

Topic:- BIOSCI MSC S2

1) Balbiani Rings occur in

[Question ID = 9207]

1. Autosomes [Option ID = 36822]
2. Heterosomes [Option ID = 36823]
3. Polytene chromosomes [Option ID = 36824]
4. Lampbrush chromosomes [Option ID = 36825]

Correct Answer :-

- Polytene chromosomes [Option ID = 36824]

2) Which of the following is NOT a type of cancer?

[Question ID = 9208]

1. Carcinomas  
[Option ID = 36826]
2. Sarcomas  
[Option ID = 36827]
3. Leukemia  
[Option ID = 36828]
4. Colitis  
[Option ID = 36829]

Correct Answer :-

- Colitis

[Option ID = 36829]

3) If DNA is damaged, which of the following genes arrest cell cycle?

[Question ID = 9209]

1. Rb [Option ID = 36830]
2. p53 [Option ID = 36831]
3. Hedgehog receptor [Option ID = 36832]
4. p16 [Option ID = 36833]

Correct Answer :-

- p53 [Option ID = 36831]

4) Name the term where a single pre-mRNA is processed into a number of products?

[Question ID = 9210]

1. Alternate splicing [Option ID = 36834]
2. Polyadenylation [Option ID = 36835]
3. Capping [Option ID = 36836]
4. Intron removal [Option ID = 36837]

Correct Answer :-

- Alternate splicing [Option ID = 36834]

5) What is the role of the sigma factor in transcription?

[Question ID = 9211]

1. Helicase action [Option ID = 36838]
2. Transcription initiation [Option ID = 36839]
3. Transcription elongation [Option ID = 36840]
4. Transcription termination [Option ID = 36841]

Correct Answer :-

- Transcription initiation [Option ID = 36839]

6) How many base pairs are there in every helical turn of Watson-Crick double helix model ?

[Question ID = 9212]

1. 32.3

[Option ID = 36842]

2. 20.6

[Option ID = 36843]

[Option ID = 36845]

**Correct Answer :-**

- 10.4

[Option ID = 36845]

**7) A purified DNA sample of leaf contains 20% of guanine. Calculate the approximate percentage of purine residues?**

**[Question ID = 9213]**

1. 30% [Option ID = 36846]
2. 40% [Option ID = 36847]
3. 50% [Option ID = 36848]
4. 60% [Option ID = 36849]

**Correct Answer :-**

- 50% [Option ID = 36848]

**8) How many numbers of replicon are found in E.coli?**

**[Question ID = 9214]**

1. Five replicon [Option ID = 36850]
2. Two replicon [Option ID = 36851]
3. Single replicon [Option ID = 36852]
4. Multiple replicon [Option ID = 36853]

**Correct Answer :-**

- Single replicon [Option ID = 36852]

**9) What is the role of snoRNA in eukaryotes?**

**[Question ID = 9215]**

1. Chemical modification of rRNA [Option ID = 36854]
2. RNA splicing [Option ID = 36855]
3. Act as adaptor RNA [Option ID = 36856]
4. Forms component of the ribosome [Option ID = 36857]

**Correct Answer :-**

- Chemical modification of rRNA [Option ID = 36854]

**10) Which of the following sequence of RNA is recognized by the small subunit of the ribosome?**

**[Question ID = 9216]**

1. Rho utilization site [Option ID = 36858]
2. Downstream sequence [Option ID = 36859]
3. Upstream sequence [Option ID = 36860]
4. Shine-Dalgarno sequence [Option ID = 36861]

**Correct Answer :-**

- Shine-Dalgarno sequence [Option ID = 36861]

**11) Which of the following acts as the major neurotransmitter in substantia nigra?**

**[Question ID = 9217]**

1. Dopamine [Option ID = 36862]
2. Noradrenaline [Option ID = 36863]
3. Acetylcholine [Option ID = 36864]
4. Serotonin [Option ID = 36865]

**Correct Answer :-**

- Dopamine [Option ID = 36862]

**12) The electrochemical equilibrium of a neuron can be calculated using which equation?**

**[Question ID = 9218]**

1. Bernouli equation [Option ID = 36866]
2. Henderson-Hassalbach equation [Option ID = 36867]
3. Leyden's equation [Option ID = 36868]
4. Nernst equation [Option ID = 36869]

**Correct Answer :-**

- Nernst equation [Option ID = 36869]

**13) Which is true about composition of Blood?**

**[Question ID = 9219]**

1. Plasma-55%, Protein/WBC-1%, RBC- 45% [Option ID = 36870]
2. Plasma-50%, Protein/WBC-3%, RBC- 47% [Option ID = 36871]



Correct Answer :-

- Plasma-55%, Protein/WBC-1%, RBC- 45% [Option ID = 36870]

**14) Which of the following statement is TRUE about the ear and hearing?**

**[Question ID = 9220]**

- The range of human hearing is from 20 Hz to 20 kHz [Option ID = 36874]
- Conductive hearing loss would be evident if a person had a similar degree of hearing loss for air conduction and bone conduction [Option ID = 36875]
- The ear is most sensitive to frequencies between about 100 Hz and 300 Hz [Option ID = 36876]
- The endolymph of the scala media is similar in composition to plasma [Option ID = 36877]

Correct Answer :-

- The range of human hearing is from 20 Hz to 20 kHz [Option ID = 36874]

**15) During isotonic contraction of a skeletal-muscle fibre, the**

**[Question ID = 9221]**

- (1) Sarcomeres shorten

[Option ID = 36878]

- (2) A bands shorten

[Option ID = 36879]

- (3) I bands shorten

[Option ID = 36880]

- (4) 1 and 3

[Option ID = 36881]

Correct Answer :-

- (4) 1 and 3

[Option ID = 36881]

**16) The rate-limiting factor in causing blood coagulation is**

**[Question ID = 9222]**

- Prothrombin activator [Option ID = 36882]
- Thrombin [Option ID = 36883]
- Fibrinogen [Option ID = 36884]
- Fibrin stabilizing factor [Option ID = 36885]

Correct Answer :-

- Prothrombin activator [Option ID = 36882]

**17) In different types of tissue transplantations, the rate of graft rejection in decreasing order is**

**[Question ID = 9223]**

- Isograft > xenograft > allograft [Option ID = 36886]
- Allograft > isograft > xenograft [Option ID = 36887]
- Xenograft > autograft > allograft [Option ID = 36888]
- Xenograft > allograft > isograft [Option ID = 36889]

Correct Answer :-

- Xenograft > allograft > isograft [Option ID = 36889]

**18) Reticulo-endothelial cells are present in**

**[Question ID = 9224]**

- Kidney, Spleen & Bone marrow [Option ID = 36890]
- Lung, Spleen & Bone marrow [Option ID = 36891]
- Liver, Spleen & Bone marrow [Option ID = 36892]
- Intestine, Spleen & Bone marrow [Option ID = 36893]

Correct Answer :-

- Liver, Spleen & Bone marrow [Option ID = 36892]

**19) The central foveal region in eye contains**

**[Question ID = 9225]**

- Only rods [Option ID = 36894]
- Both rods and cones [Option ID = 36895]
- Only cones [Option ID = 36896]
- Neither rods nor cones [Option ID = 36897]

Correct Answer :-

- Only cones [Option ID = 36896]

1. 1 osmole of solute dissolved in each g of water [Option ID = 36899]
2. 1 osmole of solute dissolved in each kg of water [Option ID = 36899]
3. 1 osmole of solute dissolved in each L of water [Option ID = 36900]
4. 1 osmole of solute dissolved in each mL of water [Option ID = 36901]

**Correct Answer :-**

- 1 osmole of solute dissolved in each kg of water [Option ID = 36899]

**21) Methionine Synthase is a \_\_\_\_\_ dependent Enzyme**  
[Question ID = 9227]

1. Vitamin B3 [Option ID = 36902]
2. Vitamin B6 [Option ID = 36903]
3. Vitamin B12 [Option ID = 36904]
4. Vitamin B61 [Option ID = 36905]

**Correct Answer :-**

- Vitamin B12 [Option ID = 36904]

**22) Hypertension of unknown etiology is represented by**

[Question ID = 9228]

1. (1) Essential hypertension  
[Option ID = 36906]
2. (2) Toxemia of pregnancy  
[Option ID = 36907]
3. (3) Acute intermittent porphyria  
[Option ID = 36908]
4. (4) 1 and 3  
[Option ID = 36909]

**Correct Answer :-**

- (1) Essential hypertension  
[Option ID = 36906]

**23) Which of the following drugs is a ganglionic blocker?**  
[Question ID = 9229]

1. Prazosin [Option ID = 36910]
2. Ydralazine [Option ID = 36911]
3. Mecamylamine [Option ID = 36912]
4. Nicardipine [Option ID = 36913]

**Correct Answer :-**

- Mecamylamine [Option ID = 36912]

**24) Dramatic decrease in systemic availability of a drug following oral administration is most likely due to**  
[Question ID = 9230]

1. Extreme drug instability at stomach pH [Option ID = 36914]
2. Hepatic "first-pass" effect [Option ID = 36915]
3. Drug metabolized by gut flora [Option ID = 36916]
4. Patient non-compliance [Option ID = 36917]

**Correct Answer :-**

- Hepatic "first-pass" effect [Option ID = 36915]

**25) Type(s) of derivatives associated with phase II metabolic reactions include(s)**

[Question ID = 9231]

1. (1) Glucuronide acid derivatives  
[Option ID = 36918]
2. (2) Sulfation derivative  
[Option ID = 36919]
3. (3) Neither  
[Option ID = 36920]
4. (4) Both 1 and 2  
[Option ID = 36921]

**Correct Answer :-**

26) Which of the following is the characteristic(s) of aspirin overdose?

[Question ID = 9232]

1. (1) Pyloric valve spasm

[Option ID = 36922]

2. (2) Acidity

[Option ID = 36923]

3. (3) Both 1 and 2

[Option ID = 36924]

4. (4) Neither

[Option ID = 36925]

Correct Answer :-

- (3) Both 1 and 2

[Option ID = 36924]

27) Which of the following is effective in the management of mild to moderate pain, when anti-inflammatory action is not necessary?

[Question ID = 9233]

1. Penicillamine [Option ID = 36926]

2. Sulfasalazine [Option ID = 36927]

3. Acetaminophen [Option ID = 36928]

4. Piroxicam [Option ID = 36929]

Correct Answer :-

- Acetaminophen [Option ID = 36928]

28) Risk differs from hazard in that, the risk

[Question ID = 9234]

1. Includes a consideration of the likelihood and severity [Option ID = 36930]

2. Is determined by toxicity studies [Option ID = 36931]

3. Can only be assessed by trained professionals [Option ID = 36932]

4. Is independent of exposure [Option ID = 36933]

Correct Answer :-

- Includes a consideration of the likelihood and severity [Option ID = 36930]

29) Which of the following drugs work by inhibiting the enzyme acetylcholinesterase?

[Question ID = 9235]

1. Neostigmine [Option ID = 36934]

2. Cyclizine [Option ID = 36935]

3. Montelukast [Option ID = 36936]

4. Fentanyl [Option ID = 36937]

Correct Answer :-

- Neostigmine [Option ID = 36934]

30) Which type of epilepsy is treated with Ethosuximide ?

[Question ID = 9236]

1. Tonic-clonic seizures

[Option ID = 36938]

2. Lennox-Gastaut syndrome seizures

[Option ID = 36939]

3. Absence seizures

[Option ID = 36940]

4. All of these

[Option ID = 36941]

Correct Answer :-

- Absence seizures

[Option ID = 36940]

31) Which statement is true for competitive inhibition?

[Question ID = 9237]

**Correct Answer :-**

- In competitive inhibition, the addition of agonist shifts the dose response curve to the right [Option ID = 36942]

**32) The enzyme ultimately responsible for the formation of fibrin monomer is**  
[Question ID = 9238]

1. Plasminogen [Option ID = 36946]
2. Thrombin [Option ID = 36947]
3. Kininogen [Option ID = 36948]
4. Prothrombin [Option ID = 36949]

**Correct Answer :-**

- Thrombin [Option ID = 36947]

**33) Paracrine secretion responsible for inhibiting gastric acid secretion is**  
[Question ID = 9239]

1. Somatostatin [Option ID = 36950]
2. Gastrin [Option ID = 36951]
3. Histamine [Option ID = 36952]
4. Enterogastrone [Option ID = 36953]

**Correct Answer :-**

- Somatostatin [Option ID = 36950]

**34) The percentage of hemoglobin saturated with oxygen will increase, if**

[Question ID = 9240]

1. The arterial  $pCO_2$  is increased  
[Option ID = 36954]
2. The temperature is increased  
[Option ID = 36955]
3. The arterial  $pO_2$  is increased  
[Option ID = 36956]
4. The arterial pH is decreased  
[Option ID = 36957]

**Correct Answer :-**

- The arterial  $pO_2$  is increased  
[Option ID = 36956]

**35) Which of the following statement about spermatogenesis is correct?**  
[Question ID = 9241]

1. Production and release of spermatozoa is cyclic [Option ID = 36958]
2. LH acts directly on sertoli cells to promote cell division [Option ID = 36959]
3. Sertoli cells are required for mitotic and meiotic activity of germ cells [Option ID = 36960]
4. Spermatogenesis requires continuous release of GnRH [Option ID = 36961]

**Correct Answer :-**

- Sertoli cells are required for mitotic and meiotic activity of germ cells [Option ID = 36960]

**36) Plasma levels of calcium can be increased most rapidly by the direct action of parathyroid hormone on the**  
[Question ID = 9242]

1. Kidney [Option ID = 36962]
2. Bones [Option ID = 36963]
3. Thyroid gland [Option ID = 36964]
4. Intestine [Option ID = 36965]

**Correct Answer :-**

- Bones [Option ID = 36963]

**37) Transcortical sensory aphasia is most likely to be associated with a lesion of**  
[Question ID = 9243]

1. The hippocampus [Option ID = 36966]
2. The temporal lobe [Option ID = 36967]
3. The parietal lobe [Option ID = 36968]
4. The limbic system [Option ID = 36969]

**Correct Answer :-**

[Question ID = 9244]

1. Glomerular filtrate [Option ID = 36970]
2. Loop of Henle [Option ID = 36971]
3. Cortical collecting tubule [Option ID = 36972]
4. Distal collecting duct [Option ID = 36973]

Correct Answer :-

- Loop of Henle [Option ID = 36971]

39) The principal steroid secreted by the fetal adrenal cortex is

[Question ID = 9245]

1. Dehydroepiandrosterone [Option ID = 36974]
2. Corticosterone [Option ID = 36975]
3. Cortisol [Option ID = 36976]
4. Pregnenolone [Option ID = 36977]

Correct Answer :-

- Dehydroepiandrosterone [Option ID = 36974]

40) Vaccination is a form of

[Question ID = 9246]

1. (1) Active immunization  
[Option ID = 36978]
2. (2) Passive immunization  
[Option ID = 36979]
3. (3) Both  
[Option ID = 36980]
4. (4) Neither  
[Option ID = 36981]

Correct Answer :-

- (3) Both

[Option ID = 36980]

41) Which of the following diseases is associated with angiogenesis?

[Question ID = 9247]

1. Diabetes [Option ID = 36982]
2. Cancer [Option ID = 36983]
3. Asthma [Option ID = 36984]
4. AIDS [Option ID = 36985]

Correct Answer :-

- Cancer [Option ID = 36983]

42) The F1 particles of mitochondria are

[Question ID = 9248]

1. A type of ribosome that synthesizes mitochondrial proteins [Option ID = 36986]
2. A structural component of the mitochondrial outer membrane [Option ID = 36987]
3. An enzyme complex that synthesizes ATP during respiration [Option ID = 36988]
4. Storage complex for calcium phosphate in the mitochondria [Option ID = 36989]

Correct Answer :-

- An enzyme complex that synthesizes ATP during respiration [Option ID = 36988]

43) Rheumatoid arthritis is an example of

[Question ID = 9249]

1. Type I hypersensitive reaction [Option ID = 36990]
2. Type II hypersensitive reaction [Option ID = 36991]
3. Type III hypersensitive reaction [Option ID = 36992]
4. Type IV hypersensitive reaction [Option ID = 36993]

Correct Answer :-

- Type III hypersensitive reaction [Option ID = 36992]

44) Cystic fibrosis transmembrane conductance regulator (CFTR) is an ion channel specific for

[Question ID = 9250]

- [Option ID = 36995]  
3.  $\text{Cl}^-$   
[Option ID = 36996]  
4.  $\text{H}^+$   
[Option ID = 36997]

Correct Answer :-

- $\text{Cl}^-$   
[Option ID = 36996]

45) Under which phase of bacterial growth bacteria increases in size but do not divide?

[Question ID = 9251]

- Lag [Option ID = 36998]
- Log [Option ID = 36999]
- Stationary phase [Option ID = 37000]
- Death phase [Option ID = 37001]

Correct Answer :-

- Lag [Option ID = 36998]

46) Which of the following features of HIV make it different from other members of this family?

[Question ID = 9252]

- HIV uses reverse transcriptase to convert its RNA genome into cDNA  
[Option ID = 37002]
- HIV infects human cells that are  $\text{CD4}^+$   
[Option ID = 37003]
- HIV is enveloped  
[Option ID = 37004]
- HIV encoded a number of small proteins such as *tat* and *rev*  
[Option ID = 37005]

Correct Answer :-

- HIV uses reverse transcriptase to convert its RNA genome into cDNA  
[Option ID = 37002]

47) Sulfur oxidizing bacteria belongs to

[Question ID = 9253]

- Chemoheterotroph [Option ID = 37006]
- Chemolithoautotroph [Option ID = 37007]
- Chemolithoheterotroph [Option ID = 37008]
- Photolithoautotroph [Option ID = 37009]

Correct Answer :-

- Chemolithoautotroph [Option ID = 37007]

48) RNA as a genetic material is found in, which of the following organism?

[Question ID = 9254]

- Plasmodium  
[Option ID = 37010]
- Staphylococcus aureus*  
[Option ID = 37011]
- Schizosaccharomyces cerevisiae*  
[Option ID = 37012]
- Poliovirus  
[Option ID = 37013]

Correct Answer :-

- Poliovirus  
[Option ID = 37013]

49) Severe Acute Respiratory Syndrome (SARS) is



1. Caused by variant of *Pneumococcus pneumonia*  
[Option ID = 37014]
2. Caused by a variant of common cold virus  
[Option ID = 37015]
3. An acute form of asthma  
[Option ID = 37016]
4. Related to all of these  
[Option ID = 37017]

**Correct Answer :-**

- Caused by a variant of common cold virus  
[Option ID = 37015]

#### 50) Viruses can be cultured in

**[Question ID = 9256]**

1. (1) Chemically defined media as that used for bacteria  
[Option ID = 37018]
2. (2) Living system only  
[Option ID = 37019]
3. (3) Non-living matter also  
[Option ID = 37020]
4. (4) Both 1 and 2  
[Option ID = 37021]

**Correct Answer :-**

- (2) Living system only  
[Option ID = 37019]

#### 51) Which of the following fungi is a rich source of protein?

**[Question ID = 9257]**

1. Mushroom [Option ID = 37022]
2. Aspergillus [Option ID = 37023]
3. Penicillium [Option ID = 37024]
4. Mucor [Option ID = 37025]

**Correct Answer :-**

- Mushroom [Option ID = 37022]

#### 52) Streptomycin is obtained from

**[Question ID = 9258]**

1. Streptomyces capreolus [Option ID = 37026]
2. Streptomyces venezulae [Option ID = 37027]
3. Streptomyces orchidaceus [Option ID = 37028]
4. Streptomyces griseus [Option ID = 37029]

**Correct Answer :-**

- Streptomyces griseus [Option ID = 37029]

#### 53) Which cells secrete Tissue plasminogen Activator (tPA)?

**[Question ID = 9259]**

1. Erythrocytes [Option ID = 37030]
2. Platelets [Option ID = 37031]
3. Endothelial cells [Option ID = 37032]
4. Neutrophils [Option ID = 37033]

**Correct Answer :-**

- Endothelial cells [Option ID = 37032]

#### 54) Which trace element is most useful in wound healing?

**[Question ID = 9260]**

1. Manganese [Option ID = 37034]
2. Magnesium [Option ID = 37035]
3. Selenium [Option ID = 37036]
4. Zinc [Option ID = 37037]

**Correct Answer :-**

- Zinc [Option ID = 37037]

[Question ID = 9261]

1. (1) Missense

[Option ID = 37038]

2. (2) Point mutation

[Option ID = 37039]

3. (3) Both 1 and 2

[Option ID = 37040]

4. (4) Nonsense

[Option ID = 37041]

**Correct Answer :-**

- (3) Both 1 and 2

[Option ID = 37040]

**56) Which of the following enzyme is lactamase inhibitor?**

[Question ID = 9262]

1. Clavulanic acid

[Option ID = 37042]

2. Adipic acid

[Option ID = 37043]

3. Lysergic acid

[Option ID = 37044]

4. Salicyclic acid

[Option ID = 37045]

**Correct Answer :-**

- Clavulanic acid

[Option ID = 37042]

**57) A twelve-year-old boy measures his height against a small tree by hammering a nail at his height. The boy is 4 feet tall and the tree is 8 feet tall. The boy grows into a 6 feet tall man of 22 and comes back to the tree which has been growing by a feet every 2 years. When he comes back at 22 years and later after 42 years, what is the distance of the nail from the ground?**

[Question ID = 9263]

1. 15 & 25 feet [Option ID = 37046]

2. 4 & 4 feet [Option ID = 37047]

3. 19 & 29 feet [Option ID = 37048]

4. 17 & 27 [Option ID = 37049]

**Correct Answer :-**

- 4 & 4 feet [Option ID = 37047]

**58) Recessive inheritance is inferred from**

[Question ID = 9264]

1. (1) Phenotype

[Option ID = 37050]

2. (2) Genotype

[Option ID = 37051]

3. (3) Both (1) and (2)

[Option ID = 37052]

4. (4) Only (1)

[Option ID = 37053]

**Correct Answer :-**

- (4) Only (1)

[Option ID = 37053]

**59) Recombination frequency is a measure of distance between two genes. It indicates**

[Question ID = 9265]

1. Absolute distance in terms of base pairs [Option ID = 37054]

2. Position of the gene from the centromere [Option ID = 37055]

Correct Answer :-

- Relative distance between the two genes [Option ID = 37056]

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**60) A Test cross in a model organism is carried out between**

**[Question ID = 9266]**

1. A heterozygote and recessive homozygote [Option ID = 37058]
2. Two heterozygotes [Option ID = 37059]
3. A heterozygote and dominant homozygote [Option ID = 37060]
4. Offspring and parent both heterozygous [Option ID = 37061]

Correct Answer :-

- A heterozygote and recessive homozygote [Option ID = 37058]

**61) Linkage between loci is**

**[Question ID = 9267]**

1. Confirming Mendel's laws of inheritance [Option ID = 37062]
2. A deviation from Mendel's Laws of inheritance [Option ID = 37063]
3. Reflected in the Law of independent assortment [Option ID = 37064]
4. Because of recombination [Option ID = 37065]

Correct Answer :-

- A deviation from Mendel's Laws of inheritance [Option ID = 37063]

**62) For a mutation to be stably inherited**

**[Question ID = 9268]**

1. It should occur in all somatic cells [Option ID = 37066]
2. It should occur on both the homologues in a diploid [Option ID = 37067]
3. It should occur in gametes [Option ID = 37068]
4. It should be random [Option ID = 37069]

Correct Answer :-

- It should occur in gametes [Option ID = 37068]

**63) Which of the following statements is untrue?**

**[Question ID = 9269]**

1. Desolvation is an energy expensive process that involves the removal of water from polar functional groups prior to a drug binding to its binding site [Option ID = 37070]
2. Water molecules surrounding a hydrophobic region of a drug form an ordered layer of molecules with low entropy [Option ID = 37071]
3. Interaction between the non polar regions of a drug and the non polar regions of a target require the removal of an ordered water coat and represents a gain in binding energy due to increased entropy [Option ID = 37072]
4. An increase in entropy results in a greater positive value of  $\Delta G$  and a greater chance of binding [Option ID = 37073]

Correct Answer :-

- An increase in entropy results in a greater positive value of  $\Delta G$  and a greater chance of binding [Option ID = 37073]

**64) Which secondary messenger is generated as a result of the action of nitrous oxide?**

**[Question ID = 9270]**

1. GTP [Option ID = 37074]
2. Cyclic GMP [Option ID = 37075]
3. ATP [Option ID = 37076]
4. Cyclic AMP [Option ID = 37077]

Correct Answer :-

- Cyclic GMP [Option ID = 37075]

**65) Which of the following is not a G-protein coupled receptor?**

**[Question ID = 9271]**

1. The muscarinic receptor [Option ID = 37078]
2. The glycine receptor [Option ID = 37079]
3. The adrenergic receptor [Option ID = 37080]
4. The glutamate receptor [Option ID = 37081]

Correct Answer :-

- The glycine receptor [Option ID = 37079]

**66) Which of the following is not a typical messenger for a tyrosine kinase linked receptor?**

**[Question ID = 9272]**

1. Insulin [Option ID = 37082]
2. Acetylcholine [Option ID = 37083]
3. Growth factors [Option ID = 37084]
4. Cytokines [Option ID = 37085]

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67) Which of the following statements best explains the action of lithium salts in treating manic depressive illness?

[Question ID = 9273]

1. They inhibit adenylatecyclase [Option ID = 37086]
2. They inhibit phospholipase C [Option ID = 37087]
3. They inhibit protein kinase C [Option ID = 37088]
4. They inhibit a glycogen synthase kinase [Option ID = 37089]

Correct Answer :-

- They inhibit a glycogen synthase kinase [Option ID = 37089]

68) Which of the following terms best describes a drug that binds to an active site and inhibits the enzyme, and where inhibition decreases when substrate concentration is increased?

[Question ID = 9274]

1. Allosteric inhibitor  
[Option ID = 37090]
2. Irreversible inhibitor  
[Option ID = 37091]
3. Reversible inhibitor  
[Option ID = 37092]
4. All of these  
[Option ID = 37093]

Correct Answer :-

- Reversible inhibitor  
[Option ID = 37092]

69) Which of the following is not used as a measure of enzyme activity?

[Question ID = 9275]

1.  $EC_{50}$   
[Option ID = 37094]
2.  $K_i$   
[Option ID = 37095]
3.  $IC_{50}$   
[Option ID = 37096]
4. Log P  
[Option ID = 37097]

Correct Answer :-

- Log P  
[Option ID = 37097]

70) Which of the following terms applies to the maximum biological effect resulting from a drug binding to its target?

[Question ID = 9276]

1. Affinity [Option ID = 37098]
2. Efficacy [Option ID = 37099]
3. Potency [Option ID = 37100]
4. Stability [Option ID = 37101]

Correct Answer :-

- Efficacy [Option ID = 37099]

71) Suckling stimulus by the infant during nursing maintains lactation by

[Question ID = 9277]

1. Increasing the secretion of oxytocin [Option ID = 37102]
2. Increasing the secretion of prolactin [Option ID = 37103]
3. Increasing the secretion of LH and FSH [Option ID = 37104]
4. Increasing the secretion of oxytocin and prolactin [Option ID = 37105]

Correct Answer :-

- Increasing the secretion of oxytocin and prolactin [Option ID = 37105]

72) Which one of the following is not a heme protein?

[Question ID = 9278]

Correct Answer :-

- Protein Kinase C [Option ID = 37109]

73) A shift in the oxygen Haemoglobin Dissociation curve to the right occurs in  
[Question ID = 9279]

- Hypothermia [Option ID = 37110]
- Carboxyhaemoglobin [Option ID = 37111]
- Fetal hemoglobin-S [Option ID = 37112]
- An increase in the 2, 3-Bisphosphoglycerate (2, 3-BPG) [Option ID = 37113]

Correct Answer :-

- An increase in the 2, 3-Bisphosphoglycerate (2, 3-BPG) [Option ID = 37113]

74) The concentration of agar to obtain semi solid media is

[Question ID = 9280]

- 1.5-20%  
[Option ID = 37114]
- 0.5% or less  
[Option ID = 37115]
- >10%  
[Option ID = 37116]
- >10% but <20%  
[Option ID = 37117]

Correct Answer :-

- 0.5% or less  
[Option ID = 37115]

75) Bleomycin is a drug for the treatment of  
[Question ID = 9281]

- Cancer [Option ID = 37118]
- Atherosclerosis [Option ID = 37119]
- Hypertension [Option ID = 37120]
- Hyperlipidemia [Option ID = 37121]

Correct Answer :-

- Cancer [Option ID = 37118]

76) Emblica officinalis extract is used widely as an  
[Question ID = 9282]

- Antihistamine [Option ID = 37122]
- Antioxidant [Option ID = 37123]
- Antipyretic [Option ID = 37124]
- Analgesic [Option ID = 37125]

Correct Answer :-

- Antioxidant [Option ID = 37123]

77) The vitamin that contains cobalt is  
[Question ID = 9283]

- Vitamin B12 [Option ID = 37126]
- Vitamin C [Option ID = 37127]
- Vitamin E [Option ID = 37128]
- Vitamin k [Option ID = 37129]

Correct Answer :-

- Vitamin B12 [Option ID = 37126]

78) The first virus shown to cause disease was  
[Question ID = 9284]

- Polio [Option ID = 37130]
- Hepatitis [Option ID = 37131]
- Tobacco mosaic virus [Option ID = 37132]
- Potato blight [Option ID = 37133]

Correct Answer :-

[Question ID = 9285]

1. Periodic transfer to fresh media

[Option ID = 37134]

2. Preservation by overlaying cultures with mineral oil

[Option ID = 37135]

3. Preservation by lyophilization

[Option ID = 37136]

4. All of these

[Option ID = 37137]

Correct Answer :-

- All of these

[Option ID = 37137]

80) Name of the mosquito responsible for transmitting chikungunya fever is

[Question ID = 9286]

1. Culex mosquito [Option ID = 37138]

2. Anopheles mosquito [Option ID = 37139]

3. Aedes mosquito [Option ID = 37140]

4. Uranotaenia mosquito [Option ID = 37141]

Correct Answer :-

- Aedes mosquito [Option ID = 37140]

81) The half life period of a radioisotope is 2 hours. After 6 hours, the fraction of the initial quantity of the isotope left behind will be

[Question ID = 9287]

1.  $1/6$  [Option ID = 37142]

2.  $1/3$  [Option ID = 37143]

3.  $1/8$  [Option ID = 37144]

4.  $1/4$  [Option ID = 37145]

Correct Answer :-

- $1/8$  [Option ID = 37144]

82)  $\text{PCl}_3$  reacts with water to yield

[Question ID = 9288]

1.  $\text{H}_3\text{PO}_4$  [Option ID = 37146]

2.  $\text{H}_3\text{PO}_3$  [Option ID = 37147]

3.  $\text{HOCl}$  [Option ID = 37148]

4.  $\text{POCl}_3$  [Option ID = 37149]

Correct Answer :-

- $\text{H}_3\text{PO}_3$  [Option ID = 37147]

83) The bond angle  $120^\circ$  for  $\text{BF}_3$  and  $109.3^\circ$  for  $\text{CH}_4$  accounts for

[Question ID = 9290]

1.  $\text{sp}^2$ , tetrahedral and  $\text{sp}^3$ , trigonal

[Option ID = 37154]

2.  $\text{sp}^2$ , trigonal and  $\text{sp}^3$ , trigonal

[Option ID = 37155]

3.  $\text{sp}^2$ , tetrahedral and  $\text{sp}^3$ , tetrahedral

[Option ID = 37156]

4.  $\text{sp}^2$ , trigonal and  $\text{sp}^3$ , tetrahedral

[Option ID = 37157]

Correct Answer :-

- $\text{sp}^2$ , trigonal and  $\text{sp}^3$ , tetrahedral

[Option ID = 37157]

84) Ultraviolet and visible radiation interacts with matter causing electronic transitions (promotion of electrons from the ground state to a high energy state). Which of the following transition falls in UV-Vis range?

[Question ID = 9291]

Correct Answer :-

- $\pi$ - $\pi^*$  (pi to pi star transition) and  $n$ - $\pi^*$  (n to pi star transition) [Option ID = 37158]

85) Which of the following statements is not true?

[Question ID = 9293]

1. Pyrrole contains 6 $\pi$  electrons [Option ID = 37166]
2. Pyrrole is an aromatic molecule [Option ID = 37167]
3. Pyrrole is a planar molecule [Option ID = 37168]
4. Pyrrole contains 6 membered N containing heterocyclic ring [Option ID = 37169]

Correct Answer :-

- Pyrrole contains 6 membered N containing heterocyclic ring [Option ID = 37169]

86) Fischer -Tropsch process is

[Question ID = 9294]

1. Decomposition of an alkane in the absence of air [Option ID = 37170]
2. Process to convert kerosene into gasoline [Option ID = 37171]
3. A process to obtain synthetic fuel [Option ID = 37172]
4. Conversion of straight chain alkanes into branched-chain alkanes and aromatic hydrocarbons [Option ID = 37173]

Correct Answer :-

- A process to obtain synthetic fuel [Option ID = 37172]

87) Which one of the following product is not obtained from primary amine?

[Question ID = 9295]

1. Imine [Option ID = 37174]
2. Enamine [Option ID = 37175]
3. Hydrazone [Option ID = 37176]
4. Oxime [Option ID = 37177]

Correct Answer :-

- Enamine [Option ID = 37175]

88) Which one of the following is correct statement?

[Question ID = 9296]

1. The electronegative character decreases in the same group moving down the periodic table  
[Option ID = 37178]
2. The basic character decreases moving from left to right in periodic table  
[Option ID = 37179]
3. The ionization potential increases moving from left to right in periodic table  
[Option ID = 37180]
4. All of these  
[Option ID = 37181]

Correct Answer :-

- All of these  
[Option ID = 37181]

89) Which one of the following rearrangement involves the conversion of oxime to amine?

[Question ID = 9297]

1. Beckmann [Option ID = 37182]
2. Curtius [Option ID = 37183]
3. Hofmann [Option ID = 37184]
4. Wagner-Meerwein [Option ID = 37185]

Correct Answer :-

- Beckmann [Option ID = 37182]

90) The product of the reaction of 1, 3- butadiene and ethylene is

[Question ID = 9298]

1. Hexane [Option ID = 37186]
2. Cyclohexane [Option ID = 37187]
3. Hexene [Option ID = 37188]
4. Cyclohexene [Option ID = 37189]

Correct Answer :-

[Question ID = 9299]

1. Oxidation [Option ID = 37190]
2. Reduction [Option ID = 37191]
3. Condensation [Option ID = 37192]
4. Substitution [Option ID = 37193]

Correct Answer :-

- Reduction [Option ID = 37191]

92) Which of the following violates the octet rule?

[Question ID = 9300]

1.  $\text{PCl}_3$   
[Option ID = 37194]
2.  $\text{CBr}_4$   
[Option ID = 37195]
3.  $\text{OF}_2$   
[Option ID = 37196]
4.  $\text{AsF}_5$   
[Option ID = 37197]

Correct Answer :-

- $\text{AsF}_5$

[Option ID = 37197]

93) In which one of the following species does the transition metal ion have  $d^3$  electronic configuration?

[Question ID = 9301]

1.  $[\text{Cr}(\text{NH}_3)_6]^{3+}$   
[Option ID = 37198]
2.  $[\text{Co}(\text{OH}_2)_6]^{2+}$   
[Option ID = 37199]
3.  $[\text{CoF}_6]^{3-}$   
[Option ID = 37200]
4.  $[\text{Fe}(\text{CN})_6]^{3-}$   
[Option ID = 37201]

Correct Answer :-

- $[\text{Cr}(\text{NH}_3)_6]^{3+}$

[Option ID = 37198]

94) Hydrolysis of a fat molecule would yield

[Question ID = 9302]

1. Water and an alkene [Option ID = 37202]
2. Ethanol and propionic acid [Option ID = 37203]
3. Glycerol and soap [Option ID = 37204]
4. A trimer of glycerol with fatty acid [Option ID = 37205]

Correct Answer :-

- Glycerol and soap [Option ID = 37204]

95) In the Hofmann preparation of primary amine, the starting compound is

[Question ID = 9304]

1. Carboxylic acid [Option ID = 37210]
2. Ketone [Option ID = 37211]
3. Amide [Option ID = 37212]
4. Halide [Option ID = 37213]

Correct Answer :-

- Amide [Option ID = 37212]

96) Which of the following IS TRUE about sucrose?

[Question ID = 9305]

1. It is not a reducing sugar [Option ID = 37214]
2. It reduces Fehling's solution [Option ID = 37215]
3. It forms an oxime [Option ID = 37216]



97) The metal present in Wilkinson's catalyst is

[Question ID = 9306]

1. Platinum [Option ID = 37218]
2. Iron [Option ID = 37219]
3. Copper [Option ID = 37220]
4. Rhodium [Option ID = 37221]

Correct Answer :-

- Rhodium [Option ID = 37221]

98) Complete the following reaction.  ${}_{11}\text{Na}^{23} + {}_1\text{H}^1 \rightarrow ? + {}_0\text{n}^1$

[Question ID = 9308]

1.  ${}_{12}\text{Mn}^{23}$   
[Option ID = 37226]
2.  ${}_{12}\text{Mg}^{23}$   
[Option ID = 37227]
3.  ${}_{12}\text{C}^{23}$   
[Option ID = 37228]
4. None of these  
[Option ID = 37229]

Correct Answer :-

- ${}_{12}\text{Mg}^{23}$   
[Option ID = 37227]

99) Name the following reaction



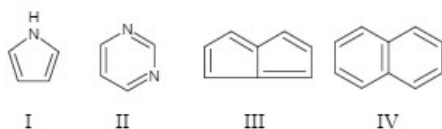
[Question ID = 9309]

1. Perkin Reaction  
[Option ID = 37230]
2. Aldol condensation  
[Option ID = 37231]
3. Dieckmann condensation  
[Option ID = 37232]
4. None of these  
[Option ID = 37233]

Correct Answer :-

- Dieckmann condensation  
[Option ID = 37232]

100) Which of the following IS NOT aromatic?



[Question ID = 9310]

1. I [Option ID = 37234]
2. II [Option ID = 37235]
3. III [Option ID = 37236]
4. IV [Option ID = 37237]

Correct Answer :-

- III [Option ID = 37236]

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