

# DU MSc PhD Comb degree in Bio Sci N MSc in Bio Sci

Topic:- DU\_J19\_MSC\_BIOSCI

## 1) The dilution plate count [Question ID = 1080]

1. Uses the ability to produce progeny as indicator of viability [Option ID = 4319]
2. all of these [Option ID = 4320]
3. Can be used only during the log phase of the growth curve since it is a viable count [Option ID = 4317]
4. Yields valid results only in those phases of the growth curve in which cell are not dividing [Option ID = 4318]

### Correct Answer :-

- Can be used only during the log phase of the growth curve since it is a viable count [Option ID = 4317]

## 2) Which of the following is best used for long term storage of microbial samples

[Question ID = 1083]

1. lyophilization of samples [Option ID = 4330]
2. storage in a refrigerator in an agar plate [Option ID = 4331]
3. storage on a petriplate at room temperature [Option ID = 4332]
4. Storage in a freezer at -10degC [Option ID = 4329]

### Correct Answer :-

- lyophilization of samples [Option ID = 4330]

## 3) Ubiquitin is a [Question ID = 1056]

1. Protease [Option ID = 4222]
2. Component of the electron transport system [Option ID = 4223]
3. Protein that tags another protein for proteolysis [Option ID = 4224]
4. Protein kinase [Option ID = 4221]

### Correct Answer :-

- Protein that tags another protein for proteolysis [Option ID = 4224]

## 4) Retinoblastoma protein phosphorylation leads to [Question ID = 1069]

1. G1 arrest [Option ID = 4274]
2. G1 to S phase transition [Option ID = 4275]
3. cell apoptosis [Option ID = 4273]
4. binding with E2F [Option ID = 4276]

### Correct Answer :-

- G1 to S phase transition [Option ID = 4275]

## 5) The chief fuel for energy production in human brain during starvation is: [Question ID = 1078]

1. Ketone bodies [Option ID = 4311]
2. Amino acids [Option ID = 4312]
3. Cholesterol [Option ID = 4309]
4. Fatty acids [Option ID = 4310]

**Correct Answer :-**

- Ketone bodies [Option ID = 4311]

**6) The action potential is first formed in the [Question ID = 1071]**

1. first few nodes of Ranvier on the axon. [Option ID = 4284]
2. Axon hillock [Option ID = 4282]
3. Dendrites [Option ID = 4283]
4. Cell body [Option ID = 4281]

**Correct Answer :-**

- Axon hillock [Option ID = 4282]

**7) What are the three atoms present in borazine [Question ID = 1029]**

1. N, C, H [Option ID = 4115]
2. B, N, H [Option ID = 4113]
3. B, C, H [Option ID = 4116]
4. B, N, C [Option ID = 4114]

**Correct Answer :-**

- B, N, H [Option ID = 4113]

**8) The genetic material of Tobacco Mosaic Virus is a [Question ID = 1101]**

1. ds RNA [Option ID = 4403]
2. ssRNA [Option ID = 4402]
3. dsDNA [Option ID = 4401]
4. ss DNA [Option ID = 4404]

**Correct Answer :-**

- ssRNA [Option ID = 4402]

**9) Cumene is used to manufacture [Question ID = 1042]**

1. Benzene [Option ID = 4165]
2. Phenol [Option ID = 4167]
3. Toluene [Option ID = 4166]
4. 1,2-dimethylbenzene [Option ID = 4168]

**Correct Answer :-**

- Phenol [Option ID = 4167]

**10) 1,3-butadiene contains x number of pi electrons where x is [Question ID = 1032]**

1. 6 [Option ID = 4127]
2. 2 [Option ID = 4125]
3. 8 [Option ID = 4128]
4. 4 [Option ID = 4126]

**Correct Answer :-**

- 4 [Option ID = 4126]

**11) The antibiotic nonactin contains the following heterocyclic ring [Question ID = 1045]**

1. Furan [Option ID = 4178]
2. Pyrrole [Option ID = 4179]
3. Imidazole [Option ID = 4180]
4. Thiophene [Option ID = 4177]

**Correct Answer :-**

- Furan [Option ID = 4178]

**12) Replicative senescence is due to [Question ID = 1067]**

1. degradation of telomerase [Option ID = 4266]
2. stabilization of telomerase [Option ID = 4265]
3. Telomere shortening [Option ID = 4267]
4. Telomere shortening with telomerase activation [Option ID = 4268]

**Correct Answer :-**

- Telomere shortening [Option ID = 4267]

**13) The method of successful treatment of botulism prior to appearance of botulism symptom involve administration of [Question ID = 1086]**

1. Antipyretic [Option ID = 4344]
2. Analgesic [Option ID = 4342]
3. Antitoxin [Option ID = 4343]
4. Antibiotic [Option ID = 4341]

**Correct Answer :-**

- Antitoxin [Option ID = 4343]

**14) The metal salt present in Ziegler natta catalyst is [Question ID = 1021]**

1.  $\text{SnCl}_2$  [Option ID = 4083]
2.  $\text{TiCl}_3$  [Option ID = 4081]
3.  $\text{AlCl}_3$  [Option ID = 4084]
4.  $\text{NiCl}_4$  [Option ID = 4082]

**Correct Answer :-**

- $\text{TiCl}_3$  [Option ID = 4081]

**15) The most basic ion among the following is [Question ID = 1020]**

1. Hydroxide [Option ID = 4078]
2. Nitrate [Option ID = 4080]
3. Ethoxide [Option ID = 4077]
4. Acetate [Option ID = 4079]

**Correct Answer :-**

- Ethoxide [Option ID = 4077]

**16) Which part of cell acts as a Capacitor? [Question ID = 1077]**

1. Golgi body [Option ID = 4308]
2. Nucleus [Option ID = 4307]
3. Lipid bilayer of cell membrane [Option ID = 4305]
4. Proteins of cell membrane [Option ID = 4306]

**Correct Answer :-**

- Lipid bilayer of cell membrane [Option ID = 4305]

**17) Final common pathway for oxidation of carbohydrates, lipids and proteins is [Question ID = 1075]**

1. Krebs cycle [Option ID = 4299]
2. Glycolysis [Option ID = 4297]
3. Pentose phosphate pathway [Option ID = 4298]
4. Electron transport chain [Option ID = 4300]

**Correct Answer :-**

- Krebs cycle [Option ID = 4299]

**18)  $(x/2)-1 = (x/3)+4$ ;  $x=?$  [Question ID = 1100]**

1. 15 [Option ID = 4397]
2. 45 [Option ID = 4399]
3. 30 [Option ID = 4398]
4. 60 [Option ID = 4400]

**Correct Answer :-**

- 30 [Option ID = 4398]

**19) The formation of isobutylene from tert-butyl bromide is an example of [Question ID = 1035]**

1. elimination reaction [Option ID = 4140]
2. nucleophilic substitution reaction [Option ID = 4137]
3. addition reaction [Option ID = 4138]
4. reduction reaction [Option ID = 4139]

**Correct Answer :-**

- elimination reaction [Option ID = 4140]

**20) In Gymnosperms, the female gametophyte develops from the [Question ID = 1105]**

1. Nucellus cells [Option ID = 4419]
2. Haploid megaspore mother cell [Option ID = 4420]
3. Haploid megaspore [Option ID = 4417]
4. Diploid megaspore [Option ID = 4418]

**Correct Answer :-**

- Haploid megaspore [Option ID = 4417]

**21) The fruiting bodies in *Agaricus* and *Morchella* are [Question ID = 1102]**

1. Basidiocarps [Option ID = 4407]
2. Basidiocarps and Ascocarps, respectively [Option ID = 4406]
3. Ascocarps [Option ID = 4405]
4. Ascocarps and Basidiocarps, respectively [Option ID = 4408]

**Correct Answer :-**

- Basidiocarps and Ascocarps, respectively [Option ID = 4406]

**22) The word opposite in meaning to the word zeal is [Question ID = 1094]**

1. enthusiasm [Option ID = 4374]
2. courage [Option ID = 4375]
3. ill [Option ID = 4376]
4. lethargy [Option ID = 4373]

**Correct Answer :-**

- lethargy [Option ID = 4373]

**23) The word opposite in meaning to the word stoic is [Question ID = 1095]**

1. quarrelsome [Option ID = 4380]
2. stolid [Option ID = 4378]
3. emotional [Option ID = 4377]
4. unpleasant [Option ID = 4379]

**Correct Answer :-**

- emotional [Option ID = 4377]

**24)  $\text{LiAlH}_4$  reacts with carboxylic acids to yield [Question ID = 1040]**

1. esters [Option ID = 4157]
2. Alcohol [Option ID = 4159]
3. Alkenes [Option ID = 4160]
4. Alkanes [Option ID = 4158]

**Correct Answer :-**

- Alcohol [Option ID = 4159]

**25) Griesofulvin is an effective [Question ID = 1048]**

1. Antipyretic [Option ID = 4190]
2. Antifungal agent [Option ID = 4191]
3. Analgesic [Option ID = 4189]
4. Antibiotic [Option ID = 4192]

**Correct Answer :-**

- Antifungal agent [Option ID = 4191]

**26) The geometry of  $[\text{PtCl}_4]^{2-}$  complex is [Question ID = 1026]**

1. square pyramidal [Option ID = 4104]
2. square planar [Option ID = 4102]
3. octahedral [Option ID = 4103]
4. tetrahedral [Option ID = 4101]

**Correct Answer :-**

- square planar [Option ID = 4102]

**27) The sequence of the bacteriophage  $\phi\text{X174}$  was delineated by [Question ID = 1022]**

1. James Watson and Francis Crick [Option ID = 4088]
2. James Watson [Option ID = 4085]
3. Frederick Sanger [Option ID = 4087]
4. Francis Crick [Option ID = 4086]

**Correct Answer :-**

- Frederick Sanger [Option ID = 4087]

**28) The molecule discovered by Alexander Fleming in 1928 was [Question ID = 1025]**

1. Aspirin [Option ID = 4100]
2. Benzene [Option ID = 4098]
3. Penicillin [Option ID = 4099]
4. Benzoic Acid [Option ID = 4097]

**Correct Answer :-**

- Penicillin [Option ID = 4099]

**29) In which phase of cell cycle is DNA replicated? [Question ID = 1057]**

1. G<sub>2</sub> phase [Option ID = 4227]
2. M phase [Option ID = 4228]
3. G<sub>1</sub> phase [Option ID = 4225]
4. S phase [Option ID = 4226]

**Correct Answer :-**

- S phase [Option ID = 4226]

**30) Migration of cancerous cells from the site of origin to other parts of the body forming secondary tumor is called [Question ID = 1063]**

1. metastasis [Option ID = 4250]
2. mitosis [Option ID = 4252]
3. diapedesis [Option ID = 4249]
4. proliferation [Option ID = 4251]

**Correct Answer :-**

- metastasis [Option ID = 4250]

**31) In bryophytes, meiosis occurs in the [Question ID = 1104]**

1. sporogenous tissue to produce spores [Option ID = 4416]
2. gametangia to produce sperm and egg [Option ID = 4415]
3. gametophyte to produce gametangia [Option ID = 4413]
4. spores to produce protonema [Option ID = 4414]

**Correct Answer :-**

- sporogenous tissue to produce spores [Option ID = 4416]

**32) Large parasite such as helminthes may be killed extracellularly by the action of [Question ID = 1087]**

1. Monocytes [Option ID = 4346]
2. Neutrophils [Option ID = 4348]
3. Eosinophils [Option ID = 4347]
4. Basophils [Option ID = 4345]

**Correct Answer :-**

**33) Valeric acid the following number of carbon atoms [Question ID = 1034]**

1. 6 [Option ID = 4135]
2. 7 [Option ID = 4136]
3. 5 [Option ID = 4134]
4. 4 [Option ID = 4133]

**Correct Answer :-**

- 5 [Option ID = 4134]

**34) Aniline reacts with aqueous bromine to yield [Question ID = 1044]**

1. 2,4,6-Tribromoaniline [Option ID = 4175]
2. Bromobenzene [Option ID = 4173]
3. Phenol [Option ID = 4176]
4. Benzoic acid [Option ID = 4174]

**Correct Answer :-**

- 2,4,6-Tribromoaniline [Option ID = 4175]

**35) Rhombic sulphur consists of [Question ID = 1030]**

1. S6 rings [Option ID = 4117]
2. S8 rings [Option ID = 4119]
3. S7 rings [Option ID = 4118]
4. S10 rings [Option ID = 4120]

**Correct Answer :-**

- S8 rings [Option ID = 4119]

**36) Antonie Philips van Leeuwenhoek [Question ID = 1081]**

1. credited with discovering microorganism [Option ID = 4321]
2. All of these [Option ID = 4324]
3. discovered the process of attenuation in microorganisms which he scraped from his teeth [Option ID = 4323]
4. Recognized that animalcules could be present like seeds in the air [Option ID = 4322]

**Correct Answer :-**

**37) ALU elements are**

**[Question ID = 1108]**

1. Jumping gene [Option ID = 4430]
2. SINEs [Option ID = 4431]
3. Transposons [Option ID = 4429]
4. LINEs [Option ID = 4432]

**Correct Answer :-**

- SINEs [Option ID = 4431]

**38) What should be added to  $3x^2+4$  to get  $9x^2-7$  [Question ID = 1098]**

1.  $12x^2+11$  [Option ID = 4392]
2.  $12x^2-11$  [Option ID = 4391]
3.  $6x^2-11$  [Option ID = 4389]
4.  $6x^2+11$  [Option ID = 4390]

**Correct Answer :-**

- $6x^2-11$  [Option ID = 4389]

**39) Arrange the running pattern of plasmid in agrose gel in presence of electric field [Question ID = 1061]**

1. Supercoiled plasmid will not move toward cathode [Option ID = 4244]
2. Supercoiled plasmid will lag behind toward anode [Option ID = 4241]
3. Supercoiled plasmid will move faster toward anode [Option ID = 4242]
4. Supercoiled plasmid will move faster toward cathode [Option ID = 4243]

**Correct Answer :-**

- Supercoiled plasmid will move faster toward anode [Option ID = 4242]

**40) The reason why there is a sudden shift in the electrical potential of the neuron (from about -70mv to about +50mv) during an action potential is largely due to the sudden influx of \_\_\_\_\_ ions. [Question ID = 1070]**

1. Chloride [Option ID = 4280]
2. Calcium [Option ID = 4279]
3. Potassium [Option ID = 4277]
4. Sodium [Option ID = 4278]

**Correct Answer :-**

- Sodium [Option ID = 4278]

**41) The reaction of pyrrole with chloroform and KOH yields [Question ID = 1037]**

1. 2-Phenyl pyrrole [Option ID = 4145]
2. 2-Hydroxy pyrrole [Option ID = 4146]
3. 2-Pyrrolecarboxaldehyde [Option ID = 4147]
4. None of these [Option ID = 4148]

**Correct Answer :-**

- 2-Pyrrolecarboxaldehyde [Option ID = 4147]

**42) The reaction of benzoyl chloride with ammonia yields [Question ID = 1036]**

1. Benzamide [Option ID = 4143]
2. Benzophenone [Option ID = 4144]
3. Aniline [Option ID = 4142]
4. Benzoic acid [Option ID = 4141]

**Correct Answer :-**

- Benzamide [Option ID = 4143]

**43) The reaction of phenyl magnesium bromide with ethylene oxide yields [Question ID = 1046]**

1. 2-phenylethanol [Option ID = 4181]
2. Phenol [Option ID = 4182]



3. Phenylacetic acid [Option ID = 4184]
4. 2 molecules of Benzoic acid [Option ID = 4183]

**Correct Answer :-**

- 2-phenylethanol [Option ID = 4181]

**44) Wilkinson's catalyst contains the transition metal [Question ID = 1031]**

1. Rh [Option ID = 4124]
2. Fe [Option ID = 4123]
3. Cr [Option ID = 4121]
4. Mn [Option ID = 4122]

**Correct Answer :-**

- Rh [Option ID = 4124]

**45) The total number of codons in human beings is [Question ID = 1024]**

1. 66 [Option ID = 4096]
2. 65 [Option ID = 4095]
3. 64 [Option ID = 4094]
4. 63 [Option ID = 4093]

**Correct Answer :-**

- 64 [Option ID = 4094]

**46) The best nucleophile among the following is [Question ID = 1015]**

1. Br- [Option ID = 4058]
2. Cl- [Option ID = 4059]
3. OH- [Option ID = 4060]
4. I- [Option ID = 4057]

**Correct Answer :-**

- I- [Option ID = 4057]

**47) The term \_\_\_\_\_ refers to the constant state of contraction of a certain number of fibers within a muscle. [Question ID = 1072]**

1. Atrophy [Option ID = 4287]
2. Tone [Option ID = 4288]
3. Hypertrophy [Option ID = 4286]
4. Summation [Option ID = 4285]

**Correct Answer :-**

- Summation [Option ID = 4285]

**48) The term "brain of gut" refers to : [Question ID = 1074]**

1. Migratory complex [Option ID = 4296]
2. Enteric nerve plexes [Option ID = 4293]
3. Autonomic nervous system [Option ID = 4295]
4. Cells of cajal [Option ID = 4294]

**Correct Answer :-**

- Enteric nerve plexes [Option ID = 4293]

**49) The sum of the coefficients in the monomials  $3a^2b$  and  $-2ab^2$  is [Question ID = 1097]**

1. -6 [Option ID = 4388]
2. -1 [Option ID = 4386]
3. 5 [Option ID = 4385]
4. 1 [Option ID = 4387]

**Correct Answer :-**

- 1 [Option ID = 4387]

**50) Multiple alleles of a gene control inheritance of [Question ID = 1109]**

1. blood groups. [Option ID = 4436]
2. colour blindness [Option ID = 4434]
3. skin color [Option ID = 4433]
4. sickle cell anaemia [Option ID = 4435]

**Correct Answer :-**

- blood groups. [Option ID = 4436]

**51) The meaning of the word dither is [Question ID = 1093]**

1. State [Option ID = 4370]
2. Strength [Option ID = 4372]
3. Vacillate [Option ID = 4369]
4. Foretell [Option ID = 4371]

**Correct Answer :-**

- Vacillate [Option ID = 4369]

**52) The meaning of the word cumbersome is [Question ID = 1091]**

1. Light [Option ID = 4362]
2. Burdensome [Option ID = 4361]
3. Clear [Option ID = 4363]
4. Sorrowful [Option ID = 4364]

**Correct Answer :-**

- Burdensome [Option ID = 4361]

**53) The meaning of the word callous is [Question ID = 1089]**

1. None of these [Option ID = 4356]
2. rude [Option ID = 4355]
3. Brave [Option ID = 4353]
4. heartless [Option ID = 4354]

**Correct Answer :-**

- heartless [Option ID = 4354]

**54) The meaning of the word ephemeral is [Question ID = 1090]**

1. Transparent [Option ID = 4359]
2. Opaque [Option ID = 4360]
3. Gossamer like [Option ID = 4357]

4. Transient [Option ID = 4358]

**Correct Answer :-**

- Transient [Option ID = 4358]

**55) The meaning of the word renegade is [Question ID = 1092]**

1. Coward [Option ID = 4366]
2. Soldier [Option ID = 4368]
3. Traitor [Option ID = 4367]
4. Brave [Option ID = 4365]

**Correct Answer :-**

- Traitor [Option ID = 4367]

**56) RNA primer is removed from the Okazaki fragment by [Question ID = 1055]**

1. DNA polymerase I [Option ID = 4217]
2. DNA polymerase III [Option ID = 4219]
3. DNA polymerase II [Option ID = 4218]
4. RNA polymerase [Option ID = 4220]

**Correct Answer :-**

**57) The final acceptor of electrons during oxidative phosphorylation is: [Question ID = 1079]**

1. O<sub>2</sub> [Option ID = 4314]
2. H<sub>2</sub>O [Option ID = 4313]
3. CO<sub>2</sub> [Option ID = 4315]
4. NADH [Option ID = 4316]

**Correct Answer :-**

- O<sub>2</sub> [Option ID = 4314]

**58) -C=O shows a lambda max in the UV region in the range of [Question ID = 1043]**

1. 150-180 nm [Option ID = 4170]
2. 100-130 nm [Option ID = 4169]
3. 400-430 nm [Option ID = 4172]
4. 270-300 nm [Option ID = 4171]

**Correct Answer :-**

- 270-300 nm [Option ID = 4171]

**59) Recombinant frequency of 1% is equivalent to [Question ID = 1107]**

1. 5 m.u [Option ID = 4428]
2. 10 m.u [Option ID = 4425]
3. 20 m.u [Option ID = 4426]
4. 1 m.u [Option ID = 4427]

**Correct Answer :-**

- 1 m.u [Option ID = 4427]

**60) The redox potential of molecular oxygen is [Question ID = 1023]**

1. zero [Option ID = 4091]
2. Positive [Option ID = 4089]
3. Fractional [Option ID = 4092]
4. Negative [Option ID = 4090]

**Correct Answer :-**

- Positive [Option ID = 4089]

**61) 2-Picoline is also known as [Question ID = 1038]**

1. 2-Hydroxypyridine [Option ID = 4150]
2. None of these [Option ID = 4152]
3. 2-Methyl Pyridine [Option ID = 4149]
4. 2-carboxy pyridine [Option ID = 4151]

**Correct Answer :-**

- 2-Methyl Pyridine [Option ID = 4149]

**62) Sodio-ethylacetoacetate reacts with alkyl chloride to yield [Question ID = 1039]**

1. acetic acid [Option ID = 4155]
2. monoalkyl ethylacetoacetate [Option ID = 4153]
3. alkyl acetate [Option ID = 4154]
4. 2 molecules of ethanol [Option ID = 4156]

**Correct Answer :-**

- monoalkyl ethylacetoacetate [Option ID = 4153]

**63) "Kewda oil" is obtained from which one of the following plant species? [Question ID = 1106]**

1. *Pandanus odoratissimus* [Option ID = 4421]
2. *Lavandula angustifolia* [Option ID = 4422]
3. *Nardostachys jatamansi* [Option ID = 4424]
4. *Rosmarinus officinalis* [Option ID = 4423]

**Correct Answer :-**

- *Pandanus odoratissimus* [Option ID = 4421]

**64)  $15x=21$ ;  $x=?$  [Question ID = 1099]**

1.  $5/7$  [Option ID = 4394]
2.  $7/5$  [Option ID = 4393]
3.  $3/7$  [Option ID = 4395]
4.  $7/3$  [Option ID = 4396]

**Correct Answer :-**

- $7/5$  [Option ID = 4393]

**65) RAS protein activation leads to [Question ID = 1068]**

1. Activation of oncoprotein [Option ID = 4270]
2. Activation of Tumor suppressor pathway [Option ID = 4269]
3. Inactivation of antiapoptotic proteins [Option ID = 4272]
4. Inactivation of MAP kinase pathway [Option ID = 4271]

**Correct Answer :-**

- Activation of oncoprotein [Option ID = 4270]

**66) The symmetry element present in a molecule of chloroform is [Question ID = 1016]**

1. C2 [Option ID = 4061]
2. C6 [Option ID = 4064]
3. C4 [Option ID = 4063]
4. C3 [Option ID = 4062]

**Correct Answer :-**

- C3 [Option ID = 4062]

**67) The symmetry element present in a molecule of benzene is [Question ID = 1017]**

1. C5 [Option ID = 4067]
2. C6 [Option ID = 4068]
3. C4 [Option ID = 4066]
4. C3 [Option ID = 4065]

**Correct Answer :-**

- C6 [Option ID = 4068]

**68) Coir of commerce is [Question ID = 1088]**

1. a fibre made from coconut stems [Option ID = 4350]
2. a fibre derived from coconut epicarp [Option ID = 4352]
3. a fibre derived from coconut mesocarp [Option ID = 4351]
4. a fibre derived from coconut endosperm. [Option ID = 4349]

**Correct Answer :-**

- a fibre derived from coconut mesocarp [Option ID = 4351]

**69) Viral replication within the cells is inhibited by [Question ID = 1111]**

1. TNF alpha [Option ID = 4444]
2. IL-1 [Option ID = 4442]
3. IFN alpha [Option ID = 4443]
4. IL-4 [Option ID = 4441]

**Correct Answer :-**

- IFN alpha [Option ID = 4443]

**70) Site directed mutagenesis facilitated research on [Question ID = 1051]**

1. Fats [Option ID = 4204]
2. Lipids [Option ID = 4203]
3. Carbohydrates [Option ID = 4201]
4. Proteins [Option ID = 4202]

**Correct Answer :-**

- Proteins [Option ID = 4202]

**71) Which of the following toxicity can occur due to single exposure? [Question ID = 1112]**

1. Sub-chronic toxicity [Option ID = 4447]
2. Chronic toxicity [Option ID = 4448]

3. Acute toxicity [Option ID = 4445]
4. Sub-acute toxicity [Option ID = 4446]

**Correct Answer :-**

- Acute toxicity [Option ID = 4445]

**72) Which of the following metal ions can intercalate into graphite [Question ID = 1028]**

1. K [Option ID = 4112]
2. V [Option ID = 4111]
3. Ti [Option ID = 4110]
4. Sc [Option ID = 4109]

**Correct Answer :-**

- K [Option ID = 4112]

**73) Which of the following serves as bactericidal agent? [Question ID = 1059]**

1. Myoglobin [Option ID = 4236]
2. Ribonuclease [Option ID = 4233]
3. Cytochrome c [Option ID = 4235]
4. Lysozyme [Option ID = 4234]

**Correct Answer :-**

- Lysozyme [Option ID = 4234]

**74) Which of the following buffers can be sterilized in an autoclave at 15ILBs pressure [Question ID = 1114]**

1. Phosphate Buffered Saline with 10% CaCl<sub>2</sub> [Option ID = 4455]
2. Phosphate buffered saline with 10% glucose [Option ID = 4453]
3. Phosphate buffered saline with 10% urea [Option ID = 4454]
4. Phosphate buffered Saline with 10% serum and 10% glucose [Option ID = 4456]

**Correct Answer :-**

- Phosphate Buffered Saline with 10% CaCl<sub>2</sub> [Option ID = 4455]

**75) Which of the following atoms is essential for E1cB reaction to take place [Question ID = 1018]**

1. selenium [Option ID = 4072]
2. Bromine [Option ID = 4070]
3. Sulfur [Option ID = 4071]
4. Fluorine [Option ID = 4069]

**Correct Answer :-**

- Fluorine [Option ID = 4069]

**76) Which of the following macroscopic disease symptoms is NOT typical of virus infections in plants? [Question ID = 1103]**

1. Stunting due to reduction in internode lengths [Option ID = 4409]
2. Mosaics, ring spots and vein clearing of leaves [Option ID = 4410]
3. Epinasty and development of leaf enations [Option ID = 4411]
4. Pustules, streaks and blotches on leaves [Option ID = 4412]

**Correct Answer :-**

- Pustules, streaks and blotches on leaves [Option ID = 4412]

**77) Which of the following is not a gram negative bacteria [Question ID = 1085]**

1. Clostridium perfringes [Option ID = 4337]
2. Vibrio Cholera [Option ID = 4338]
3. Bordetella pertusis [Option ID = 4340]
4. Escherichia coli [Option ID = 4339]

**Correct Answer :-**

- Clostridium perfringes [Option ID = 4337]

**78) Which of the following is not a G-protein coupled receptor? [Question ID = 1049]**

1. Glycine receptor [Option ID = 4193]
2. Adrenergic receptor [Option ID = 4194]
3. Muscarinic receptor [Option ID = 4196]
4. Glutamate receptor [Option ID = 4195]

**Correct Answer :-**

- Glycine receptor [Option ID = 4193]

**79) Which of the following bacterial operon is not controlled by attenuation? [Question ID = 1058]**

1. Leucine [Option ID = 4231]
2. Histidine [Option ID = 4232]
3. Tryptophan [Option ID = 4230]
4. Arabinose [Option ID = 4229]

**Correct Answer :-**

- Arabinose [Option ID = 4229]

**80) Which of the following statement is incorrect [Question ID = 1113]**

1. In affinity chromatography, lectins are used to purify glycoproteins [Option ID = 4450]
2. In ion exchange chromatography, the bound protein is eluted using NaCl solution. [Option ID = 4449]
3. All of these [Option ID = 4452]
4. The separation in gel filtration chromatography is based on size, shape and net charge of the protein [Option ID = 4451]

**Correct Answer :-**

- The separation in gel filtration chromatography is based on size, shape and net charge of the protein [Option ID = 4451]

**81) Which of the following is most likely to cause the heart to go into spastic contraction? [Question ID = 1073]**

1. Decreased extracellular fluid potassium ions [Option ID = 4290]
2. Excess extracellular fluid calcium ions [Option ID = 4292]
3. Excess extracellular fluid potassium ions [Option ID = 4291]
4. Increased body temperature [Option ID = 4289]

**Correct Answer :-**

- Excess extracellular fluid calcium ions [Option ID = 4292]

**82) Which one of the following therapies will involve only the cancerous cells not the normal cells in treatment [Question ID = 1064]**

1. surgery [Option ID = 4254]
2. immunotherapy [Option ID = 4253]
3. chemotherapy [Option ID = 4256]
4. aromatherapy [Option ID = 4255]

**Correct Answer :-**

- immunotherapy [Option ID = 4253]

**83) Which one of the following cancers does not form a solid neoplasm [Question ID = 1065]**

1. lymphoma [Option ID = 4258]
2. lipoma [Option ID = 4259]
3. leukemia [Option ID = 4257]
4. sarcoma [Option ID = 4260]

**Correct Answer :-**

- leukemia [Option ID = 4257]

**84) Bacterial flagella imparts motility to the cell by [Question ID = 1110]**

1. gliding movement [Option ID = 4439]
2. undulating movement [Option ID = 4437]
3. rotatory movement [Option ID = 4438]
4. both, undulating movement & rotatory movement [Option ID = 4440]

**Correct Answer :-**

- rotatory movement [Option ID = 4438]

**85) Trans-2-butene has a dipole moment of [Question ID = 1041]**

1. 0 [Option ID = 4161]
2. 0.5 [Option ID = 4162]
3. 1 [Option ID = 4163]
4. 1.5 [Option ID = 4164]

**Correct Answer :-**

- 0 [Option ID = 4161]

**86) Protein kinase A is [Question ID = 1050]**

1. Affected by cyclic AMP only under unusual circumstances [Option ID = 4199]
2. Activated by covalent bin [Option ID = 4200]
3. Completely inhibited by cyclic AMP [Option ID = 4197]
4. Allosterically activated by cyclic AMP [Option ID = 4198]

**Correct Answer :-**

- Allosterically activated by cyclic AMP [Option ID = 4198]

**87) Which metal ion is present in the active site of alcohol dehydrogenase [Question ID = 1019]**

1. Ca<sup>2+</sup> [Option ID = 4073]



2. Zn<sup>2+</sup> [Option ID = 4074]
3. Cd<sup>2+</sup> [Option ID = 4076]
4. Mg<sup>2+</sup> [Option ID = 4075]

**Correct Answer :-**

- Zn<sup>2+</sup> [Option ID = 4074]

**88) Which micronutrient prevents neural tube defects in the developing Fetus [Question ID = 1076]**

1. Thiamine [Option ID = 4301]
2. Folate [Option ID = 4303]
3. Pyridoxine [Option ID = 4302]
4. Niacin [Option ID = 4304]

**Correct Answer :-**

- Folate [Option ID = 4303]

**89) Repressors in prokaryotes bind to [Question ID = 1052]**

1. Enhancer [Option ID = 4206]
2. Operator [Option ID = 4207]
3. Hormone response element [Option ID = 4208]
4. Promoter [Option ID = 4205]

**Correct Answer :-**

- Operator [Option ID = 4207]

**90) The  $\beta$  subunit of polymerase has a function of \_\_\_\_\_ [Question ID = 1060]**

1. Template binding [Option ID = 4239]
2. Catalytic center [Option ID = 4238]
3. Cation binding [Option ID = 4240]
4. Promoter binding [Option ID = 4237]

**Correct Answer :-**

- Catalytic center [Option ID = 4238]

**91) Actinomycin D is an inhibitor of [Question ID = 1053]**

1. Replication [Option ID = 4211]
2. Transcription [Option ID = 4209]
3. Translation [Option ID = 4210]
4. None [Option ID = 4212]

**Correct Answer :-**

- Transcription [Option ID = 4209]

**92) Porphyrins contain which of the following heterocyclic rings [Question ID = 1027]**

1. Furan [Option ID = 4107]
2. Pyrrole [Option ID = 4105]
3. Dioxan [Option ID = 4108]
4. Thiophene [Option ID = 4106]

**Correct Answer :-**

- Pyrrole [Option ID = 4105]

**93) Methyl orange is used as [Question ID = 1033]**

1. as a strong mineral acid [Option ID = 4132]
2. a Lewis acid [Option ID = 4129]
3. an acid-base indicator [Option ID = 4131]
4. a Lewis base [Option ID = 4130]

**Correct Answer :-**

- an acid-base indicator [Option ID = 4131]

**94) Gram positive bacteria responsible for food poisoning is/are [Question ID = 1082]**

1. Clostridium [Option ID = 4327]
2. All of these [Option ID = 4328]
3. Mycoplasma [Option ID = 4325]
4. Pseudomonas [Option ID = 4326]

**Correct Answer :-**

- Clostridium [Option ID = 4327]

**95) Binap usually forms complexes with [Question ID = 1047]**

1. Ca & Mg [Option ID = 4186]
2. Sn & Fe [Option ID = 4187]
3. Ru & Rh [Option ID = 4188]
4. Na & K [Option ID = 4185]

**Correct Answer :-**

- Ru & Rh [Option ID = 4188]

**96) Cancer is caused by [Question ID = 1062]**

1. rupturing of cells [Option ID = 4247]
2. loss of immunity of the cells [Option ID = 4248]
3. uncontrolled mitosis [Option ID = 4245]
4. uncontrolled meiosis [Option ID = 4246]

**Correct Answer :-**

- uncontrolled mitosis [Option ID = 4245]

**97) Gram staining was introduced by [Question ID = 1084]**

1. Louis Pasteur [Option ID = 4336]
2. Christian Gram [Option ID = 4333]
3. Alfred Gram [Option ID = 4334]
4. Robert cook [Option ID = 4335]

**Correct Answer :-**

- Christian Gram [Option ID = 4333]

**98) Incubating EGF ligand in cultured cell promotes**

**[Question ID = 1066]**

1. Inhibition of EGFR leading to proliferation [Option ID = 4263]
2. EGFR dimerization leading to cell survival [Option ID = 4262]
3. cellular apoptosis and activation of caspase cleavage [Option ID = 4261]
4. Degradation of EGF ligands [Option ID = 4264]

**Correct Answer :-**

- EGFR dimerization leading to cell survival [Option ID = 4262]

**99) Factors of 42 are [Question ID = 1096]**

1. 1,12 [Option ID = 4381]
2. 1,6 [Option ID = 4383]
3. 1,4 [Option ID = 4384]
4. 1,9 [Option ID = 4382]

**Correct Answer :-**

- 1,6 [Option ID = 4383]

**100) Role of sigma factor in bacterial RNA polymerase is [Question ID = 1054]**

1. Unwinding DNA template [Option ID = 4216]
2. Terminating RNA synthesis [Option ID = 4215]
3. Catalyzing RNA synthesis [Option ID = 4213]
4. Positioning RNA polymerase correctly on the DNA template [Option ID = 4214]

**Correct Answer :-**