so that boys and girls have alternate seats is
   A) 72
   B) 144
   C) 288
   D) 720

5. If the word MANMOHANWASHERE corresponds to ZOAABVNBJOFVRFR, then the word that corresponds to LRF is
   A) HEY
   B) MAN
   C) GOT
   D) YES

6. Two persons Ram and Shyam sort the letters at constant rate. Ram sorts L letters in 60 minutes while Shyam takes 30 minutes to sort L letters. The total time taken by both of them in sorting L letters working together but independently is
   A) 10 min
   B) 20 min
   C) 15 min
   D) 45 min

7. The remainder obtained on dividing 2^{1680} by 1763 is
   A) 1
   B) 3
   C) 13
   D) 31

8. The area bounded by the curve , $y=(x+1)^2$, its tangent at (1, 4) and the x – axis is
   A) 1/3
   B) 2/3
   C) 1
   D) 4/3

9. The median of 25,13,4,6,3,11,15,10 is
   A) 4.5
   B) 6.0
   C) 10.5
   D) 5.0

Sample Questions for M.A. Journalism and Mass Communication

1. Write about 150 words each on any two of the following: (16 Marks)

a) American Presidential elections
b) Budget 2008-09
c) Patriotism in Indian Cinema
d) Beijing Olympics 2008

2. Rewrite the passage in 200 words: (8 Marks)

It was a cold, windy, stormy, night where the wind was blowing very strongly. The driver of the truck was driving very fast on the wet road at a speed of over 150 km per hour. He did not see the branch of the tree lying on the wet road until he was almost upon it. He braked very hard. Because he braked very hard, the tyres skidded and he lost control and the truck crashed into the ditch on the side of the road.

Eye witnesses said that the truck was being driven at very high speed because of which the driver lost control. Fortunately no one was killed. The driver escaped with minor injuries as he managed to jump out of the truck before it turned turtle into the ditch.

Other than the fact of over speeding, blame can also be placed at the hands of the municipal authorities. The trees lining the stretch of the main road running through the city is lined by trees that are over a 100 Years old. What compounds the problem is that these trees are not pruned and they are a source of danger not only to vehicles but also the pedestrians. Many representations have been made to the authorities to uproot these old trees that are many decades old and to replace them with young saplings, particularly of a species that has hard wood.

There is also no check post on this part of the road to check over speeding. This can prove dangerous especially on days that the weather is bad as people tend to drive very fast here as the stretch of the road here is straight and wide and people tend to over speed here. Also the streetlights also do not function always causing many accidents.

3. Write about 150 words each on two of the following: (16 Marks)

A) Dr. Manmohan Singh
B) Young Turks in Indian Politics
C) Your role model
D) Sachin Tendulkar

4. English Comprehension: (4 x 5 Marks)

(I). Use the following words in sentences: (5 marks)

A) Criterion
B) Fallacious
C) Discrepancy
D) Voluble
E) Appease

(II). Use the following idioms/phrases in sentences: (5 marks)

A) Success is somebody else's failure
B) To be or not to be
C) A moot point
D) The pros and cons
E) Every cloud has a silver lining

(III). If an underlined word or phrase is incorrect, choose that letter; if the sentence is correct, select No error. (5 marks)

1. The region has a climate so severe that (A) plants growing there (B) rarely had been (C) more than twelve inches high (D). No error (E).

2. We admired (A) his many (B) attempts bravely to (C) enter (D) the burning building. No error (E).

3. We must regard (A) any statement about this controversy, whatever (B) the source, as (C) gossip until they are (D) confirmed. No error (E).

4. She is the only (A) one of the applicants who (B) are (C) fully qualified (D) for the position. No error. (E)

5. That book is liable to become a bestseller because it is well written, full of suspense
A B C
and very entertaining. No error.
D E

(III). Tick one of the options for filling in the blanks in each sentence: (5 marks)

1. In giving a speech, the speaker's goal is to communicate ideas clearly and _____, so that the audience will be in no _____ about the meaning of the speech.
   A) effectively … haste
   B) indirectly … distress
   C) unambiguously … confusion
2. The commission of inquiry censured the minister for his _____ expenditure of public funds, which they found to be _____.
   A) improper … vindicated
   B) lavish … unjustifiable
   C) arbitrary … critical
3. Pain is the body's early warning system: loss of _____ in the extremities leaves a person _____ injuring himself unwittingly.
   A) agony … incapable of
   B) feeling … habituated to
   C) sensation … vulnerable to
4. Fortunately, she was _____ her accomplishments, properly unwilling to _____ them before her friends.
   A) deprecatory about … flaunt
   B) excited by … parade
   C) uncertain of … concede
5. Although its publicity has been _____, the film itself is intelligent, well-acted, handsomely produced and altogether _____.
   A) tasteless … respectable
   B) perfect … spectacular
   C) sophisticated … amateur

5. Interpretative passage (5 Marks)

The most curious fact about the detective story is that it makes its greatest appeal precisely to those classes of people who are most immune to other forms of daydream literature. The typical detective story addict is a fairly successful professional man with intellectual interests and well read in his own field, who would never read gossipy movie magazines or comics.

It is sometimes said that detective stories are read by respectful, law-abiding citizens in order to gratify, in fantasy, the violent wishes they dare not translate into action, but it is quite false. Detective fiction is a work of art where the author skillfully holds the attention of the reader, never letting him be sure, making him suspect every character by turn, until the last page, where the real culprit is revealed. All classics in detective fiction, 'Crime and Punishment', 'The Trial' etc. are examples of this. Of course, there is pulp literature also where the authors just churn out cheap stories based on a standard formula of sex, blood and violence.

I) The word "curious" in line 1 means:
   A) Inquisitive
   B) Unusual
   C) Prying

II) The author asserts that readers of detective fiction are:
   A) People bent on satisfying an unconscious thirst for blood
   B) Dreamers unable to face the monotony of everyday reality
   C) Believers in a story well told

III) The opening paragraph suggests that the author considers movie magazines and comics to be:
   A) Sources of factual data about society
   B) Less addictive than detective fiction
   C) The typical literary fare of professionals

IV) The author's attitude to detective fiction can best be described as:
   A) Profound veneration
   B) Genuine appreciation
   C) Aloof indifference

V) The author emphasizes classic detective fiction as one that is:
   A) Free of cheap gimmicks
   B) Marked by suspense
   C) Moves in a chronological manner

SAMPLE QUESTIONS FOR MASTER OF PUBLIC HEALTH

Q1) Which is the source of Chlorofluorocarbons?
A. Thermal Power Plants
B. Automobiles
C. Refrigeration and Air – conditioning
D. Fertilizers

Q2) Among cereals and millets richest source of calcium is:
A. Rice
B. Bajra
C. Maize
D. Ragi

Q3) Bissinosis is common in:
A. Farmers
B. Textile Industry
C. Gold mine
D. Cement factory

Q4) The most populous state in India is:
A. Uttar Pradesh
B. Bihar
C. Madhya Pradesh
D. Kerala

Q5) A doctor suggested to a couple not to have more than one child because of
A. Rh+ male Rh- female
B. Rh- male Rh+ female
C. Rh+ male Rh+ female
D. Rh- male Rh- female

Q 6) Acquired immunity is found in
A. Invertebrates
B. Vertebrates
C. Some Invertebrates
D. Both vertebrates and invertebrates

Q 7) The incubation period of rabies ranges from –
A. 1 to 2 days
B. 3 to 4 days
C. 5 to 6 days
D. 10 days to 1 Year

Q 8) At birth immunization required is
A. BCG and OPV-O
B. DPT-1
C. DPT-1 and OPV-1
D. Measles

Q9) Anthracosis is caused due to
A. Coal Dust
B. Silica
C. Fe
D. Tobacco

Q 10) Gini Index is associated with
A. Distribution of diseases
B. Distribution of Income
C. Distribution of deaths
D. Distribution of pollutants

SAMPLE QUESTIONS FOR M.A. (English)

I. Write an essay within 400 words, taking a position 'For'or 'Against'on the topic given below:

The study of humanities is essential today.

OR

India has a bright future. (25 marks)

II. Read the poem given below and answer the questions that follow:

My Heart Leaps Up

My heart leaps up when I behold
A rainbow in the sky;
So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
Or let me die!
The Child is father of the Man;
And I could wish my days to be
Bound each to each by natural piety.

A. The poet could have used some other word instead of 'behold'. Why is this word used?
B. Point out any literary device from the poem.
C. Explain the meaning of line seven in your own words.
D. How does the title fit the ideas expressed in the poem? (20 marks)

III. Write a précis of the passage given below, reducing it to one-third of its length. Give a suitable title. Make sure you write one word in each box in the answer sheet:

Even before Independence, India sustained a small and vibrant scientific community with a few, but outstanding contributions to its credit. This was managed in spite of the object poverty and widespread illiteracy that discouraged education of any kind, let alone advanced studies in science and technology. Out people might have missed the Industrial Revolution and its economic and social consequences, but not the revolutionary changes that were then taking place in science. Thus, in August 1947, a newly-independent India inherited a science community to work with. New laboratories were built; a new science department of the government formed and also commissions to harness the power of atom and space. The Government of the day came out with innovations to free science organizations from the rigid and crippling bureaucratic rules and procedures that were then the norms. As though to underline the importance of science further, Jawaharlal Nehru kept the portfolio of science with himself and persuaded Parliament to pass the Science Policy Resolution, a Utopian document with few parallels in the history of state and science. Much later, his daughter Indira Gandhi would also release a similar Technology Policy Statement of her government, reiterating the commitment of the State to the pursuance of indigenous technology. With all this support how have we done in the past 50 years?

Not bad at all, in technology, though our own assessment of success, at least until recently, seemed to be influenced more by the Cold War politics and regional geopolitics of the past decades than by achievements that have helped the country to be economically and politically independent and technologically relevant. India today is largely free of food imports. Thanks to the Green Revolution ushered in by agricultural scientists and farmers, the country has turned the begging bowl into a veritable bread basket. While more needs to be done – our yields are still some of the lowest in the world – the periodic bouts of scarcity and famine have been eliminated forever from the Indian landscape. The country has taken this achievement and similar successes in other areas of agricultural and animal husbandry so much for granted that we do not recognize how close India came to becoming a "failed State" dependent forever on food handouts from outside.

There are a few other tales of success, though not of this scale. India today routinely launches remote sensing satellites and will soon be launching its own geostationary communication and weather forecasting satellites, integrating India into one national village. The villages and towns are successfully connected by more than six million indigenously – designed and manufactured C-DoT telephone exchange lines. Indian chemical and pharmaceutical industries now have

their own product and process technologies and are becoming globally competitive. An Indian battle tank – currently rated as one of the best of its class – is entering into production. India was one of the earliest to build nuclear power reactors and has also an indigenously designed and successful, surface – to – surface missile. (489 words) (15 marks)

IV. Pick out the correct answer for each question:

i. The line Íf music be the food of love, play on' is from
   A. Twelfth Night
   B. Hamlet
   C. Macbeth
   D. Romeo and Juliet

ii. A Vindication of the Rights of Women was written by
   A. Margaret Fuller
   B. John Stuart Mill
   C. Judith Butler
   D. Mary Wollstonecraft

iii. In number, the skills of any language are
   A. Four
   B. Five
   C. Infinite
   D. Three

iv. Chaucer's last work was
   A. Troilus and Criseyde
   B. The Canterbury Tales
   C. The Parlement of Fowls
   D. Le roman de la Rose

v. Pick the comedy that takes its name from two pieces of wood that produce a crackling sound when hit against each other.
   A. High comedy
   B. Drawing room comedy
   C. Slapstick
   D. Shakespearean comedy

vi. The true -------- is moved neither by happiness nor sorrow.
   A. Optimist
   B. Fatalist
   C. Epicurean
   D. Stoic

(15x1= 15 marks)

SAMPLE MULTIPLE CHOICE QUESTIONS FOR M.A. (GEOGRAPHY)

1. The temperature of Thiruvananthapuram is lower than that of Mumbai in May and higher than that of Mumbai in January because:
   A) Thiruvananthapuram has a cold current and Mumbai a warm current
   B) Thiruvananthapuram has higher rainfall in summer and it is closer to the equator.
   C) Thiruvananthapuram is on the windward side and Mumbai is on the leeward side.
   D) Thiruvananthapuram is thickly vegetated while Mumbai is not
2. Which of the following is not a characteristic of a barkhan?
   A) Its horns point in a down wind direction.
   B) It has a crescent shape
   C) Its windward slope is concave
   D) It moves in the direction of the wind.
3. If the number of a Survey of India topographical sheet is 53 E/1, it's scale is:
   A) 1:25 000
   B) 1:50 000
   C) 1:250 000
   D) 1:5000
4. Coral reefs are to be found in:
   A) Polar latitudes
   B) Tropical latitudes
   C) Temperate latitudes
   D) All of the above
5. The age and sex composition of the population is best represented by
   A) Choropleth
   B) Isopleth
   C) Pie Diagram
   D) Pyramid Diagram
6. Which of the following is an antecedent river?
   A) Beas
   B) Satluj
   C) Ravi
   D) Jhelum

7. Representative Fraction is a method used for showing
   A) Scale on the map
   B) Direction on the map
   C) Contours on the map
   D) Distance on the map

8. Which of the following is not a method used for finding north
   A) Pole Star method
   B) Similar Triangles method
   C) Watch method
   D) Rod method

9. Following is an example of cold desert
   A) Sahara
   B) Kalahari
   C) Gobi
   D) Mojave

10. Mercator's Projection was used primarily for drawing
   A) Distribution Maps
   B) Political Maps
   C) Navigational Maps
   D) Cadastral Maps

SAMPLE MULTIPLE CHOICE QUESTIONS FOR MASTERS IN DISASTER MANAGEMENT

1. Spread of epidemics is associated with
   A) Floods
   B) Landslides
   C) Earthquake
   D) Volcanic Eruption
2. The switching over from the use of diesel to CNG is important because:
   A) CNG is cheaper than diesel
   B) Diesel is polluting fuel and CNG in non-polluting fuel
   C) CNG is easily available
   D) CNG is a non renewable resource
3. Which of the following is caused due to water contamination?
   A) Oral Cancer
   B) Hypertension
   C) Gastroenteritis
   D) Tuberculosis

4. Which of the following is a conventional source of energy?
   A) Solar Energy
   B) Thermal Energy
   C) Tidal Energy
   D) Wind Energy

5. Which of the following is a primary activity?
   A) Teaching
   B) Retail trade
   C) Mining
   D) Tailoring

6. RIO-10 (The World Summit for Sustainable Development) in 2002 was held at
   A) Keo Karo (India)
   B) Johannesburg (South Africa)
   C) New York (USA)
   D) Melbourne (Australia)

7. Approximately 71% surface of earth is covered with water bodies, ice caps and glaciers that is why earth is also known as:-
   A) Blue Planet
   B) Green Planet
   C) White Planet
   D) Yellow Planet
8. Which of the following is eco-friendly way of managing kitchen waste?
   A) Open dumping
   B) Land filling
   C) Burning
   D) Vermi Composting
9. Indian Cheetah and Dodo bird are:
   A) Vulnerable species
   B) Extinct species
   C) Threatened species
   D) Rare species

10. Harike wetland is located on confluence of which two rivers?
   A) Ganga-Yamuna
   B) Chandra-Bhaga
   C) Ganga-Brahmaputra
   D) Beas-Satluj

SAMPLE MULTIPLE CHOICE QUESTIONS FOR MASTERS IN GEOINFORMATICS

1. Consider the following statements:
   A The representative fraction of a map = $\frac{\text{distance on the ground}}{\text{distance on the map}}$
   B the denominator of the representative fraction is always once

   A) A only
   B) B only
   C) Both A and B
   D) Neither A or B

2. Map showing the depths of oceans and seas is termed as:
   A) Ethnographic map
   B) Orographic map
   C) Bathymetric map
   D) Geological map

3. Which one of the following is the largest scale of map?
   A) 1 : 10 000

B) 1 : 50 000
C) 1: 100 000
D) 1 : 1000 000

4. Kaziranga is famous for:
   A) Great Indian Bustard
   B) One horned rhino
   C) Cheetah
   D) Ostrich

5. In the topographical sheet settlements are represented by
   A) Green Color
   B) White Color
   C) Red Color
   D) Black Color

6. Silent Valley is located in
   A) Kashmir
   B) Kerala
   C) Uttaranchal
   D) Tamil Nadu

7. Which of the following is a perspective projection?

   A) Cylindrical Equal Area
   B) Bonne's Projection
   C) Gnomonic Projection
   D) Sinusoidal Projection

8. The point vertically below the camera lens in a photograph is called:
   A) Ground point
   B) Principal point
   C) Isocenter
   D) Ground nadir point

9. Which one of the following is the smallest scale of map?
   A) 1: 10 000
   B) 1:50 000
   C) 1: 100 000
   D) 1: 1000 000

10. Output Device of a computer is:
    A) Keyboard
    B) Printer
    C) Monitor
    D) Speaker

11. Pixel refers to
    A) Picture element
    B) Picture effect
    C) Perfect element
    D) Primary element

12. The term GPS refers to:
    A) Global Prevention System
    B) Global Protection System
    C) Global Positioning System
    D) None of the above.

13. The term GIS refers to:
    A) Geographical Informative System
    B) Global Information System
    C) Geological Information System
    D) Geographical Information System

Sample question paper Master of History

Note : 1. Question No. 1 under Unit-I is compulsory. Attempt any 05 Questions in 80-100 words each. Each question carries 05 marks. (5 x 5 = 25 marks).
2. Attempt any one Question from Unit –II in about 1000 words. Each Question carries 25 marks.
3. Attempt any One Question from Unit-III in about 1000 words. Each Question carries 25 marks.

UNIT-I

Q-I
i. What is meant by Mahajanpada ?
ii. Explain Dhamma.
iii. Explain Mansabdari System.
iv. What was meant by Sangat ?
v. Who were the Sufis ?
vi. What is meant by commercialisation of agriculture ?
vii. Explain Doctrine of Lapse.
viii. Discuss the demand of Punjabi Suba ?

UNIT-II

Q-II Write a note on the agriculture conditions in Ancient India.

Q-III Comment on the impact on Mohhanmad-Bin-Tuglaq's administrative experiments.

Q-IV Assess the contribution of the masses in the struggle for Independence.

Q-V How did Maharaja Ranjit Singh establish the kingdom of Lahore ?

UNIT-III

Q-VI What should be the role of the opposition parties in the Parliament ?

Q-VII Comment on the status of Women in Post Independent India.

Sample Question Paper for Entrance Test for Admission to M.A. Economics

1. Which of the following does not represent elasticity of substitution?
A) Proportionate Change in capital intensity due to proportionate change in $MRTS_{LK}$
B) Proportionate change in capital intensity due to proportionate change in relative factor prices?
C) Proportionate change in capital intensity due to proportionate change in relative Marginal productivity of factor.
D) Proportionate change in capital labour ratio due to Proportionate change in inputs.

2. The Haavelmo Theorem is popularly known as:
A) Income Multiplier
B) Employment Multiplier
C) Foreign Trade Multiplier
D) Balanced Budget Multiplier

3. On which of the following argument Keynes agree with classical?
A) Labour Supply Function
B) Labour Demand Function
C) Wage Price Flexibility
D) Interest rate as real phenomenon.

4. The F-statistics in OLS estimation is the test of
A) Significance of individual regression coefficients
B) Goodness of fit in the model
C) Significance of variance of the dependent variable
D) Significance of the variance of independent variable.

5. Which one of the following is not a formula of measuring correlation coefficient?
A) $b_{yx} \times b_{xy}$

B) $r_{xy} = \frac{\sigma_x}{\sigma_y} b_{yx}$

C) $r_{xy} = \frac{\sigma_{xy}}{\sigma_x \times \sigma_y}$

D) $r_{xy} = \frac{\sigma_{xy}}{\sigma_x^2 \times \sigma_x^2}$

6. Look at this series: 53, 53, 40, 40, 27, 27,... What number should come next?
A) 12
B) 14
C) 27
D) 53

7. Look at this series: 15,__,27,27,39,39,... What number should fill the blank?
A) 51
B) 39
C) 23
D) 15

8. NITI Aayog has replaced
A) Finance Commission of India
B) Planning Commission of India
C) Reserve Bank of India
D) Ministry of Finance

9. Chelliah Committee was appointed for
A) Fiscal reforms
B) Monetary reforms
C) Agricultural reforms
D) Industrial reforms

10. Adolph Wagner gave a model of
A) Industrial Location
B) Agricultural Transformation
C) Public Expenditure
D) Correlation

Sample Question Paper for Entrance Test for Admission to M.A. (Social Work)

Topics: Under Graduate Social Work, Current Social Issues, Education, Health, Terrorism, Environment, Disability; Election Related, General Knowledge etc.

1. Lucknow is situated on the bank of the river
(A) Yamuna (B) Gomti (C) Godavari (D) Ganga

2. In which year was 'Quit India Movement started?
(A) 1930 (B) 1940 (C) 1942 (D) 1947

3. Which bank issues Currency Notes?
(A) State Bank of India (B) Reserve Bank of India
(C) Central Bank of India (D) Bank of India

4. Ashok Chakra is an award associated with
(A) Gallantry (B) Music and Fine Arts
(C) Civilian Excellence (D) Sports

5. A "class" is chiefly referred as
(A) A social organization (B) A professional group
(C) An economic category (D) Socially mobile section

6. Which types of problems are attempted to be solved in social case work?
(A) socio-economic (B) socio-psychological
(C) socio-demographic (D) socio-political

7. The group in the social group work is
(A) Spontaneous (B) Formed in a planned manner
(C) Disunited (D) None of the above

8. One of the following goals is not the aim of community organization
(A) Task goal (B) Process goal (C) Social action goal (D) Leader centered goal

9. Which one is not an ideal example of social action?
(A) Chipko movement (B) National fishermen's struggle
(C) Ram Janma Bhoomi Movement (D) Narmada Bachao

10. World Literacy Day is celebrated on .....
(A) 8th September (B) 2nd October (C) 15th July (D) None

SAMPLE MULTIPLE CHOICE QUESTIONS FOR M.E. (CHEMICAL) & M.E. (CHEMICAL) WITH SPECIALISATION IN ENVIRONMENTAL ENGINEERING

Pick-up the correct option:

1. One mole of Nitrogen at 8 bar and 600K is contained in a piston-cylinder arrangement. It is brought to 1 bar isothermically against a resisting pressure of 1 bar. The work done (in Joules) by the gas is
   (a) 30554
   (b) 10373
   (c) 4988.4
   (d) 4364.9

2. For water at 300^{0}C, it has a vapour pressure 8592.7 kPA and fugacity 6738.9 kPa. Under these conditions, one mole of water in liquid phase has a volume 25.28 cm^3, and that in vapour phase 391.1 cm^3. Fugacity of water (in kPa) at 9000 kPa will be
   (a) 6738.9
   (b) 6753.5
   (c) 7058.3
   (d) 900

3. A dilute aqueous solution is to be concentrated in an evaporator system. High pressure steam is available. Multiple effect evaporator system is employed because.
   (a) total heat transfer area of all the effects is less than that in a single effect evaporator system
   (b) total amount of vapour produced per kg of feed steam in a multieffect system is much higher than in a single effect
   (c) boiling point elevation in a single effect system is much higher than that in any effect in a multieffect system.
   (d) heat transfer coefficient in a single effect is much lower than that in any effect in a multieffect system

4. Minimum reflux ratio in a distillation column results in
   (a) Optimum number of trays
   (b) Minimum reboiler size
   (c) Maximum condenser size
   (d) Minimum number of trays

5. An elementary liquid phase decomposition reaction A $\xrightarrow{k}$ 2B is to be carried out in a CSTR. The design equation is

   (a) $k\tau = \dfrac{X_A}{(1-X_A)}$

   (b) $k\tau = X_A \dfrac{(1-X_A)}{1-X_A}$

   (c) $k\tau = \dfrac{X_A}{(1-X_A)}$

   (d) $k\tau C_{AO} = \dfrac{X_A/(1+X_A)^2}{(1-X_A)^2}$

6. Match the following dimensionless numbers with the appropriate ratio of forces.

	Dimensionless Number		Ratio of forces
P	Froude Number	1.	Shear force/internal force
Q	Reynolds Number	2.	Convective heat transfer/conductive heat transfer
R	Friction Facter	3.	Gravitational force/viscous force
S	Nusselt Number	4.	Inertial force/viscous force
		5.	Inertial force/ gravitational force

   (a) P-1, Q-2, R-5, S-3
   (b) P-5, Q-4, R-3, S-2
   (c) P-5, Q-4, R-1, S-2
   (d) P-3, Q-4, R-5, S-1

7. A process stream of dilute aqueous solution flowing at the rate of 10 Kg s^{-1} is to be heated. Steam condensate at 95^0C is available for heating purpose, also at a rate of 10 kgs^{-1}. A 1-1 shell and tube heat exchange is available. The best arrangement is
   (a) counterflow with process stream on shell side
   (b) counterflow with process stream on tube side
   (c) parallel flow with process stream on shell side
   (d) parallel flow with process stream on tube side

8. The Reynolds Number of the liquid was increased 100 fold for a laminar falling film used for gas-liquid contacting. Assuming penetration theory is applicable, the fold-increase in the mass transfer coefficient (k_c) for the same system is:
   (a) 100
   (b) 10
   (c) 5
   (d) 1

9. A closed-loop system is stable when the gain margin is:
   a. >1
   b. <1
   c. 1
   d. Zero

10. The aerosols important in air pollution range from:
   e. 0.01 to 100 μm
   f. 100 μm to 100 μm
   g. 0.001 μm to 0.01 μm
   h. <0.001 μm

11. The order of convergence in Newton-Raphson method is:
    i. 2
    j. 3
    k. 0
    l. 1

12. Runge-Kutta method is used to solve:
    m. linear algebraic equations
    n. linear simultaneous equations
    o. ordinary differential equations of first order and first degree with given initial condition
    p. partial differential equations

SAMPLE QUESTIONS FOR M.E. (FOOD TECHNOLOGY)

1. The limiting value of Sherwood number for mass transfer from a spherical object is equal to
   (A) 2
   (B) 3
   (C) 4
   (D) 0.5
2. The primary protein in milk is
   (A) casein
   (B) tryptophan
   (C) lysine
   (D) glutenin
3. Percentage of fat in butter is
   (A) 50
   (B) 60
   (C) 70
   (D) 80
4. The power consumed by a drum dryer depends upon
   (A) Drum speed
   (B) Steam Pressure
   (C) Pressure exerted by the blade on the drums
   (D) Length and diameter of the drum
5. Freeze drying time is directly proportional to the _____of the material being dried.
   (A) thickness
   (B) square of the thickness
   (C) cube of thickness
   (D) fourth power of thickness
6. With increase in concentration of solute in a solution, boiling point
   (A) decreases
   (B) increases
   (C) remains constant
   (D) none of these
7. The major forces acting in cyclone separator are
   (A) gravity and centrifugal
   (B) gravity and centripetal
   (C) centrifugal and centripetal
   (D) None of these
8. Ultra filtration is used for production of
   (A) Butter
   (B) Ghee
   (C) Cheese
   (D) Ice-cream
9. Vacuum packaging is normally used for
   (A) milk powder
   (B) paneer
   (C) yoghurt
   (D) None of these
10. The water activity of free water should be
    (A) 1
    (B) less than one
    (C) more than one
    (D) 0

SAMPLE QUESTIONS FOR M.TECH. (POLYMER)

Pick-up the correct option:

1. Polymer formed in cationic Polymerization has
   a) narrow molecular weight distributions
   b) medium molecular weight distributions
   c) broad molecular weight distributions
   d) general isotactic structure

2. Thermokol is the trade name of
   a) high impact polystyrene
   b) general purpose polystyrene
   c) acrylonitrile-butadiene-styrene
   d) expanded polystyrene

3. The order of convergence in Newton-Raphson method is:
   a) 2
   b) 3
   c) 0
   d) 1
4. Runge-Kutta method is used to solve:
   a) linear algebraic equations
   b) linear simultaneous equations
   c) ordinary differential equations of first order and first degree with given initial condition
   d) partial differential equations

5. For an isotherm process, pressure, P and Bulk modulus, K is related as:
   a) K = P
   b) K = □ P
   c) K = P/□
   d) K = □ p2

6. Which one of the following fluids is essentially a non-Newtonian fluid under normal working conditions?
   a) blood
   b) thin lubricating oil
   c) water
   d) air

7. The pressure drop per unit length of a pipe under laminar flow condition is:
   a) $\frac{32\mu V_{av}}{d^2}$
   b) $\frac{128\mu Q}{\pi d^4}$
   c) either (a) or (b)
   d) none of these

8. The LMTD correction factor F_T:
   a) increases with decrease in number of shell passes
   b) increases with increase in number of shell passes
   c) remains constant with the increase in number of shell passes
   d) any one of the above, depending upon the type of exchanger.

9. In case of a packed tower, HETP varies with:
   a) type and size of packing
   b) flow rate of each fluid
   c) concentration of each fluid
   d) all of above

10 For a binary mixture at constant temperature, with the increase of total pressure, the relative volatility:
   a) decreases
   b) increases
   c) remains constant
   d) none of these

11. An irreversible first order reaction is carried out in a PFTR and CSTR of same volume. The liquid flow rates are same in each reactor. The relative conversion will be:
   a) less in pftr than in cstr
   b) more in cstr than in pftr
   c) less in cstr than in pftr
   d) same in each reactor

12. Grizzlies are used for screening solid particles of:
   a) large size
   b) small size
   c) very small size
   d) any one of the above

SAMPLE QUESTIONS FOR M.SC. (INDUSTRIAL CHEMISTRY)

PART-A : MATHEMATICS

Q.1. If x be real, $\frac{x^2 + 342 - 71}{x^2 + 2x - 7}$ can have no value between

(a) (3,7)
(b) (4,8)
(c) (5,9)
(d) (10,15)

Q.2. The set of equation x + y- 2z =0, 2x-3y+z=0, x-5y+yz=k is consistent for

(a) K = 0
(b) K = 1
(c) K = 2
(d) K = 5

Q.3. If U = $\frac{x^4 + y^4}{x + y}$, show that $x\frac{\partial U}{\partial x} + y\frac{\partial U}{\partial y}$ is equal to

(a) U
(b) 2 U
(c) 3 U
(d) 5 U

PART-B: PHYSICS

Q.4. Out of $\vec{F}_m$, $\vec{V}$ and $\vec{B}$ in the relation $\vec{F}_m$ = q ($\vec{V}$ x $\vec{B}$) which of the following pavis can have any angle between them.

(a) $\vec{V}$ and $\vec{B}$
(b) $\vec{F}$ and $\vec{V}$
(c) $\vec{F}_m$ and $\vec{B}$
(d) None of the above

Q.5. A body under the action of inverse square force will follow and elliptical path, if eccentricity

(a) e=0
(b) e=1
(c) e>1
(d) e<1 (Positive)

Q.6. If $\vec{B}$ = curl A , then

(a) $\vec{\nabla}\vec{B}$ = 0
(b) $\vec{\nabla}\vec{B}$ = 1
(c) $\vec{\nabla}\vec{B}$ = A
(d) $\vec{\nabla}\vec{B}$ = -1

PART-C : CHEMISTRY

Q.7. The IUPAC name for $CH_3CH_2 - \underset{\underset{O}{\|}}{C} - OCH_3$ is

(a) methyl propanoate
(b) Porpanendioic acid
(c) 2-propane-l-ol
(d) 3 oxo-1-methyl butane

Q.8. The number of NMR signals for the compound $CH_3OCH_2CH_3$ is
(a) One signal (singlet)
(b) Two signals (one singlet, one multiple)
(c) Three signals (singlets)
(d) Three signals (singlet, quartet, triplet)

Q.9. When Propane is treated with HBr in the presence of a peroxide
(a) Bromopropene is formed
(b) n-propyl bromide
(c) Allyl bromide is formed
(d) None of these

PART-D : INDUSTRIAL CHEMISTRY

Q.10. The Fourier number (N_{Fo}) is defined as
(a) tL^2/α
(b) hL/k
(c) $\alpha t/L^2$
(d) hk/L

Q.11. Baffles are provided in the heat exchanger to increase
(a) fouling factor
(b) heat transfer area
(c) heat transfer coefficient
(d) heat transfer rate

Q.12. Relative volatility, α, for a binary system
(a) decrease with increase in pressure
(b) increase with increase in pressure
(c) increase with increase in temperature at constant pressure.
(d) has no significance in distillation operation

SAMPLE QUESTIONS FOR

ME Electrical Engg. (Instrumentation & Control) Regular programme

1. Which term applies to the maintaining of a given signal level until the next sampling?
1. Holding
2. Aliasing
3. Shannon frequency sampling
4. Stair-stepping

2. What does a Hall Effect sensor sense?
A) Temperature
B) Moisture
C) Magnetic fields
D) Pressure

3. Two copper-constantan thermocouples are connected such that the two constantan wires are joined together. The two copper wires are connected to the input of a low noise chopper stabilized differential amplifier having a gain of 1000. One of the thermocouple junctions is immersed in a flask containing ice and water in equal proportion. The other thermocouple is at a temperature T. If the output of the amplifier is 2.050V, the temperature T is
A) 205°C
B) 102.5°C
C) 51.25°C
D) 50°C

4. A second order feedback system is found to be oscillating with a high frequency. The oscillations

5. Addressing mode of the instruction-ORL A, @ R0 is:
A) Direct
A) Indirect
C) Register
D) Immediate

6. Which type of programming is typically used for digital signal processors?
A) Assembly language
B) Machine language
C) C
7. D) None of the above
A phase lag compensation coil
A) Improves relative stability
B) Increases bandwidth
C) Increases overshoot
D) None of the above

8. Which one of the following is Programmable Interrupt Controller?
A) 8257
B) 8254
C) 8255
D) 8259

9. RTDs are typically connected with other fixed resistors
A) In a pi configuration
B) In a bridge configuration
C) And variable resistors
D) And capacitors in a filter-type

A) Can be reduced by increasing the proportional action.
B) Can be reduced by increasing the integral action.
C) Can be reduced by increasing the derivative action.
D) Cannot be reduced.

circuit

10. For a first order instrument a 5% settling time is equal to
    1. Three times the time constant.
    2. Two times the time constant.
    C) The time constant.
    D) Time required for the output signal to reaches 5% of the final value.

Sample Questions for

M.E. (Electronics and Communication Engineering) Regular Programme

1. Which rectifier requires four diodes?
   A) half-wave voltage doubler
   B) full-wave voltage doubler
   C) full-wave bridge circuit
   D) voltage quadrupler

2. If the input is a rectangular pulse, the output of an integrator is a
   A) Sine wave
   B) Square wave
   C) Ramp
   D) Rectangular pulse
3. The energy gap in a semiconductor
   A) Increases with temperature
   B) Does not change with temperature
   C) Decreases with temperature
   D) Is zero

4. The LASER diode sources require
   A) Spontaneous emission
   B) Absorption
   C) Stimulated emission
   D) None of the above
5. 2's complement representation of a 16-bit number (one sign bit and 15 magnitude bits) is FFFF. Its magnitude in decimal representation is
   A) 0
   B) 1
   C) 32, 767
   D) 65, 565
6. The Boolean function Y=AB + CD is to be realized using only 2 inpute NAND gates. The minimum number of gates required is
   A) 2
   B) 3
   C) 4
   D) 5
7. Which device is considered a current controlled device:
   A) Diode
   B) Filed effect transistor
   C) Transistor
   D) Resistor
8. In an amplifier, the emitter junction is
   A) Forward Biased
   B) Reverse Biased
   C) Grounded
   D) Shorted

9. Unijunction Transistor has three terminals,
   A) Cathode, Anode, Gate
   B) Grid, Plate, Cathode
   C) Base 1, Base 2, Emitter
   D) Gate, Base 1, Base 2
10. GSM stands for
    A) Global System for Mobile Communication
    B) Global System for Multiplexing
    C) Group System for Mobile Communication
    D) None of these

Sample Questions for M.E. (Computer Science & Engineering) Regular Programme

1. Which of the following is the name of the data structure in a compiler that is responsible for managing information about variables and their attributes?
   A) Abstract Syntax tree
   B) Symbol Table
   C) Variable value stack
   D) Parse tree
2. Seven (distinct) car accidents occurred in a week. What is the probability that they all occurred on the same day?
   A) $1/7^7$ B) $1/7^6$
   C) $1/2^7$ D) $7/2^7$
3. Which of the following statements is false
   A) As unambiguous grammar has same leftmost and rightmost derivation
   B) An LL (1) parser is top down parser
   C) LALR is more powerful than SLR
   D) An ambiguous grammar can never be LR (k) for any k

4. What will be the output of the following program?

```
void main()
{int var 1 = 10, var2 = 20, var3;
Var3 = var1++ + ++var2;
Printf("%d%d%d", var1, var2, var3);}
```

A) 10 20 30 B) 11 21 31
C) 10 21 30 D) 11 21 30

5. Which of the following data structures will allow mergesort to work in $O(n\log n)$ time?
   I. A singly linked list
   II. A doubly linked list
   III. An array
   A) III only
   B) I and II only
   C) II and III only
   D) I, II and III

6. In the internet Protocol (IP) suite of protocols, which of the following best describes the purpose of the Address Resolution Protocol?
   A) To translate Web addresses to host names
   B) To determine the IP address of a given host name
   C) To determine the hardware address of a given host name
   D) To determine the hardware address of a given IP address

7. The binary relation R= { (1,1), (2,1),(2,2), (2,3), (2,4),(3,1),(3,2), (3,3), (3,4) } on the set A= {1,2,3,4} is:
   A) reflexive, symmetric and transitive
   B) neither reflexive, nor irreflexive but transitive
   C) irreflexive, symmetric and transitive
   D) irreflexive and antisymmetric

8. Consider the following statements:
   (i) First-in first-out types of computations are efficiently supported by STACKS
   (ii) Implementing LISTS on linked lists is more efficient than implementing LISTS on an array for almost all the basic LIST operations
   (iii) Implementing QUEUES on a circular array is more efficient than implementing QUEUES on a linear array with two indices
   (iv) Last – in – first – out type of computations are efficiently supported by QUEUES
   A) (ii) and (iii) are true
   B) (i) and (ii) are true
   C) (iii) and (iv) are true
   D) (ii) and (iv) are true

9. A binary search tree is generated by inserting in order of following integers
   50,15,62, 5, 20, 58, 91, 3, 8, 37, 60, 24
   The number of nodes in the left subtree and right subtree of the root respectively is
   A) (4, 7)
   B) (7, 4)
   C) (8, 3)
   D) (3, 8)

10. A directed graph with n vertices and e edges are represented by Adjacency matrix. What is the time required to determine the in-degree of a vertex?
    A) O(e)
    B) O(n)
    C) $O(n^2)$
    D) O (e+n)

Sample Questions for

ME Civil Engineering (Construction Technology & Management) Regular Programme

Q.1. Mass moment of inertia of a uniform thin rod of mass M and length (I) about its mid-point and perpendicular to its length is

(a) $\frac{2}{3} MI^2$ (b) $\frac{1}{3}MI^2$ (c) $\frac{3}{4}MI^2$ (d) $\frac{4}{3}MI$

Q.2. The point of contraflexure is a point where

(a) Shear force changes sign (b) Bending moment changes sign
(c) Shear force is maximum (d) Bending moment is maximum

Q.3. In order to avoid tendency of separation at throat in a venturimeter, the ratio of the diameter at throat to the diameter of pipe should be

(a) $\frac{1}{16}$ to $\frac{8}{8}$ (b) $\frac{1}{8}$ to $\frac{1}{4}$ (c) $\frac{1}{4}$ to $\frac{1}{3}$ (d) $\frac{1}{3}$ to $\frac{1}{2}$

Q.4. The main cause of silting in channel is

(a) Non-regime section (b) Inadequate slope
(c) Defective head regulator (d) All of these

Q.5. Weight of a vehicle affects

(a) Passing sight distance (b) Extra widening
(c) Pavement thickness (d) Width of lanes

Q.6. The difference between maximum void ration and minimum void ratio of a sand sample is 0.30. If the relative density of this sample is 66.6% at a void ration of 0.40 then the void ratio of this sample at its loosest state will be

(a) 0.40 (b) 0.60 (c) 0.70 (d) 0.75

Q.7. The diagonal tension in concrete can be resisted by providing

(a) Diagonal tension reinforcement (b) Shear reinforcement
(c) Inclined tension reinforcement (d) All these

Q.8. Rivet value is equal to

(a) Strength of a rivet in shearing
(b) Strength of a rivet in bearing
(C) Minimum of the value obtained in (a) and (b)
(d) Maximum of the value obtained in (a) and (b)

Q.9. Rise and fall method is used in

(a) Profile leveling (b) Differential leveling
(c) Check leveling (d) Non of these

Q. 10. The alkaline salt present in the bricks, absorbs moisture from the air which on drying

(a) Leaves pores and makes the bricks porous
(b) Leaves high powder deposit on the brick
(c) Makes the brick brittle and weak
(d) All of these

Sample Questions for ME Mechanical Engineering (Manufacturing Technology) Regular Programme

Q.1. An inertial frame of reference has
(a) Fixed origin but directions of axes can change with time
(b) Fixed origin as well as fixed directions of its axes
(c) Fixed directions of axes but origin can change with time
(d) Any of the above

Q.2. Dimensional formula for Young's modulus of elasticity is
(a) $ML^{-1}T^{-2}$
(b) MLT^{-2}
(c) $M^{-1}L^{-1}T^{-1}$
(d) $ML^{-2}T^{-2}$

Q.3. Which of the following processes would be best suited for stress relieving, improving machineability and ductility in casting and deep drawn components
(a) Austempering
(b) Tempering
(c) Normalising
(d) Annealing

Q.4. The pressure intensity at a point in a fluid is same in all directions, only when
(a) The fluid is frictionless
(b) The fluid is frictionless and incompressible
(c) The fluid has zero viscosity and is at rest

Q.5. In orthogonal cutting, cutting face is inclined to the direction of cut at

(a) 90 degree
(b) Less than 90 degree
(c) Between 30 and 45 degrees
(d) Greater than 90 degree

Q.6. In statistical quality control $\pm 3\sigma$ means the percentage of items within acceptable limits will be:
(a) 68.26
(b) 95.46
(c) 99.73
(d) 50

Q.7. In the specification of fits
(a) Allowance is equal to twice the tolerance
(b) Allowance is equal to half of tolerance
(c) Allowance is independent of tolerance
(d) Allowance is equal to the difference between maximum material limit mating parts.

Sample paper M.E. Electrical Engineering (Power System)

Q.1 The maximum efficiency of a half-wave rectifier circuit can be
(A). 37.2%
(B). 40.6%
(C). 53.9%
(D). 81.2%

Q.2 An overcurrent relay of current 5A and setting 150% is connected to the secondary of CT while CT ratio is 300:5. The current in the lines for which relay picks up is
(A) 300 A
(B) 450 A
(C) 150 A
(D) 200 A

Q.3 A 100 mA meter has accuracy of ±2%. Its accuracy while reading 50 mA will be
(A) ± 1%
(B) ± 2%
(C) ± 4%
(D) ± 20%

Q.4 A 4-digit DVM(digital voltmeter) with a 100-mV lowest full scale range would have a sensitivity of how much value while resolution of this DVM is 0.0001
(A). 0.1 mV
(B). 0.01 mV
(C). 1.0 mV
(D). 10 mV

Q.5 In a 4-bit weighted resistor D/A converter, the resistor value corresponding to LSB is 32 kΩ .The resistor value corresponding to MSB will be
(A). 32Ω
(B). 16Ω
(C). 8Ω
(D). 4Ω

Q.6 For a two port linear passive bilateral network is
(A). AD=BC
(B). AD-BC=0
(C). AD-BC=1
(D). AB-BC=1

Q.7 A distribution station has a peak load of 3000 kW and total annual energy of 10^7 kWh. The peak power loss is 220 kW. The loss factor is:
(A). 0.215
(B). 0.285
(C). 0.325
(D). 0.356

Q.8 The load frequency response in a system
(A). Does consider the reactive power flow
(B). Does not consider the reactive power flow
(C). Does not consider the real power flow
(D). Consider Active power

Q.9 For a synchronous phase modifier, the load angle is
(A). 0^0
(B). 25^0
(C) 30^0
(D). 50^0

Q.10 A pilot exciter is:
(A). A level compound small DC generator
(B). A small servo type synchronous generator
(C). A main synchronous generator
(D). A main exciter

M.Tech Material Science (Entrance Test)

- Use of calculator is not allowed

Q1. In a solid lattice the cation has left a lattice site and is located at an interstitial position, the lattice defect is
- A) Interstitial defect
- B) Frenkel Defect
- C) Schottky Defect
- D) Valency Defect

Q2. The existence of energy bands in a solid is a consequence of
- A) Interaction of atoms
- B) Interference of electron waves
- C) Random motion of electrons
- D) Effective mass of electron

Q3. Two sources of light are said to be coherent if waves produced by them have the same
- A) Frequency
- B) Amplitude
- C) Amplitude and same wavelength
- D) Frequency and constant phase difference

Q4. Beautiful colours of oil films and soapy water are due to
- A) Interference
- B) Diffraction
- C) Polarisation
- D) Compton effect

Q5. Which elements have non bonding electrons
- A) Elements with lone pair
- B) Electronegative elements
- C) Both of them
- D) None of them

Q6. Enzyme-substrate kinetics can be studied via
- A) Stern Volmer plots
- B) DFT calculation
- C) Michaelis Menten Kinetics
- D) none of the above

Q7. Which of the following is an aromatic amino acid
- A) Tyrosine
- B) Glutamic acid
- C) Arginine
- D) Cystenine

Q8. The region between the curve $y = \sqrt{x}$, $0 \leq x \leq 4$, and the x-axis is revolved about the x-axis to generate the solid. Find its volume.
- A) 2π (B) 4π
- C) 6π (D) 8π

Q9. Find the flux of $\vec{F} = (x - y)\hat{\imath} + x\hat{\jmath}$ across the circle $x^2 + y^2 = 1$ in the xy-plane.
- A) 0
- B) 1
- C) π
- D) (d) $-\pi$

Q10. In a skew symmetric matrix A, all diagonal element are _____
- A) 1
- B) 2
- C) -1
- D) 0

Sample Questions for M.E. Biotechnology

1. Which of the following is not measure of central tendency.

a) Mean b) Mode
c) Range d) Median

2.Literature databases include.

a) MEDLINE and PubMED
b) MEDLINE and PDB
c) PubMED and PDB
d) MEDLINE and PDS

3.GenBank,the nucleic acid sequence database is maintained by

a) Brookhaven Laboratory
b) DNA database of Japan
c) European Molecular Biology Laboratory
d) National Centre for Biotechnology Information

4.Which of the following are similar between transcription in prokaryotes and eukaryotes

a) RNA polymerase products in mRNA which grows in 5'' -3"direction
b) RNA polymerase bind to ribosomes to allow transcription
c) A poly-A tail is added to the 3"end of mRNAs
d) Introns are present in genes which are spliced out after transcription

5.Mitochondrial DNA is advantageous for evolutionary studies because:

a) It is inserted into the X chromosome
b) It is inherited only through female parent
c) It evolves more slowly than the genes in nucleus
d) It first appeared in humans and is not found in other animals

6.The lac operon in E coli is involved in

a) Regulating the expression of gene
b) Controlling DNA replication
c) Regulating the translation of mRNA
d) Controlling the formation of ribosome

7.Dimethyl sulfoxide (DMSO) is used as a cryopreservant for mammalian cell cultures because

a) It is organic solvent
b) It easily penetrates cells
c) It protects cells by preventing crystallization of water
d) It is also utilized as a nutrient

8.The helix content of a protein can be determinded using

a) An infrared spectrometer
b) A fluorescence spectrometer
c) A circular dischroism spectrometer
d) A UV-Visible spectrophotometer

9.Frequency of a gene in a population will increase if the gene is

a) Lethal
b) Dominant
c) Recessive
d) Favorably selected

10.Km is the substrate concentration at which

a) The reaction rate is double of the maximum
b) The reaction rate is one half of the maximum
c) The enzyme is completely saturated with substrate
d) The enzymatic reaction stops

11. Which of the following is a sequence alignment tool

a) BLAST
b) PRINT
c) PROSITE
d) PIR

12. Amino acid residue which is most likely to be found in the interior of water-soluble globular proteins is

a) Threonine
b) Aspartic acid
c) Valine
d) Histidine

Sample question paper ME(ECE)

1. The first and last critical frequency of an RC-driving point impedance must respectively, be
   A. A zero and a pole
   B. A zero and a zero
   C. A pole and a pole
   D. A pole and a zero

2. A continuous-time function x(t) is periodic with period T. The function is sampled uniformly with a sampling period Ts. In which one of the following cases is the sampled signal periodic?
   A. $T = \sqrt{2}Ts$
   B. $T = 1.2Ts$
   C. Always
   D. Never

3. The impulse response of an LTI system can be obtained by
   A. Differentiating the unit ramp response
   B. Differentiating the unit step response
   C. Integrating the unit ramp response
   D. Integrating the unit step response

4. The Fourier transform of a conjugate symmetric function is always
   A. Imaginary
   B. Conjugate antisymmetric
   C. Real
   D. Conjugate symmetric

5. The first six points of the 8-poiny DFT of a real valued sequence are 5, 1-j3, 0, 3-j4, 0 and 3 + j4. The last two points of the DFT are respectively
   A. 0, 1-j3
   B. 0, 1+j3
   C. 1+j3, 5
   D. 1-j3, 5

6. If the Laplace transform of a signal y(t) is $Y(s) = \frac{1}{s(s-1)}$, then its final value is
   A. -1
   B. 0
   C. 1
   D. Unbounded

7. Consider the sequence $x[n] = a^n u[n] + b^n u[n]$, where u[n] denotes the unit-step sequence and $0 < |a| < |b| < 1$. The region of convergence (ROC) of the z-transform of x[n] is
   A. $|z| > |a|$
   B. $|z| > |b|$
   C. $|z| < |a|$
   D. $|a| < |z| < |b|$

Sample question paper MTech (Micro-electronics)

1. A thin P-type silicon sample is uniformly illuminated with light which generates excess carriers. The recombination rate is directly proportional to
   A. The minority carrier mobility
   B. The minority carrier recombination lifetime
   C. The majority carrier concentration
   D. The excess minority carrier concentration

2. n-type Silicon is obtained by doping Silicon with
   A. Germanium
   B. Aluminium
   C. Boron
   D. Phosphorus

3. A region of negative differential resistance is observed in the current voltage characteristic of a silicon PN junction if
   A. Both the P-region and the N-region are heavily doped
   B. The N-region is heavily doped compared to the P-region
   C. The P-region is heavily doped compared to the N-region
   D. An intrinsic Silicon region is inserted between the P-region and the N-region.

4. A silicon PN junction is forward biased with a constant current at room temperature. When the temperature is increased by 10°C, the forward bias voltage across the PN junction
   A. Increases by 60mV
   B. Decreases by 60 mV
   C. Increases by 25 mV
   D. Decreases by 25 mV

5. The Ebers-Moll model of a BJT is valid
   A. Only in active mode
   B. Only in active and saturation modes
   C. Only in active and cut-off modes
   D. In active, saturation and cut-off modes

6. In IC technology, dry oxidation (using dry oxygen) as compared to wet oxidation(using steam or water vapour) produces
   A. Superior quality oxide with a higher growth rate
   B. Inferior quality oxide with a higher growth rate
   C. Inferior quality oxide with a lower growth rate
   D. Superior quality oxide with a lower growth rate

7. Under the DC conditions, the collector-to-emitter voltage drop is
   A. 4.8 Volts C. 5.3 Volts
   B. 6.0 Volts D. 6.6 Volts

Sample Questions for M.E. (Mechanical Engineering)

1. Which one of the following is correct? In normal shock wave in one dimensional flow
   A. The entropy remains constant
   B. The entropy increases across the shock
   C. The entropy decreases across the shock
   D. The velocity, pressure, and density increase across the shock
2. Which of the following are the limitation of the powder metallurgy?
   A) High tooling and equipment costs
   B) Wastage of material
   C) It cannot be automated
   D) Expensive metallic powders

   Select the correct answer using the code
   Code – 1) Only A and B
   Code – 2) Only B and D
   Code – 3) Only A and D
   Code – 4) Only A, B and D

3. Subooling in the condenser of a refrigerator system is advisable when
   A) Expansion system is at a higher elevation value is at a higher
   B) There is a large pressure drop in the line connecting condenser to the expansion valve.
   C) The refrigeration effect is to be increased.
   D) The compressor work is to reduced
   Code – 1) Only A and B
   Code – 2) Only A, C and D
   Code – 3) Only B, C and D
   Code – 4) A, B and D
4. An Orthotropic material under plane stress condition will have
   A) 15 independent elastic constants
   B) 5 independent elastic constants
   C) 6 independent elastic constants
5. When dry bulb and thermodynamic wet bulb temperatures are same
   A) Humidity ratio is 100%
   B) Partial pressure of water vapour equal total pressure
   C) Air is fully saturated
   D) Dew point temperature is reached
   E) All of these
   F) None o these
6. In a cooling tower, the minimum temperature to which water can be cooled is equal to the
   A) Dew point temperature of the air at the inlet
   B) Dry bulb temperature of the air at the inlet
   C) Thermodynamic wet bulb temperature of the air at the inlet
   D) Mean of the dew point and dry bulb temperature of the air at inlet

Sample Questions for M.Com. (Business Economics)

4. Accounting is the language of –
   E. Business
   F. Books of Accounts
   G. Accountant
   H. None of these
5. Which of the following is not included under accounting concepts?
   E) Money Measurement Concept
   F) Business Entity Concept
   G) Continuity Concept
   H) None of these
6. Which expenses is of Capital Nature?
   E) Depreciation
   F) Wages
   G) Salary
   H) Stationary
7. Dividend can be declared from –
   A) Revenue Profit
   B) Capital Profit
   C) Secret Reserve
   D) All of these
8. Privatization is the result of –
   A) Economic Compulsion
   B) Social Compulsion
   C) Global Compulsion
   D) Market Compulsion
6. *An agreement enforceable by law is called –*
   D) Voidable Contract
   E) Void Agreement
   F) Legal Agreement
   G) Valid Contract
7. *The Sale of Goods Act came into force from –*
   A) July 1, 1932
   B) July 1, 1930
   C) July 1, 1935
   D) July 1, 1940
8. *The value of the variable which occurs most frequently in a distribution is called –*
   A) Mode B) Mean
   C Median D) All of these
9. *The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by*
   A) 2 B) 3
   C) 3 D) Their Number
10. *Which of the following is Business Averages?*
    A) Moving average
    B) Progressive average
    C) Composite Average
    D) All of these

M.Com (Master of Entrepreneurship and Family Business) (MEFB)

Part A: Verbal ability/Reasoning

1. Disease: Health:: Freedom : ?
   A) Slavery
   B) Pleasure
   C) Plight
   D) Beauty
2. If you are going to west in the afternoon, the sun will be visible at your left.
   A) Never
   B) Always
   C) Sometimes
   D) Often
3. Fill in the blank with the most suitable alternative. He shouted …… at the subordinate.
   A) Loud
   B) Loudly
   C) Loudely
   D) Loudingly

Part B: General Knowledge

1. In which organ of the human body would you find a cluster of cells which produce insulin?
   A) Bile
   B) Liver
   C) Pancreas
   D) Brain
2. Which area in India is the only breeding ground of the flamingo?
   A) Rann of Kutch
   B) North East
   C) Himalayas
   D) Bay of Bengal
3. Which was the first Capital of Pakistan?
   A) Karachi
   B) Lahore
   C) Islamabad
   D) Peshawar
4. Which Olympic did Milkha Singh break the world record in the 400 metres event.
   A) Rome
   B) Athens
   C) Beijing
   D) None of the above
5. Kuchipudi is a dance form of
   A) Tamil Nadu
   B) Orissa
   C) Kerala
   D) None of the above

Part C: **Data Interpretation**

According to the survey of 2000 educated unemployed persons in which 1200 were men and 800 were women, the following data were collected.

Qualification	Unemployed Men	Unemployed Women
Doctors	12.5%	15%
Engineers	20.0%	7.5%
Trained Teachers	15.0%	22.5%
Post-Graduates	22.5%	25.0%
Graduates	30.0%	30.0%

1. On the basis of above Table, what is the difference between the number of unemployed men and women doctors?
   A) 20
   B) 30
   C) 40
   D) None of the above
2. What is the total number of unemployed Graduates?
   A) 425
   B) 475
   C) 550
   D) 600

Part D: Commerce/ Economics

1. The sale of goods Act came into force from –
   A) July 1, 1932
   B) July 1, 1930
   C) July 1, 1935
   D) July 1, 1940
2. The value of the variable which occurs most frequently in a distribution is called
   A) Mode
   B) Mean
   C) Median
   D) All of these
3. The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by
   A) 2 B) 3
   C) 5 D) Their Number
4. Which of the following is Business Averages?
   A) Moving average
   B) Progressive average
   C) Composite Average
   D) All of these

Sample Questions for M.Com. (Honours)

1. Which of the following presents key aspects of the process of accounting in the correct chronological order?
   A) Communicating, recording and identifying
   B) Recording, identifying and communicating
   C) Recording, totaling and identifying
   D) Identifying, recording and communicating

2. Which of the following is not a function of controller?
   A) Financial reporting
   B) Managerial reporting
   C) Money management
   D) Cost management

3. Ending finished goods inventory is:
   A) Beginning finished goods inventory + cost of goods completed – cost of goods sold
   B) Cost of goods completed – cost of goods sold
   C) Beginning finished goods inventory + cost of goods completed
   D) Beginning finished goods inventory - cost of goods completed + cost of goods sold

4. Which of the following is also known as an inventoriable cost?
   A) Period cost
   B) Fixed cost
   C) Product cost
   D) Conversion cost

5. A cost management tool that brings in its focus the activities performed to produce a product is called
   A) target costing
   B) life cycle costing
   C) ABC
   D) benchmarking

6. The first Factories Act was enacted in
   A) 1881
   B) 1895
   C) 1897
   D) 1885

7. If the date of incorporation of a company is 1/01/2005, the first AGM must be held before
   A) 30/06/2006
   B) 31/03/2006
   C) 31/12/2005
   D) 31/03/2005

8. The 'right to information' under the RTI Act, 2005 includes the right to
   A) Inspect works, documents, records
   B) Take notes, extracts or certified copies of documents or records
   C) Obtain information in form of printouts, diskettes, floppies, tapes video cassettes or in any other electronic mode or through printouts
   D) All of the above

9. Long term capital asset is an asset (other than financial securities) which is held by the assessee for more than

12. When an oligopolist individually chooses its level of production to maximize its profits, it charges a price that is
   A) more than the price charges by either monopoly or a competitive market
   B) less than the price charges by either monopoly or a competitive market
   C) more than the price charges by a monopoly and less than the price charges by a competitive market
   D) less than the price charges by a monopoly and more than the price charges by a competitive market

13. Suppose that the government increases its spending by 10 per cent and also increases taxes by 10 per cent. We would expect this policy to
   A) Essentially have no effect on the level of national income
   B) Have a contractionary effect on national income
   C) Decrease the marginal propensity to save out of each extra pound of income
   D) Have an expansionary effect on national income.

14. The Government of India has decided to cover all districts of the country in National Rural Employment Guarantee Programme (NREGP)
   A) up to January 1, 2008
   B) up to March 31, 2008
   C) with effect from April 1, 2008
   D) with effect from April 1, 2009

15. Reserve Bank of India calculates four components of money supply, M1, M2, M3, M4. Which one of the following statement is not correct?
   A) M1 = currency with public + demand deposits with banks
   B) M2 = M1 + post office savings deposit
   C) M3 = M1 + M2
   D) M4 = M3 + total post office deposits

16. What is meant by the term functional management?
   A) A system of business organization that is based on an individual having a wide range of skills needed to administer a business
   B) A type of management that is based more on personality
   C) A system that groups together various jobs and is organized by departments, sections, or functions
   D) A system that supports a flat form of command chain

17. Maslow, in his triangle of human needs, showed that
   A) Having challenging new tasks is a basic human need
   B) Money always motivates workers
   C) Safety and security is a low order human need

A) 36 months
B) 12 months
C) 24 months
D) 30 months

The definition of 'Goods' under the Central
10. Sales Tax Act, 1956 does not include
A) Newspapers
B) Standing corps
C) Computer software
D) Animals

A rational person does not act unless
11. A) the action is ethical
B) the action produces marginal costs that exceed marginal benefits
C) the action produces marginal benefits that exceed marginal costs
D) the action makes money for the person

D) Workers will not give of their best unless they have good social events provided by the firm

18. The purpose of the Malcolm Baldrige National Quality Award is to
A) Stimulate efforts to improve quality
B) Recognize quality achievements of companies
C) Publicize successful quality programs
D) All of the above

19. The process of collecting information about the external marketing environment is
A) Environmental management
B) Environmental scanning
C) Marketing management
D) Marketing scanning

20. The correct components of the 7-S framework are
A) Share values, synergy, systems, strategy, style, staff and structure
B) Standards, strategy, style, staff skills, systems and security
C) Structure, strategy, shared values, style, staff, skills and systems
D) Strategy, synergy, shared value, standardization, skills staff and structure

Sample Questions for M.Com (Business Innovations)

Q1) India first took part in the Olympic games in the Year
A) 1920
B) 1928
C) 1972
D) 1974

Q2) Where is the headquarters of the Oil and Natural Gas Corporation
A) Mumbai
B) Dehradun
C) Vadodara
D) Digboi

Q3) The working languages of the UNESCO is/ are
A) English only
B) French only
C) English and French
D) English, French and Russian

Q4) After textiles, India's second important industry is:
A) Sugar
B) Jute
C) Cement
D) Iron and Steel

Q5) Vedanta group has been denied permission to start its activities in Niyamgiri Hills of Orissa. What activity was it pursuing?
A) Steel Production
B) Bauxite mining
C) Gas exploration
D) Timber cutting

Q6) Botany: Plants::Entomology:? –

Q7. 48:122::168:? –
A) 292
B) 290
C) 225
D) 215

Q8) AKU:?::CMW:DNX
A) BGL
B) BLQ
C) BGQ
D) BLV

Q9) Flow: River::Stagnant: ?
A. Pool
B. Rain
C. Stream
D. Canal

Q 10) A rectangular floor is fully covered with square tiles of identical size. The tiles on the edges are white and tiles in the interior are red. The number of white tiles is the same as the number of red tiles. A possible value of the number of tiles along the edge of the floor is
A. 10
B. 12
C. 14
D. 16

A) Birds
B) Plants
C) Insects
D) Snakes

Sample Questions for MBACIT

1 C. V. Raman won the Noble Prize for
3. Bioscience
4. Chemistry
5. Economics
6. Physics

2 A.P.J. Abdul Kalam's autobiography is titled
A) Ignited minds
B) The Argumentative Indian
C) The Alchemist
D) Wings of Fire

3 SEZ Stands for
A) Special economic zone
B) Suez Canal
C) Select enterprise zone
D) Specific elite zone

4 A wheel makes 1000 revolutions in covering a distance of 88 Km. The diameter of the wheel is:
A) 24 meter
B) 40 meter
C) 28 meter
D) 14 meter

5 The difference between the ages of two persons is 10 Years. 15 Years ago, if the elder one was twice as old as the younger one, their present ages are
A) 35, 25
B) 45, 35
C) 33, 23
D) 30, 20

6 The sale of Goods Act came into force from –
A) July 1, 1932
B) July 1, 1930
C) July 1, 1935
D) July 1, 1940

7. The value of the variable which occurs most frequently in a distribution is called –
A) Mode
B) Mean
C) Median
D) All of these

8. The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by
E) 2
F) 3
G) 5
H) Their Number

9. Which of the following is Business Averages?
A) Moving average
B) Progressive average
C) Composite Average
D) All of these

10. Which type of software is focused on supporting communication, collaboration and coordination?
A) Groupware
B) CRM software
C) E-business software
D) SCM software

11. When discussing email security, what is a Trojan Horse?
A) A code hidden in another useful program, which has a destructive function of some sort
B) The barrier or firewall through which all incoming email must pass.
C) Small computer program snippets that are designed to do some harm on their host
D) A destructive program that can spread itself automatically from one computer to the next within an email

Sample Questions for M.B.A. for Executives (MBAfEX)

Component 1: General Knowledge

1. In which organ of the human body would you find a cluster of cells which produce insulin?
A) Bile
B) Liver
C) Pancreas
D) Brain

2. Which area in India is the only breeding ground of the flamingo?
A) Rann of Kutch
B) North East
C) Himalayas

D) Bay of Bengal

3. Which was the first Capital of Pakistan?
A) Karachi
B) Lahore
C) Islamabad
D) Peshawar

4. Which Olympic did Mikha Singh break the world record in the 400 meters event?
A) Rome
B) Athens
C) Beijing
D) None of the above

5. Kuchipudi is a dance form of
A) Tamil Nadu
B) Orissa
C) Kerala
D) None of the above

Component II: Economic and Business Environment Awareness

1. A mixed economy is necessarily a _____ economy.
A) Controlled
B) Planned
C) Organised
D) None of the above

2. Which of the following internal factors influence the strategy and other decisions of the business?
A) Value System
B) Mission and objective
C) Management structure and nature
D) None of the above

3. Environment is synonymous with _____
A) Task
B) Relations
C) People
D) Situational variables

4. Which is the full form of NTC?
A) National Thermal Corporation
B) National Textile Corporation
C) Non-Textile Corporation
D) None of the above

6. In which sector Indian Economy is growing at faster rate in 21st century (after 2000) _____
A) Service
B) Agriculture
C) Manufacturing
D) Public

Component III: Data Interpretation and Problem Solving

According to the survey of 2000 educated unemployed persons in which 1200 were men and 800 were women, the following data were collected.

Qualification	Unemployed Men	Unemployed Women
Doctors	12.5%	15%
Engineers	20.0%	7.5%
Trained Teachers	15.0%	22.5%
Post-Graduates	22.5%	25.0%
Graduates	30.0%	30.0%

1. On the basis of above Table, what is the difference between the number of unemployed men and women doctors?
A) 20
B) 30
C) 40

D) None of the above

2. What is the total number of unemployed Graduates?
   A) 425
   B) 475
   C) 550
   D) 600

3. What is the total number of Engineers?
   A) 300
   B) 350
   C) 360
   D) 400

4. In which category, unemployed men are more in percentage than unemployed women
   A) Doctors
   B) Engineers
   C) Post Graduates
   D) Graduates

Component IV: Numerical Ability

1. How many pillars are needed to construct a bridge of 300 meters long, if pillars are at a distance of 12 ½ meters each?
   A) 22
   B) 24
   C) 25
   D) None of the above

2. If 5 x 8 = 28, 3 x 7 = 12, 8 x 6 = 35, then find the value of 13 x 13 =?
   A) 169
   B) 130
   C) 140
   D) 144

3. The ratio of boys and girls in a is 3:2. 20% of boys and 25% of girls are scholarships holders. The percentage of students who are scholarship holders are:
   A) 45
   B) 53
   C) 60
   D) 22

4. In a class M is 9^{th} from the top, S is 8^{th} from the bottom and R is exactly in between them. If there are three children between M and R, find out the total students
   A) 24
   B) 25
   C) 23
   D) 27

5. 3, 5, 9, 17, 13, _____
   A) 44
   B) 65
   C) 64
   D) 49

Component V: Verbal Ability and Reasoning

1. Disease : Health :: Freedom : ?
   A) Slavery
   B) Pleasure
   C) Plight
   D) Beauty

2. If you are going to west in the afternoon, the sun will be visible at your left.
   A) Never
   B) Always
   C) Sometimes
   D) Often

3. Fill in the blank with the most suitable alternative. He shouted _____ at the subordinate.
   A) Loud
   B) Loudily
   C) Loudely
   D) Loudingly

4. J, F, M, A, M, ?
   A) M
   B) J
   C) D
   D) S

5. In a military code CAUTION is coded as VACITNO. How will you uncode MISUNDERSTAND?
   A) SIMUNEDSRTAND
   B) SIMNUEDSRATDN
   C) SMIUNDERSTAND
   D) None of the above

Component VI: English Comprehension

The most important reason for this state of affairs, perhaps, is that India was the only country in the world to truly recognize the achievements of the Soviet-Union-rather than merely focus on the de-bilitating faults that Communism brought to its people. The people of India realized that the achievement of one hundred per cent literacy in a country much, much larger than its own and with similarly complicated ethnic and religious groupings, the rapid industrialization of a nation that was a primarily agrarian society when the Bolshevik revolution took place in 1917; the attendant revolutionary steps in science and technology, the accessibility of health care (primeval according to Western standards, perhaps, but not according to India ones) to the general population, and despite prohibition of the government of the time the vast outpourings in literature, music, art, etc., are momentous and remarkable feats in any country.

In contrast, all that the West focused on were the massive human rights violations by the Soviet State on its people, the deliberate uprooting, and mass migrations of ethnic peoples from one part of the country to another in the name of industrialization, the end of religion in short, all the tools of information were employed to condemn the ideology of Communism, so much at variance with capitalist thinking.

The difference with the Indian perception, I think here is, that while the Indians reacted as negatively to what the Soviet governments did to its people in the name of good governance (witness the imprisonment of Boris Pasternak and the formation of an intentional committee to put pressure for his release with Jawaharlal Nehru at its head), they took the pain not to condemn the people of that broad country in black and white terms; they understood that mingled in the shades of gray were grains of uniqueness. (The Russians have never failed that characteristic in themselves; they have twice experimented with completely different ideologies, Communism and Capitalism both in the space of century).

1. Which of the following statements according to the passage is correct?
   (a) India took heed "On the week faults of Russian policies and system.
   (b) India seriously commended the achievement of Russian, i.e. cent per cent literacy and rapid industrialization.
   (c) The process of industrialization had already started when Russian revolution took place in 1917.
   (d) The literature, art and music received a setback during the communist regime in Russia.

2. The West did not focus on:
   (a) Rapid growth of nuclear weapons in Russia
   (b) Massive human rights violation by the Soviet state on its people.
   (c) Deliberate uprooting and mass migration of ethnic people in the name of industrialization.
   (d) Both (b) and (c)

3. The Indian perception of the USSR was always
   (a) Negative
   (b) Neutral
   (c) Counter – reactionary
   (d) Applauding

4. The passage is
   (a) Descriptive
   (b) Paradoxical
   (c) Analytical
   (d) Thought provoking

Sample Questions for M.P. Ed.

1. India played hockey for the first time on Olympic Games in:
   A) 1924, Paris (France)
   B) 1928, Amsterdam
   C) 1932, Los Angles (USA)
   D) 1938, Berlin (Germany)
2. "A state of complete physical mental and social wellbeing and not merely the absence of disease or infirmity". This statement which defines health is given by:
   A) UNESCO B) UNICEF
   C) WHO D) Red Cross
3. Three of the following are alike in a certain way and so they form a group. Which is the one does not belong to the group?
   A) Basketball
   B) Volleyball
   C) Hockey
   D) Table Tennis
4. The Sacrum consists of:
   A) 3 Vertebraes
   B) 4 Vertebraes
   C) 5 Vertebraes
   D) 7 Vertebraes
5. The chief sources of vitamin A is:
   A) Banana
   B) Egg
   C) Carrot
   D) Guava
6. What is the stick used in snooker called:
   A) A Cue
   B) Heave
   C) Paddle
   D) Togo
7. "Shivanthi Gold Cup" is associated with the game of:
   A) Hockey
   B) Football
   C) Volleyball
   D) Badminton
8. What is the normal life span of RBC's?
   A) 60 days
   B) 90 days
   C) 120 days
   D) 150 days
9. Chronological age is calculated with the help of
   A) Mental qualities
   B) X-rays
   C) Calendar Years
   D) Organs and secretions
10. YMCA College of Physical Education (Madras) was established in:
    A) 1956
    B) 1920
    C) 1931
    D) 1932

Sample Questions for B.P. Ed.

1. The 'Santosh Trophy' tournament first began in:
   A) 1940 B) 1941
   C) 1942 D) 1945
2. Who is the first teacher of a child?
   A) Teacher
   B) His Parents
   C) His environment
   D) His own conscious mind
3. The first Modern Olympic games were held in the Year:
   A) 1892
   B) 1896
   C) 1900
   D) 1904
4. Find the odd personality:
   A) Baichung Bhutia
   B) Kapil Dev
   C) Pete Sampras
   D) Jarnail singh
5. Which of the following tournaments is not a part of Grand Slam Tennis?
   A) Australian Open
   B) Wimbledon
   C) U.S. Open
   D) German Open
6. Which one of the following is different from the rest of the three?
   A) Footbal
   B) Basketball
   C) Cricket
   D) Tennis
7. The name of 'Tiger Woods' is associated with:
   A) Boxing
   B) B) Tennis
   C) Football
   D) Golf
8. Thomas Cup' is associated with:
   A) Badminton (women)
   B) Badminton (men)
   C) Table Tennis (women)
   D) Table Tennis (men)
9. Most import ant component of level of living is?
   A) Health
   B) Occupation
   C) Education
   D) Housing
10. Vinay is taller than Manu, but not as tall as Yogesh, Karim is taller than Dillip but shorter than Manu, Who is the tallest among them?
    A) Vinay
    B) Yogesh
    C) Karim
    D) Manu

Sample Questions for M.Sc. (Hons.) Biochemistry

1. In mammals nor-epinephrine is synthesize from:
   A) Pyruvate
   B) Arginine
   C) Catechol
   D) Tyrosine
2. Hyperglycemic agent secreted by the pancreas is:
   A) Insulin
   B) Lipase
   C) Glucagon
   D) FSH
3. Feeding of raw egg may result in the deficiency of:
   A) Vitamin A
   B) Choline
   C) Biotin
   D) Riboflavin
4. What role RNA plays in the replication of DNA:
   A) It acts as template
   B) It acts as primer
   C) It acts as cofactor
   D) It is essential activator of DNA polymerase
5. Which of the following is not involved in antigen – antibody binding:
   A) Hydrogen bonds
   B) Ionic Bonds
   C) Hydrophobic Interactions
   D) Disulphide Bonds
6. The movement of ions through ion channels can be measured with the help of:
   A) Extra cellular electrode
   B) Intra cellular electrode
   C) Patch – clamp technique
   D) Liposome fusion technique
7. The synthesis of most neuronal proteins occurs in the:
   A) Cell body
   B) Axon
   C) Synapses
8. D) Dendrites
   Which of the following amino acid does nc form peptide bond:
   A) Cysteine
   B) Proline
   C) Lysine
9. D) Glycine
   Lysozyme is an enzyme which:
   A) Hydrolyses bacterial cell wall
   B) Is made up of RNA
   C) Contains phospholipids
10. D) Breaks lipoproteins
    Formation of uric acid from purines is catalysed by:
    A) Urease
    B) Uricase
    C) Xanthine oxidase
    D) Adenosine deaminase

Sample Paper of Biophysics

1. If $\bar{A} + \bar{B} = 0$
   A) Vector $\bar{A}$ and $\bar{B}$ are perpendicular to each other.
   B) Vector $\bar{A}$ and $\bar{B}$ are necessarily parallel.
   C) Vector $\bar{A}$ and $\bar{B}$ must be antiparallel.
   D) Vector $\bar{A}$ and $\bar{B}$ may be parallel or antiparallel.
2. The minimum charge on a body can be:
   A) one coulomb
   B) one stat coulomb
   C) $1.6*10^{-19}$ coulomb
   D) 3.2×10^{-19} coulomb
3. The potential due to an electric dipole varies
   A) inversely as the distance
   B) directly as the distance
   C) inversely as the square of distance
   D) directly as the square of distance
4. Which of these techniques does not give information about the dimensions of DNA molecule?
   A) Viscosity measurement
   B) light scattering
   C) flow-birefringence
   D) Atomic Absorption spectroscopy
5. Fluorescence of a protein can be due to
   A) tryptophan
   B) tyrosine
   C) phenylalanine
   D) all the above
6. The aromatic amino acids are important because:
   A) they are ionized by light of wavelength 280mm.
   B) they are actually imino acids that cannot rotate through the angle phi.
   C) they give proteins their absorbance at 280 nm
   D) they are source of disulfide bonds within the exported proteins
7. The Henderson-Hasselbalch equation states that:
   A) $P^k = P^H + \log R$
   B) $P^H = Pk + \log R$
   C) $P^H = pk - \log R$
   D) $R = p^k - p^H$
8. The proteins that run the fastest in SDS-PAGE are
   A) Large
   B) Small
   C) Negatively charged
   D) Positively charged
9. The auditions $a \neq b \neq c$, $\alpha = \gamma = 90^o$ $\beta \neq 90$- describe the ……Unit cell
   A) tetragonal
   B) orthorhombic
   C) monoclinic
   D) trigonal
10. The electromagnetic radiation with longest wavelength. is:
    A) Visible Light
    B) Radiowaves
    C) Microwaves
    D) IR
20. Mass spectrometry is an analytical technique for the identification of molecules by way of measuring their:
    A) mass only B) charge only
    C) mass to charge ratio
    B) charge to mass ratio
21. Micro array analysis is used for
    A) quantization of gene expression
    B) to check the quality of gene expression
    C) for measuring the copy number
    D) to identity new genes
22. Component of atom involved in study of structure with X-ray crystallography
    A) Nucleus
    B) Electron
    C) proton
    D) Neutrons
23. The radius of an atom is approximately
    A) 10^{-10} m
    B) 10^{-12} m
    C) 10^{-13} m
    D) 10^{-16} m
24. Rays similar to x-rays but of smaller wavelength that are given off by radioactive Substances are
    A) alpha rays
    B) beta rays
    C) gamma rays
    D) cosmic rays
25. Antiparticle of electron is
    A) proton
    B) Antiproton
    C) Positron
    D) Neutron
26. Atomic force microscope was invented in which Year:
    A) 1972 B) 1986
    C) 2001 D) 1980
27. Nucleic acid absorption (A_{260}) changes in different states. It is maximum when it is:
    A) Double stranded
    B) Single stranded
    C) All nucleotides are separated
    D) Fragmented
28. Which out of these is not a connective tissue:
    A) Cartilage
    B) bone
    C) muscle
    D) blood
29 Which of these is not a characteristic of the Cardiac muscle:
    A) nonstriated
    B) Presence of intercalated disc
    C) Involuntary
    D) Presence of actin and myosin filaments.
30. Fertilization occurs in which region of female reproductive part:
    A) Infundibulum
    B) ampulla
    C) Isthmus
    D) Uterus

11. Of the following which has got the highest frequency?
    A) ultraviolet rays
    B) gamma rays
    C) radio waves
    D) infrared waves
12. The value of atomic mass unit is:
    A) 1.66×10^{-27} Kg
    B) 1.66×10^{-28} Kg
    C) 1.66×10^{-29} Kg
    D) 1.66×10^{-24} Kg

13. The peptide bond in protein is
    A) Planar, but rotates to three preferred dihedral angles
    B)Nonpolar, but rotates to the three preferred dihedral angles
    C)Nonpolar, and fixed in a trans conformation
    D)Planar, and usually found in a trans conformation

14. The lactoferrin is produced by:
    A) Spermatogonia
    B) Reticulocytes
    C) Amebocytes
    D) Neutrophils

15. During generation of action potential, depolarization is due to
    A) k^+ -efflux
    B) Na^+ -efflux
    C) K^+ -influx
    D) Na^+ -infflux

16. Which of the following wave is likely to be absent in ECG
    A) P
    B) T
    C) Q
    D) R

17. Indirect immnuofluorescene involves fluorescently labeled
    A) Immunoglobulin-specific antibodies
    B) Antigen-specific antibodies
    C) Hapten – specific antibodies
    D) Carrier – specific antibodies
18. Prostaglandins are
    A) C20 unsaturated fatty acids
    B) C27 saturated alcohols
    C) C20 saturated fatty acids
    D) C27 unsaturated alcohols

19. Apart from the proton which other nuclei of the following is used for NMR.
    A) ^{13}C
    B) ^{12}C
    C) ^{16}O
    D) ^{32}P

31. Brunner glands are present in:
    A) Colon
    B) jejunum
    C) duodenum
    D) ileum
32. A rickshaw puller remembers a large number of places and has the ability to find shortcuts and new routes between familiar places. Which region of the brain is responsible for this?
    A) Pituitary
    B) Thalamus
    C) Hypothalamus
    D) Hippocampus
33. A Ramachandran plot show:-
    A) The angles that are allowed between the bonds connecting the amide nitrogen in a peptide bond
    B) The sterically limited rotational angles where phi and psii are allowed in the protein backbone.
    C) The amino acid residues that have the greatest degrees of rotational freedom
    D) The sterically allowed rotational angles between the side chain groups in a peptide backbone.
34. The most sensitive for the lethal effects of radiation is
    A) Preimplantation
    B) Early organogensis
    C) Late organogensis
    D) The fetal period
35. Which of the following is the primary factor regulating normal coronary blood flow
    A) Aortic diastolic pressure
    B) Coronary perfusion pressure
    C) Systolic wall pressure
    D) Myocardial oxygen consumption
36. The term satellite DNA refers to
    A) extrachromosomal DNA fragments that are found closed to (orbiting) the full length chromosomes
    B) Mitochondrial DNA, which is circular in nature
    C) Long tandem repeats of simple DNA sequences
    D) Mobile DNA elements such as transposons and insertion sequences
37. The number of atoms in a crystal which surrounded a particular atom as its nearest neighbours is called
    A) Charge number
    B) Atomic packing factor
    C) Coordination number
    D) Lattice
38. EPR spectrum is due to
    A) Change in mass state of an electron
    B) Change in L-K transition of an electron
    C) Change in spin state of an electron
    D) Change in both L-K transition and mass of an electron

Sample Questions for M.Sc. (Hons.) Mathematics

Let G be a group of order 147. For any $a \in G$, $a \neq e$, the number of solutions of $x^2 = a$ is

A) 49
B) one
C) three
D) zero

In the ring $Z[i]$, where Z is the ring of integers, the element $1-i$

A) is both irreducible as well as prime
B) is neither irreducible nor prime
C) is irreducible but not prime
D) is prime but not irreducible

The equation of the tangent to the curve $f(x,y)$ =0 at any point (a,b) is given by

A) $(x-a)\frac{\partial f}{\partial y}(a,b)+(y-b)\frac{\partial f}{\partial x}(a,b)=0$

B) $(x-a)\frac{\partial f}{\partial y}(a,b)-(y-b)\frac{\partial f}{\partial x}(a,b)=0$

C) $(y-b)\frac{\partial f}{\partial y}(a,b)+(x-a)\frac{\partial f}{\partial x}(a,b)=0$ 6

(D) $(x-a)\frac{\partial f}{\partial x}(a,b)-(y-b)\frac{\partial f}{\partial y}(a,b)=0$

Two spheres

$x^2+y^2+z^2+2u_1x+2v_1y+2w_1z+d_1=0$
$x^2+y^2+z^2+2u_2x+2v_2y+2w_2z+d_2=0$

cut each other orthogonally if

(A) $2u_1u_2+2v_1v_2+2w_1w_2=d_1+d_2$
(B) $u_1u_2+v_1v_2+w_1w_2=0$
(C) $\frac{u_1}{u_2}=\frac{v_1}{v_2}=\frac{w_1}{w_2}=\frac{d_1}{d_2}$
(D) $2(u_1-u_2)+2(v_1-v_2)+2(w_1-w_2)=(d_1-d_2)$

The series $\sum\frac{1}{n(\log n)^p}$ is

(A) convergent if $p>0$
(B) convergent if $p>1$
(C) divergent if $p>1$
(D) convergent if $0<p<1$

6. The integrating factor of the differential $\frac{\partial y}{\partial x}+2xy=4x^3$ is given by
(A) e^{y^2}
(B) e^{x^2}
(C) e^x
D) e^y

7. If $\phi(x_1y_1z_1=3x^2y-y^3z^2$, then $\nabla\phi$ at the point $(1,-2,1)$ is
(A) $-12\hat{i}-9\hat{j}-16\hat{k}$
(B) $12\hat{i}+9\hat{j}-16\hat{k}$
(C) $-12\hat{i}+9\hat{j}+16\hat{k}$
(D) $-12\hat{i}+9\hat{j}-16\hat{k}$

8. If one root of the equation $x^3-13x^2+15x+189=0$ exceeds the other by 2, then all the roots are
(A) 7, 9 and 3
(B) -7, -9 and -3
(C) 7, 9 and –3
(D) -7, -9 and 3

9. Two forces 13 kg.wt. and $3\sqrt{3}$ kg.wt. act on a particle at an angle θ and equal to a resultant force of 14 kg.wt., then the angle between the forces is
(A) 45^0
(B) 30^0
(C) 60^0
(D) 90^0

10. Let W_1 and W_2 be subspaces of dimensions 5 and 4 respectively of a vector space V of dimension 6. Then dim $(W_1 \cap W_2)$ is
(A) Zero
(B) one
(C) at most two
(D) at least three

Sample Questions for M.Sc. 2-Year Course Bioinformatics/ System Biology and Bioinformatics

1. Which are the repositories for raw sequence data
   A) Gen Bank
   B) EMBL
   C) DDBJ
   D) GGPP

2. Which of the following annotation is not provided by SWISS-PROT
   A) Protein function
   B) Domain structure
   C) Post translation modification
   D) Crystal formations

3. Which is the most important computer language used in Bioinformatics
   A) Pascal
   B) Perl
   C) Java
   D) C++

4. Which type of analysis cannot be performed on *raw DNA sequence* using Bioinformatics tools
   A) Identifying coding regions
   B) Identification of introns and exons
   C) Gene product prediction
   D) Identifying *cis* and *trans* regions

5. OMIM is engaged in study of
   A) Human molecular Biology
   B) Plant molecular biology
   C) Bacterial molecular biology
   D) Yeast Molecular biology

6. Which of the following sequence is correct:
   A) DNA, RNA, Protein
   B) DNA, Protein, RNA
   C) RNA, DNA, Protein
   D) Protein, DNA, RNA

7. Which is not the method of protein/DNA sequence alignment
   A) Matrix
   B) Brute force
   C) Dynamic programming
   D) Heuristic methods

8. The method not used in NSA programming is
   A) Sum of pairs methods
   B) Spare alignment
   C) Two step method
   D) Fitch/Margoliosh method

9. Distance matrix method are used for
   A) Carbohydrate structure prediction
   B) Proteins structure prediction
   C) Phylogenetic analysis
   D) Primer design

10. FASTA-BLAST, WU-BLAST are programmes used for determining
    A) Sequence similarity of Protein only
    B) Sequence similarity of DNA only
    C) Sequence similarity of Carbohydrate only
    D) Sequence similarity of Protein and DNA

Sample Questions for M.Sc. (Environment)

1. A thin copper wire of length one metre increases in length by 4% when heated by 10^{o}C. What will be the per cent increase in area when a square copper sheet of side one metre is heated by 10^{o}C?
   A) 4%
   B) 8%
   C) 16%
   D) 24%

2. If the unit of length and force are increased by 4 times, the unit of energy gets increased by how many times?
   A) 4 times
   B) 8 times
   C) 16 times
   D) does not change

3. The scientific principle involved in radio and television is:
   A) Superconductivity
   B) Semiconductiography
   C) Propagation of e.m. waves
   D) Electromagnetic induction

4. A passenger in a moving train tosses a coin. If it falls behind him, the train must be moving with
   A) An acceleration
   B) A deceleration
   C) Uniform speed
   D) It can never happen

10. Which of the following is a deadly nerve gas developed during the second world war?
    A) Nitric oxide
    B) Phosgene
    C) Sarine
    D) Dioxin

11. The natural rubber obtained from trees is made of:
    A) Isoprene units
    B) Vinyl chloride
    C) Acetylene
    D) Neoprene

12. Which of the following is differentially permeable?
    A) Cell wall
    B) Tonoplast
    C) Nuclear membrane
    D) Cytoplasm

13. Which of the following prevents leaf shedding in plant?
    A) Auxins
    B) Gibberellins
    C) Cytokinins
    D) Abscisic acid

14. Sugar in chloroplast is synthesized in:
    A) Quantasomes
    B) Stroma
    C) Thylakoids
    D) Matrix

5. Zero error of an instrument introduces:
   A) Systematic error
   B) Random error
   C) Per cent error
   D) Means no error
6. The Science of surveying and mapping the earth's surface is known as:
   A) Cartography
   B) Geodesy
   C) Topography
   D) Scienodsy
7. The gravitational force with which a body is attracted towards the earth is
   A) Maximum at the equator and minimum at the poles
   B) Minimum at the equator and maximum at the poles
   C) The same at the equator and the poles
   D) Depends on the altitude at the given point
8. Which of the following is used as an antiseptic?
   A) Iodine
   B) Bromine
   C) Chlorine
   D) Fluorine
9. Washing soaps produces a scum with hard water and not much of foam, because the hard water contains:
   A) Many suspended particles
   B) Many dissolved inorganic salts
   C) Chalk and sulphur
   D) Dissolved organic matter
15. The structure of protoplasm is:
   A) Granular
   B) Fibrillar
   C) Reticular
   D) Colloidal Matrix
16. Which of the following could be 'cancer' of the lymph nodes and spleen?
   A) Carcinoma
   B) Sarcoma
   C) Leukemia
   D) Lymphoma
17. The major component of Bacterial cell wall is
   A) Xylan
   B) Chitin
   C) Peptidoglycan
   D) Cellulose
18. How many bones does the Cranium of man have?
   A) 8 B) 12
   C) 16 D) 20
19. When is the world Population day celebrated?
   A) August 3
   B) April 16
   C) October 18
   D) July 11
20. In a Nuclear Reactor the heavy water is used to :
   A) cool the neutrons
   B) slow down the neutrons
   C) absorb the neutrons
   D) control the number of neutrons

Sample Questions for M.Sc. (Human Genomics)

1. Which one of the following is an essential component of DNA?
   A) Protein
   B) Carbohydrate
   C) Lipids
   D) Vitamins
2. Three types of RNA involved in comprising the structural and functional core for protein synthesis, serving as a template for translation, and transporting amino acid, respectively, are:
   A) mRNA, tRNA, rRNA
   B) rRNA, tRNA, mRNA
   C) tRNA, mRNA, rRNA
   D) rRNA, mRNA ,tRNA
3. A synthetic mRNA of repeating sequence 5'-CACACACACACACACAC... is used for a cell-free protein synthesizing system like the one used by Nuremberg. If we assume that protein synthesis can begin without the need for an initiator codon, what product or products would you expect to occur after protein synthesis.
   A) One protein consisting of a single amino acid
   B) Three proteins , each consisting of a different , single amino acid
   C) One protein, with an alternating sequence of two different amino acids
   D) Two proteins, each with an alternating
5. Signaling between cells usually results in the activation of protein
   A) lipase
   B) kinases
   C) proteases
   D) nuclease
6. Highly repetitive DNA has
   A) a very short repeating sequence and no coding function
   B) a moderate repeating sequence and a coding for house keeping gene
   C) a simple repeat sequence and no coding function
   D) None of the above
7. From which grandparent or grandparents did you inherit your mitochondria? Is it your:
   A) mother's parents
   B) paternal grandfather
   C) grand mothers
   D) maternal grandmother
8. What are the possible blood types of the offspring of a cross between individuals that are type AB and type O? (Hint: blood type O is recessive)
   A) AB or O
   B) A, B, or O
   C) A or B

sequence of two different amino acids.

4. A replicon is:
   A) an enzyme complex that replicates DNA
   B) the amount of time required to duplicate a genome
   C) larger in complex eukaryotes and smaller in bacteria
   D) the DNA sequences that specify and are replicated by a single replication initiation event

   D) A, B, AB, or O

9. A woman with an X-linked dominant disorder mates with a phenotypically normal male. On average, what proportion of this couple's daughters will be affected with the disorder?
   A) 0.5
   B) 1.0
   C) 0.75
   D) 0.25

10. A messenger acid is 336 nucleotides long, including the initiator and termination codons. The number of amino acids in the protein translated from this mRNA is:
   A) 999
   B) 630
   C) 330
   D) 111

Sample Questions for M.Sc. in Nuclear Medicine

1. We can't produce colors with white light through:
   A) Interference
   B) Polarization
   C) Diffraction
   D) Dispersion
2. Methods of Fourier Transformation are applied in
   A) Nuclear Magnetic Resonance
   B) X-ray crystallography
   C) Medical Imaging
   D) All of the above
3. Which one of the following is correctly matched?
   A) Chloroplast – storage of enzymes
   B) Lysosome – powerhouse of cell
   C) Nucleolus – stie of ribosomal synthesis
   D) Glyoxysome – structural support of cell
4. Which amino acid can stabilize protein structure by forming covalent cross links between polypeptide chins?
   A) Ser
   B) Gly
   C) Glu
   D) Cys
5. In CT imaging the phenomenon used is
   A) Radiation absorption
   B) Radiation damage
   C) Free radical formation
   D) Radiation fluorescence
6. Macrophage – like cells in the connective tissue are
   A) Osteoclasts
   B) Mesanglial cells
   C) Histiocytes
   D) Microglial cells
7. Zinc finger proteins and helix-turn-helix proteins are:
   A) Types of DNA-binding proteins
   B) Involved in the control of translation
   C) Components of ribosomes
   D) Part of the hemoglobin in blood cells
8. Transcription of DNA into mRNA is catalyzed by
   A) DNA polymerase
   B) RNA synthetase
   C) RNA polymerase
   D) Rnase
9. Which nitrogenous bases is NOT found in DNA?
   A) Thymine
   B) Uracil
   C) Adenine
   D) gunanine
10. How would the complementary strand of DNA appear if the original strand of DNA contained the bases T-A-G-C in the order?
   A) U-A-C-G
   B) G-C-A-T
   C) T-A-C-G
   D) A-T-C-G

Sample Questions for M.Sc. in Forensic Science & Criminology

Section A: General Science (Compulsory)

1. Which acid is produced when milk gets sour?
A) Tartaric Acid
B) Butyric Acid
C) Lactic Acid
D) Acetic Acid

Section B: Any two of the four sub-sections

Biology

1. The most abundant protein on earth is
   A) Keratin
   B) Rubisco
   C) RuBP
   D) Fibrinogen

2. The bond which is present between water molecules is:
A) Electrovalent bond
B) Covalent bond
C) Hydrogen bond
D) Vander Waalls bond

3. The number of Chromosomes pairs in Human body are :
A) 23
B) 42
C) 46
D) None of above

4) The mass of the body at the centre of earth is
A) Less than at the surface
B) Remains constant
C) More than the surface
D) Zero

Forensic Science

1. Who suggested the practical method of finger-printing and their classification
A) Francis Galton
B) Henry Faulds
C) Albert Osborn
D) Calvin Goddard

2. Study of the motion of a projectile from the muzzle of the weapon to the target is
A) External Ballistics
B) Terminal Ballistics
C) Internal Ballistics
D) None of the above

2. Type of mimicry in which both the minic and model are harmful (unpalatable) to the predator
B) Batesian mimicry
C) Mullerian mimicry
D) Warning mimicry
E) Concealing mimicry

Chemistry

1. The correct decreasing order of the boiling points is
A) NH_3>H_2O> HF
B) H_2O> HF>NH_3
C) NH_3> HF > H_2O
D) HF>H_2O>NH_3

2. The element that shows both +3 and +4 oxidation is
A) Cerium
B) Promethium
C) Gadolinium
D) Holmium

Physics

1. Where can Maxwell's equation be derived
A) Gauss's las
B) Gauss's magnetic law
C) Faraday law
D) All the above

2. A particle executive a vibratory motion passing through mean point has
A) Maximum potential energy and minimum kinetic energy
B) Maximum kinetic energy and minimum potential energy
C) Kinetic energy and potential energy both maximum
D) Kinetic energy and potential energy both minimum

Sample Questions for M.Sc. Statistics

1. $\lim_{x\to 0} \frac{\sin(\pi \cos^2 x)}{x^2}$ is
(a) π
(b) 1
(c) $-\pi$
(d) $\pi/2$

2. For $x \varepsilon \mathcal{R}, \lim_{x\to\infty} \left(\frac{x-3}{x+2}\right)^x$ is
(a) e^{-1}
(b) e
(c) e^{-5}
(d) e^5

3. The value of $\int_{-1}^{2} |[x] - \{x\}|\, dx$, where $[x]$ is the greatest integer less then or equal to x and $\{x\}$ is the fractional part of x is
(a) 7/2
(b) 5/2
(c) 1/2
(d) 3/2

4. The value of $\int_{1/3}^{3} \frac{1}{x} Sin\left(\frac{1}{x} - x\right) dx$ is

5. The number of accidents per week in a small city has a Poisson distribution with mean equal to 3. The probability of exactly 2 accidents in 2 weeks is
(a) $2e^{-3}$ (b) $9e^{-3}$ (c) $18e^{-6}$ (d) $18e^{-3}$

6. The Quadratic form Q(x, y, z) = x^2 + $3y^2$ + $2z^2$ is
(a) Positive definite (b) Positive semi-definite (c) Negative definite (d) Indefinite

7. The function

$$f(x) = \begin{cases} \dfrac{\sin x}{x} & for\ x \neq 0 \\ 1 & for\ x = 0 \end{cases}$$

is
(a) continuous at x = 0
(b) not continuous at x = 0
(c) not differentiable at x = 0
(d) nowhere differentiable at x = 0

8. Let A be a n × n real matrix. Then, which of the following statements is true?
(a) If the eigenvalues of A are $\lambda_1, \ldots, \lambda_n$, then A is similar to a diagonal matrix with $\lambda_1, \ldots, \lambda_n$ along the diagonal.
(b) If rank (A) = r, then A has 'r' non-zero eigenvalues.
(c) If $A^k = 0$ for some k > 0, then trace(A) = 0.
(d) If A has a repeated eigenvalue, then A is not diagonalizable.

9. The system of equations 4x + 6y = 5, 8x + 12y = 10 has:
(a) A unique solution
(b) No solution
(c) Infinitely many solutions
(d) None of the above

10. If two matrices A and B have the same size and the same rank, then
(a) they have determinant 0
(b) they are equivalent
(c) A and B have common elements.
(d) A and B have at least two elements common

11. The system AX = O in 'n' unknowns has only trivial solution if:
(a) ρ(A) $>n$
(b) ρ(A) $<n$
(c) ρ(A)=n
(d) ρ(A)≥n

12. Let F and G be two events in the sample space S such that P(F U G) = .8, P(F)= p and P(G) = .3. The value of p for which F and G are independent is:
A. .5
B. .6
C. 2/3
D. 1/5

13. The particular integral of $(D^2 + D)y = x^2 + 2x + 4$ is
A. 4x+c B. $x^3 + 2x^2 + 4x$ C. $x^3/3 + 2x^2 + 4x$ D. $x^3/3 + 4x$

14. The value of $\int_C \frac{Z-3}{Z^2+2Z+5}\, dz$, where C: |Z+1-i|= 2 is:
A. 0 B (i-2) C. π ((i-2) D. π/2

15. The residue of f(Z) = $\frac{Z^2}{(Z-1)^2(Z+2)}$ at pole 1 is :
A. 1/3 B. 5/9 C. 2/3 D. 0

16. The complete solution of (x+1) dy/dx –y = $e^{3x}(1+x^2)$ is :
A. -1/(x+1) B. 1/(x+1) C. (e^{3x} /3 + c) (1+x)
D. (e^{3x} /3 + c)

17. The solution of p = sin (y-px) , where p = dy/dx, is
A. px + $\sin^{-1}$p B. cx + $\sin^{-1}$c C. cx
D. $\sin^{-1}$c

18. The value of k for which the area under the curve f(x) = k(y+1) , 2<y< 4 and zero otherwise, will be one is:
A. 1/8 B . 8 C. 1 D. ¾

19. The value of $\int_0^\infty xe^{-x/2}\, dx$ is:
A. 2 B. 1 C. 4 D ½

20. A person selects two items randomly, one by one without replacement, from a lot containing 4 defective and 6 non-defective items. The probability that second drawn item will be defective given that first was non defective is:
A. 4/15 B. 6/25 C. 4/9 D. 4/10

21. Random variable X follows Poisson distribution such that 3 P[X = 1] = 2 p[X = 2]. The mean of X is:
A. 2 B. 3 C. 3/2 D. 1

Sample Questions for M.Sc. (Hons. School) Geology

1.A Sandstonde containing of at least 25% Feldspar is :

A) Orthoquarzite
B) Arkose
C) Graywacke
D) Sublithic Wacke

2. An intergrowth texture in which plagioclase contains inclusion of potash feldspar is known as :

A) Perthite
B) Antiperthite
C) Graphic
D) Seriate

3. Which of the following rock is not of metamorphic origin:

A) Slate
B) Phyllite
C) Schist
D) Shale

4. Mica Plate gives the retardation of:

A) 1 Lameda
B) ½ Lameda
C) ¼ Lameda
D) Variable retardation

5. Which of the following mineral is Aluminosilicate:

A) Quartz
B) Garnet
C) Biotite
D) Sillimanite, Robins, Crows

Sample Question Paper for M.Sc. (2 Year Course) Microbial Biotechnology

1. *'Phycobilins'* are
   A. light-capturing bilins found in cyanobacteria and red algae
   B. light-capturing bilins found in brown algae
   C. Pigments produced in bile that helps in lipid absorption
   D. Photosynthetic pigments found in *Chlorela*
2. The first immunoglobulin heavy chain class to be expressed on the surface of a newly produced B-cell is
   A. IgA
   B. IgD
   C. IgG
   D. IgM
3. Ebola is a
   A. Hemorrhagic fever of humans and other primates caused by ebolaviruses
   B. Prion disease of primates and humans
   C. Equine bolus Aswan syndrome caused by unknown aetiological agent
   D. Bacterial febrile illness that leads to sudden death
4. The N_2 fixation reaction catalysed by the enzyme nitrogenase is a high energy demanding reaction that requires approximately
   A. 12 ATP
   B. 25 ATP
   C. 18 ATP
   D. 7 ATP
5. In light microscopy, if the wavelength of the light illuminating a sample is increased the resolving limit and the resolving power of the microscope will_____ and_____, respectively.
   A. Increase; increase
   B. Increase; Decrease
   C. Decrease; Increase
   D. Decrease; Decrease
6. The affinity of an enzyme for its substrate, when the enzyme has a K_m of 0.50 mM will be _____ than the affinity of an enzyme for its substrate when the enzyme has a K_m of 0.05 mM.
   A. Half
   B. Greater
   C. Lesser
   D. Equal
7. Separation of charged molecules based on their varying rates of migration through a solid porous matrix when subjected to an electric field is popularly known as
   A. Photoreactivation
   B. Blotting
   C. Autoradiography
   D. Gel electrophoresis
8. For recovering citric acid from culture medium after the fermentation, $Ca(OH)_2$ is added to the slurry to
   A. Precipitate calcium carbonate
   B. Precipitate calcium sulphate
   C. Precipitate calcium phosphate
   D. Precipitate calcium citrate
9. The X-gal routinely used in the biotechnology laboratories for clone identification by Blue-white assay is chemically
   A. 5-bromo-4-chloro-3-indolyl-β-D-galactopyranoside
   B. 5-chroro-4-bromo-3-indolyl-β-D-galactopyranoside
   C. 4-bromo-5-chloro-3-indolyl-β-D-galactopyranoside
   D. 4-chloro-5-bromo-3-indolyl-β-D-galactopyranoside
10. During protein synthesis, the amino acid charged tRNA _____comes and binds to the initiator (or start) codon present on _____site of prokaryotic Ribosome
    A. Met-tRNA^{Met}; A-site
    B. fMet-tRNA$_f^{Met}$; P- site
    C. fMet-tRNA$_f^{Met}$; A site
    D. Met-tRNA^{Met}; P-site

Sample Questions for M.Sc. in Biotechnology

1. Correct sequence of stages in cell cycle is
A) G1, S, G2, M
B) S, G2, M, G1
C) G1, G2, M, S
D) G1, G2, S, M

2. Which of the following does not contain both DNA and RNA?
A) Yeast
B) Bacteria
C) Mycoplasma
D) Virus

3. Which of the following is not an antibacterial antibiotic
A) Tetracyclin
B) Ampicillin
C) Nystatin
D) Nalidixic acid

2. The development of egg without fertilization is called
A) Blastgenesis
B) Parthenogenesis
C) Cogenesis
D) Gametogenesis
E)

3. TATA box and Pribnow box are components of
A) Operators
B) Promoters
C) Enhancers
D) Activators

4. Peptide chain elongation involves all the following except
A) peptidyl transferas
B) GTP
C) Tu, Ts and G factors
D) Formyl tRNA

7. The smallest unit of DNA capable of coding for the synthesis of a polypeptide is the
A) Operon
B) cistron
C) promoter
D) replicon

8. Exonuclease is an enzyme, which cleaves DNA from
A) 3’ end
B) 5’ end
C) both 3’ and 5’ end
D) internal bonds in DNA

9. Which of the following is not part of the *lac* operon of *E. coli*?
A) genes for inducible enzymes of lactose metabolism
B) genes for the repressor, a regulatory protein
C) gene for RNA polymerase
D) a promoter, the RNA polymerase binding site

10. Which of the following primers would allow copying of the single-stranded DNA sequence 5' ATGCCTAGGTC?
A) 5’ ATGCC,
B) 5’ TACGG
C) 5’ CTGGA
D) 5’ GACCT

Sample Questions for M.Sc. (Hons.) Botany

1. In C_4 plants the first CO_2 acceptor is :
   A) Ribulose – 1,5-bisphosphate
   B) Phosphenol pyruvate
   C) Pyruvate
   D) Ribulose-5-phosphate
2. In majority of angiosperms, the female gametophyte at the time of fertilization is :
   A) 8-celled
   B) 7-celled
   C) 6-celled
   D) 4-celled
3. Agar-agar is extracted from which of the following genera
   A) Gracilaria
   B) Dictyota
   C) Ectocarpus
   D) Laminaria
4. Black rust of wheat is caused by :
   A) Ustilago tritici
   B) Puccinia graminis tritici
   C) Protomyces macrosporus
   D) Albugo candida
5. Oomycota is a phylum in kingdom:
   A) Fungi
   B) Chromista
   C) Protozoa
   D) Mycota
6. Cystidium is a
   A) Sterile element occurring in the hymenium of certain Basidiomycetes
   B) Reproductive organ of a green alga
   C) Fertile part of lichen thallus
   D) Asexual spore
7. Most bryophytes are autotrophic but a few are more or less saprophytic. Which of the following is totally devoid of chlorophyll and depends upon a mycorrhizal association for its growth and development?
   A) *Cyptothallus mirabilis*
   B) *Funaria hygromitrica*
   C) Concephalum conium
   D) *Pellia epiphylla*
8. Somaclonal variations are:
   A) Variations produced during tissue culture
   B) Variations produced during sexual reproduction
   C) Variations caused by mutagenic chemicals
   D) Variations caused by Gamma rays
9. Trisomic condition is expressed as
   A) 2n-1
   B) 2n-2
   C) 2n+1
   D) 2n+2
10. The functional unit in ecology is the:
    A) Organism
    B) Biosphere
    C) Ecosystem
    D) Population

Sample Questions for M.Sc. (2 Year Course) Chemistry

1.Phenolic esters on heating with $AlCl_3$ gives o- and p- acyl phenol. This is termed as:

(A) Favorski rearrangement (B) Beckmann rearrangement
(C) Fries rearrangement (D) Wolff rearrangement

2. Product of the rapid photochemical reaction of following aromatic compound is:

3. With the molecular formula $C_9H_{11}Cl$ assign the plausible structure to the compound from the following sets of NMR data:

(i) Quintet (δ 2.15) 2H
(ii) Triplet (δ 2.75) 2H
(iii) Triplet (δ 3.38) 2H
(iv) Singlet (δ 7.22)5H

4.Ozonolysis of butan-1-ene followed by reduction with Zn / CH_3COOHgives:

(A) Acetaldehyde and formaldehyde B) Acetaldehyde and acetone

(C) Acetone and formaldehyde (D) Propionaldehyde and formaldehyde

5. The equilibrium constant of a reaction doubles on raising the temperature from 25°C to 35°C. Calculate ΔH° for the reaction(in KJ mol^{-1}):

(A) 52.89 (B) 0
(C) 60.5 (D) 46.3

6. No. of vibrational degree of freedom in benzene:

(A) 6 (B) 2
(C) 31 (D) None of the above

7. What is the constant volume heat capacity of an ideal monoatomic gas (in unit J K^{-1} mol^{-1})?

(A) 12.47 (B) 6.1
(C) 0 (D) Infinite

8. Average kinetic energy of the gas molecules at temperature, T is:

(A) 2/3 RT (B) 2/3 N_okT
(C) 3/2 N_oRT (D) 3/2 N_okT

9. $(C_2H_5)_2Zn$ on reaction with acetyl chloride gives:

(A) Butane (B) Butanoic acid
(C) Butanone (D) Butane

10. Which of the following combination of orbitals is not permissible?

(A) n = 3, l = 2, m = 0, s = -1/2 (B) n = 5, l = 0, m = 0, s = ½
(C) n = 2, l = 1, m = 0, s = 1/2 (D) n = 4, l = 3, m = -3, s = 0

11. Calculate the effective nuclear charge at the outer boundary of copper atom:

(A) 3.85 (B) 4.35
(C) 1.3 (D) 13.05

12. Which of the following has highest ionic mobility in aqueous solution?

(A) Li^+ B) Na^+
(C) K^+ (D) Cs^+

Sample Questions for M.Sc. (Hons.) Physics/ Physics (Specialisation in Electronics) / Medical Physics

1. Two electrons move in opposite directions at 0.70 c as measured in the laboratory. The speed of one electron as measured from the other is:-
   A) 0.35c
   B) 0.70c
   C) 0.94c
   D) 1.00 c

2. Which one of the following transformations is second order phase transition?
   A) Ferromagnetic state to the paramagnetic state
   B) Melting of ice
   C) Evaporation of materials
   D) Solidification of materials.

3 For which one of the following signal we

6. When the gate voltage becomes more negative in n-channel JFET, the channel between depletion layers:
   A) Shrinks
   B) Expands
   C) Conducts
   D) Stops conducting

7. Space quantization means that:
   A) Space is quantized
   B) L and U are in the same direction.
   C) L_z can have discrete values.
   D) An electron has magnetic dipole moment.

8. The electron density of states for a

requie an amplifier with minimum bandwidth:
A) Sine wave
B) Square wave
C) Triangular wave
D) Saw tooth wave

4. Two of maxwell's equations contain an integral over a closed surface. For them the infinitesimal vector area dA is always:
A) Tangent to the surface
B) Tangent to the field line
C) Perpendicular to the surface and pointing inward.
D) Perpendicular to the surface and pointing outward.
5. For the domestic ac supply of 220V, the breakdown voltage of a diode should be:
A) 130V
B) 163V
C) 220V
D) 330V

metal depends primarily on:
A) The temperature
B) The energy associated with the state
C) The size of the sample.
D) The mass of the sample.

9. Some alpha emitters have longer half-lives than others because:
A) Their alpha particles have greater mass.
B) Their alpha particles have less mass
C) Their potential barriers to decay are higher and wider
D) Their decays include the emission of photons.
10. In an alpha decay the disintegration energy appears mainly as
A) Photon energies
B) The kinetic energies of the alpha and the daughter nucleus
C) The excitation energy of the daughter nucleus
D) heat

Sample Questions for M.Sc. (Hons. / 2-Year Course) Zoology

1. Which of the following types of DNA replication or repair systems is dysfuncational in individuals with Xeroderma pigmentosum?
    A) Mismatch repair
    B) Base excision repair
    C) Nucleotide excision repair
    D) DNA helicase

2 The part of the embryo from which ectoderm, endoderm and mesoderm are formed in chick is known as
    A) Primitive streak
    B) Hypoblast
    C) Cytotrophoblast
    D) Epiblast

3. N- linked obligosaccharides on secreted glycoproteins are attached to
    A) Nirtogen atoms in the polypeptide backbone
    B) The serine or threonine in the sequence Asn-X-Ser/Thr
    C) The amino terminus of the protein
    D) The asparagines in the sequence Asn-X-Ser/Thr

4. Which of the following in star fish can turn inside out?
    A) Madreporite
    B) Stone canal
    C) Tube feet
    D) Cardiac stomach

5. Antennae in hymenoptera, dipteral and odonata are
    A) Short & filiform, aristate, geniculate respectively
    B) Short & filiform, geniculate, aristate respectively
    C) Geniculate, aristate, short & filiform respectively
    D) Aristate, geniculate, short & filiform respectively

6. Which of the following genus is the blood fluke of man and other animals?
    A) Schistosoma
    B) Ophisthorchis (Clonorchis)
    C) Paragonimus
    D) Diplozoom

7. Populations that are morphologicaly similar but do not interbreed for physciological or behavioural reasons are grouped as
    A) Races
    B) Varieties
    C) Sub-species
    D) Sibling species

8. The cranial capacity of which prehistoric human was almost the same as that of the modern man?
    A) Neanderthal man
    B) Peking man
    C) Java ape man
    D) Australophithecus man

9. An example of competitive inhibition of an enzyme is the inhibition of
    A) Succinic dehydrogenase by malonic acid
    B) Cytochrome oxidase by cyanide
    C) Hexokinase by glucose 6 phosphate
    D) Carbonic anhydrase by carbon dioxide

10. The isoelectric point of a protein is defined as
    A) The pH at which the net charge on the molecule is zero
    B) The pH at which all groups are protonated
    C) The pH at which all groups are unprotonated
    D) The pH at which each acidic groups is protonated and each basic groups is unprotonated.