

National Testing Agency

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Cell Biology

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Cell Biology 1

Section Id :	864351497
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Sub-Section Number : 1
Sub-Section Id : 864351533
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 8643517930 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following structures surrounds cells of both, prokaryotes and eukaryotes?

1. Middle lamella
2. Plasmodesmata
3. Plasma membrane
4. Cellular junction

Options :

- 86435124171. 1
- 86435124172. 2
- 86435124173. 3
- 86435124174. 4

Question Number : 2 Question Id : 8643517931 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Microfilaments are made up of which one of the following proteins?

1. Actin
2. Myosin
3. Pectin
4. Tubulin

Options :

- 86435124175. 1

86435124176. 2

86435124177. 3

86435124178. 4

Question Number : 3 Question Id : 8643517932 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: Biomembranes limit the cell forming closed structures.

Statement II: Biomembranes control the movement of molecules into and out of cells.

In light of the above statements, choose the **correct** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

86435124179. 1

86435124180. 2

86435124181. 3

86435124182. 4

Question Number : 4 Question Id : 8643517933 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which process is involved during the uptake of water by the vacuole?

1. Active diffusion
2. Osmosis
3. Passive diffusion
4. Reverse osmosis

Options :

86435124183. 1

86435124184. 2

86435124185. 3

86435124186. 4

Question Number : 5 Question Id : 8643517934 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

From the following, choose the correct characteristic of biomembrane lipids

1. Amphoteric
2. Amphipathic
3. Hydrophobic
4. Hydrophilic

Options :

86435124187. 1

86435124188. 2

86435124189. 3

86435124190. 4

Question Number : 6 Question Id : 8643517935 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

From the following, choose the organelle involved in the synthesis of glycolipids.

1. Golgi complex
2. Mitochondrion
3. Nucleus
4. Plasma membrane

Options :

- 86435124191. 1
- 86435124192. 2
- 86435124193. 3
- 86435124194. 4

Question Number : 7 Question Id : 8643517936 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following facilitates the transportation of molecules in and out of the cell?

1. Peripheral protein
2. Lipid anchored protein
3. Integral protein
4. Membrane lipid

Options :

- 86435124195. 1
- 86435124196. 2
- 86435124197. 3
- 86435124198. 4

Question Number : 8 Question Id : 8643517937 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which part of the Golgi complex directs the proteins to their final destinations inside the cell?

1. cis-Golgi network
2. trans-Golgi network
3. Tubules
4. Medial cisternae

Options :

- 86435124199. 1
- 86435124200. 2
- 86435124201. 3
- 86435124202. 4

Question Number : 9 Question Id : 8643517938 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is NOT a common component in most prokaryotic cell membranes?

1. Lipids
2. Proteins
3. Cholesterol
4. Carbohydrates

Options :

- 86435124203. 1
- 86435124204. 2
- 86435124205. 3
- 86435124206. 4

Question Number : 10 Question Id : 8643517939 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is involved in transporting materials from the *cis* cisternae to the *trans* cisternae of the Golgi complex?

1. Active diffusion
2. Passive diffusion
3. Translocon
4. Transport vesicles

Options :

- 86435124207. 1
- 86435124208. 2
- 86435124209. 3
- 86435124210. 4

Question Number : 11 Question Id : 8643517940 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: The cell wall of gram positive bacteria are composed of many layers of peptidoglycan and teichoic acids.

Statement II: The cell wall of gram negative bacteria are composed of few layers of chitin

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

- 86435124211. 1

86435124212. 2

86435124213. 3

86435124214. 4

Question Number : 12 Question Id : 8643517941 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Read the following sentences:

- A. COPII-coated transport vesicles transport materials from ER–Golgi intermediate compartments (ERGICs) to Golgi complex
- B. COPII-coated transport vesicles transport materials from Golgi complex to ERGIC
- C. COPII-coated transport vesicles transport materials from Endoplasmic Reticulum to Golgi complex
- D. COPII-coated transport vesicles transport materials from Golgi complex to Endoplasmic Reticulum
- E. COPII-coated transport vesicles transport materials from Endoplasmic Reticulum to Lysosomes

Choose the **correct** answer from the options given below:

- 1. A only
- 2. B only
- 3. C only
- 4. D & E only

Options :

86435124215. 1

86435124216. 2

86435124217. 3

86435124218. 4

Question Number : 13 Question Id : 8643517942 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: The cuticle of the primary cell wall is formed by cutin and wax

Statement II: The cuticle of the primary cell wall is formed by lignin and fats

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

86435124219. 1

86435124220. 2

86435124221. 3

86435124222. 4

Question Number : 14 Question Id : 8643517943 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Receptors present on which one of the following structures capture the retrieval signals present on the C-terminus of ER resident proteins?

1. Clathrin-coated vesicles
2. COPI-coated vesicles
3. COPII-coated vesicles
4. Exocytic vesicles

Options :

- 86435124223. 1
- 86435124224. 2
- 86435124225. 3
- 86435124226. 4

Question Number : 15 Question Id : 8643517944 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: The waterproof nature of the plant cell wall is provided by the presence of cutin between cellulose, hemicellulose and pectin.

Statement II: The waterproof nature of the plant cell wall is provided by the presence of lignin in between cellulose, hemicellulose and pectin.

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

- 86435124227. 1
- 86435124228. 2
- 86435124229. 3
- 86435124230. 4

Question Number : 16 Question Id : 8643517945 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Cell to cell interaction occurs through which one of the following?

- 1. Cell adhesions
- 2. Cell detectors
- 3. Cell junctions
- 4. Cell tubules

Options :

- 86435124231. 1
- 86435124232. 2
- 86435124233. 3
- 86435124234. 4

Question Number : 17 Question Id : 8643517946 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following statement(s) is (are) true?

- A. Glycolipids and glycoproteins are found less in the exoplasmic leaflet of plasma membranes of eukaryotic cells.
- B. Glycolipids and glycoproteins are found abundantly in the endoplasmic leaflet of plasma membranes of eukaryotic cells.
- C. Glycolipids are absent in the inner mitochondrial membrane, chloroplast lamellae, and other intracellular membranes
- D. Glycolipids and glycoproteins are present in the inner mitochondrial membrane, chloroplast lamellae, and other intracellular membranes

Choose the correct answer from the options given below

- 1. Only A is True
- 2. Only B is True
- 3. Only C is True
- 4. Only D is True

Options :

- 86435124235. 1
- 86435124236. 2
- 86435124237. 3
- 86435124238. 4

Question Number : 18 Question Id : 8643517947 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following activities is NOT related to Cajal bodies?

1. Histone mRNA processing
2. snRNP biogenesis
3. Telomere assembly
4. tRNA processing

Options :

- 86435124239. 1
- 86435124240. 2
- 86435124241. 3
- 86435124242. 4

Question Number : 19 Question Id : 8643517948 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The gel-like state of the membrane is due to which one of the following?

1. Phospholipids with long, saturated fatty acyl chains
2. Phospholipids with short fatty acyl chains
3. Phospholipids with unsaturated fatty acyl chains
4. Van der waals interaction between phospholipid

Options :

- 86435124243. 1
- 86435124244. 2
- 86435124245. 3
- 86435124246. 4

Question Number : 20 Question Id : 8643517949 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the property of the membrane affected mostly by the transition temperature.

1. Fluidity
2. Internal composition
3. Internal environment
4. Size

Options :

- 86435124247. 1
- 86435124248. 2
- 86435124249. 3
- 86435124250. 4

Question Number : 21 Question Id : 8643517950 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What amount of water is strongly bound to macromolecules and does not take part actively in osmosis?

1. 5%
2. 20%
3. 50%
4. 70%

Options :

- 86435124251. 1
- 86435124252. 2
- 86435124253. 3
- 86435124254. 4

Question Number : 22 Question Id : 8643517951 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which type of phosphoglycerides are present in cell membrane?

1. Monoglyceride
2. Diglyceride
3. Triglyceride
4. Polyglyceride

Options :

- 86435124255. 1
- 86435124256. 2
- 86435124257. 3
- 86435124258. 4

Question Number : 23 Question Id : 8643517952 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In cells, osmoregulation is aided by the gradient of ions created by which of the following?

- A. Higher concentration of potassium ions and a lower concentration of sodium ions in cytosol compared to the extracellular fluid
- B. Lower concentration of potassium ions and a higher concentration of sodium ions in cytosol compared to the extracellular fluid

Choose the correct answer from the options given below:

1. Only A is True
2. Only B is True
3. Both A and B are True
4. Both A and B are False

Options :

- 86435124259. 1
- 86435124260. 2
- 86435124261. 3
- 86435124262. 4

Question Number : 24 Question Id : 8643517953 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following components of cell membranes is involved in determining the curvature of the membrane?

1. Phosphatidyl choline
2. Phosphatidyl ethanolamine
3. Phosphatidyl serine
4. Phosphatidyl inositol

Options :

- 86435124263. 1
- 86435124264. 2
- 86435124265. 3
- 86435124266. 4

Question Number : 25 Question Id : 8643517954 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a function of cytosol?

1. The cytosol serves as the site for cellular digestion
2. The cytosol serves as the site for intracellular transport of molecules across the cell or between cellular organelles
3. The cytosol serves as the site for signal transduction from the cell membrane to the nucleus or organelles inside the cell
4. The cytosol plays major role in maintaining water balance within the cell

Options :

- 86435124267. 1
- 86435124268. 2

86435124269. 3

86435124270. 4

Question Number : 26 Question Id : 8643517955 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

GLUT1 is a/an

1. Active transporter
2. Channel protein
3. Facilitative transporter
4. Lipid-anchored protein

Options :

86435124271. 1

86435124272. 2

86435124273. 3

86435124274. 4

Question Number : 27 Question Id : 8643517956 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

State True or False

- A. Gibbs free energy of activation is the difference between the free energy of transition state and the substrates
- B. Gibbs free energy of activation is the difference between the free energy of transition state and products

Choose the correct answer from the options given below

- 1. Both A and B are True
- 2. Both A and B are False
- 3. Only A is True
- 4. Only B is True

Options :

- 86435124275. 1
- 86435124276. 2
- 86435124277. 3
- 86435124278. 4

Question Number : 28 Question Id : 8643517957 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following viruses does not cause tumours?

- 1. Adenovirus
- 2. HIV
- 3. SV40
- 4. Polyoma virus

Options :

- 86435124279. 1
- 86435124280. 2
- 86435124281. 3

86435124282. 4

Question Number : 29 Question Id : 8643517958 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is NOT correct about neuropeptides?

1. Neuropeptides are a group of signaling molecules
2. Neuropeptide transmitters are released outside the synaptic zone
3. Neuropeptides are stored in cytosol
4. Neuropeptides are long lived

Options :

- 86435124283. 1
- 86435124284. 2
- 86435124285. 3
- 86435124286. 4

Question Number : 30 Question Id : 8643517959 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is mostly responsible for the development of cancer?

1. Cytochrome c
2. EGF
3. TP53
4. T63

Options :

- 86435124287. 1
- 86435124288. 2
- 86435124289. 3
- 86435124290. 4

Question Number : 31 Question Id : 8643517960 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In secondary active transport, the cotransporter utilize the energy from which of the following?

1. Energy stored in an electrochemical gradient
2. Energy from hydrolysis of ATP
3. Energy from external source
4. Energy stored in the mitochondria

Options :

- 86435124291. 1
- 86435124292. 2
- 86435124293. 3
- 86435124294. 4

Question Number : 32 Question Id : 8643517961 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which is the name for endocrine messengers?

1. Antibody
2. Antigen
3. Hormones
4. Receptors

Options :

- 86435124295. 1
- 86435124296. 2
- 86435124297. 3
- 86435124298. 4

Question Number : 33 Question Id : 8643517962 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Read the following statements about the functions of ATP powered pump and choose the correct option.

- A. They maintain calcium and sodium ion concentration inside the cell
- B. They maintain low pH inside lysosomes in animal cells
- C. They maintain low pH in plant cell vacuoles

- 1. All A, B, and C are True
- 2. All A, B, and C are False
- 3. Only A and B are True but C is False
- 4. Both A and B are False but C is True

Options :

- 86435124299. 1
- 86435124300. 2
- 86435124301. 3
- 86435124302. 4

Question Number : 34 Question Id : 8643517963 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What does the binding of protein kinases and phosphatases to the signaling proteins lead to?

- 1. Change in acidity
- 2. Change in basicity
- 3. Change in conformation
- 4. Change in size

Options :

- 86435124303. 1
- 86435124304. 2
- 86435124305. 3

86435124306. 4

Question Number : 35 Question Id : 8643517964 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Tonoplast surround which of the following?

1. Mitochondria
2. Chloroplast
3. Vacuole
4. Nucleus

Options :

86435124307. 1
86435124308. 2
86435124309. 3
86435124310. 4

Question Number : 36 Question Id : 8643517965 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

How many transmembrane alpha helices do G-protein coupled receptors contain?

1. 2
2. 5
3. 7
4. 9

Options :

86435124311. 1
86435124312. 2
86435124313. 3
86435124314. 4

Question Number : 37 Question Id : 8643517966 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following structures carries out degradation of cell organelles?

1. Protein vacuole
2. Lytic vacuole
3. Pigment vacuole
4. Crystal vacuole

Options :

- 86435124315. 1
- 86435124316. 2
- 86435124317. 3
- 86435124318. 4

Question Number : 38 Question Id : 8643517967 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following forces is responsible for stabilizing the inactive conformation of a G-protein coupled receptor?

1. Covalent interactions
2. Hydrogen binding
3. Ionic interactions
4. Non-covalent interactions

Options :

- 86435124319. 1
- 86435124320. 2
- 86435124321. 3
- 86435124322. 4

Question Number : 39 Question Id : 8643517968 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Choose the main function of the gas vacuoles found in cyanobacteria.

1. Controlling buoyancy of cells
2. Storage of gas
3. Excretion
4. Nutrition

Options :

86435124323. 1

86435124324. 2

86435124325. 3

86435124326. 4

Question Number : 40 Question Id : 8643517969 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is a calcium-binding protein?

1. Calmodulin
2. Cyclin
3. Pectin
4. Renin

Options :

86435124327. 1

86435124328. 2

86435124329. 3

86435124330. 4

Question Number : 41 Question Id : 8643517970 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Neurotransmitters are usually stored in which one of the following structures?

1. Vacuoles
2. Synaptic vesicles
3. Golgi body
4. Synaptic cytosol

Options :

- 86435124331. 1
- 86435124332. 2
- 86435124333. 3
- 86435124334. 4

Question Number : 42 Question Id : 8643517971 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the role of cytokines in apoptosis? They act as

1. external stimuli
2. internal stimuli
3. inhibitors
4. substitutes

Options :

- 86435124335. 1
- 86435124336. 2
- 86435124337. 3
- 86435124338. 4

Question Number : 43 Question Id : 8643517972 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following statements are correct?

- A. The rhodopsin receptor for light and olfactory receptors for odours belong to Ligand gated ion channel
- B. The rhodopsin receptor for light and olfactory receptors for odours belong to G protein coupled receptors

Choose the correct answer from the options given below

- 1. A is True and B is False
- 2. A is False and B is True
- 3. Both A and B are True
- 4. Both A and B are False

Options :

- 86435124339. 1
- 86435124340. 2
- 86435124341. 3
- 86435124342. 4

Question Number : 44 Question Id : 8643517973 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

At the site of fusion between outer and inner membranes, the nuclear pores possesses which of the following structures?

- 1. Sixfold-symmetric ring-shaped structure
- 2. Sevenfold-symmetric ring-shaped structure
- 3. Eightfold-symmetric ring-shaped structure
- 4. Ninefold-symmetric ring-shaped structure

Options :

- 86435124343. 1
- 86435124344. 2

86435124345. 3

86435124346. 4

Question Number : 45 Question Id : 8643517974 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the concentration of agarose commonly used to resolve DNA fragments from about 0.2 kbp to 50 kbp in size from the given options.

1. 0.5% to 3%
2. 3.5% to 6%
3. 6.5% to 9%
4. 9.5 to 12%

Options :

86435124347. 1

86435124348. 2

86435124349. 3

86435124350. 4

Question Number : 46 Question Id : 8643517975 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is due to increase in cholesterol in the biomembrane?

1. Increased fluidity of membrane
2. Decreased fluidity of membrane
3. Neither increase nor decrease in fluidity of membrane.
4. Increase in membrane temperature

Options :

86435124351. 1

86435124352. 2

86435124353. 3

86435124354. 4

Question Number : 47 Question Id : 8643517976 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are statements regarding the mitochondria of the cell

Statement I: The inner wall of mitochondria is highly folded

Statement II: The mitochondrial inner membrane has ATP synthase for energy production

Statement III: Mitochondria possess coloured pigments

In light of the above statements, choose the **most appropriate** answer from the options given below

1. All Statement I, Statement II and Statement III are correct
2. All Statement I, Statement II and Statement II are incorrect
3. Statement I and Statement II are incorrect but Statement III is correct
4. Statement I and Statement II are correct but Statement III is incorrect

Options :

86435124355. 1

86435124356. 2

86435124357. 3

86435124358. 4

Question Number : 48 Question Id : 8643517977 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Arrange the steps involved in the process of autophagy in the correct sequence

- A. elongation
- B. fusion
- C. maturation
- D. degradation
- E. initiation

Choose the **correct** answer from the options given below.

1. A, B, C, D, E
2. A, C, D, E, B
3. E, A, C, B, D
4. A, E, C, B, D

Options :

- 86435124359. 1
- 86435124360. 2
- 86435124361. 3
- 86435124362. 4

Question Number : 49 Question Id : 8643517978 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the correct statement (s).

A. *Escherichia coli* is a gram positive bacteria

B. *Bacillus subtilis* is a gram negative bacteria

1. Both A and B are True
2. Both A and B are False
3. Only A is True
4. Only B is True

Options :

86435124363. 1

86435124364. 2

86435124365. 3

86435124366. 4

Question Number : 50 Question Id : 8643517979 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Arrange some of the steps that occur during the formation of a secondary tumour in the correct sequence:

- A. Intravasation
- B. Extravasation
- C. Invasion
- D. Survival

Choose the **correct** answer from the options given below

- 1. A, B, C, D
- 2. C, A, D, B
- 3. C, A, B, D
- 4. A, C, B, D

Options :

- 86435124367. 1
- 86435124368. 2
- 86435124369. 3
- 86435124370. 4

Question Number : 51 Question Id : 8643517980 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following determines the thickness of the membrane?

- 1. Lipid composition
- 2. Carbohydrate composition
- 3. Protein composition
- 4. Water content

Options :

- 86435124371. 1
- 86435124372. 2
- 86435124373. 3
- 86435124374. 4

Question Number : 52 Question Id : 8643517981 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Arrange the steps in activation of gene expression through G-protein coupled receptors in the correct sequence:

- A. Binding of ligand to the receptor which lead to the activation of PKA
- B. Phosphorylation and activation of the transcription factor CREB
- C. Translocation of the catalytic subunits of PKA to the nucleus
- D. Stimulation of the expression of target gene

Choose the **correct** answer from the options given below

- 1. A, B, C, D
- 2. A, C, B, D
- 3. B, A, C, D
- 4. C, A, B, D

Options :

- 86435124375. 1
- 86435124376. 2
- 86435124377. 3
- 86435124378. 4

Question Number : 53 Question Id : 8643517982 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: Golgi bodies modify, sort and package proteins and lipids coming from ER

Statement II: The *trans* face is the forming face and the *cis* face is the maturing face

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

86435124379. 1

86435124380. 2

86435124381. 3

86435124382. 4

Question Number : 54 Question Id : 8643517983 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following factors regulate autophagy?

1. Insulin/IGF-1 (Insulin-like Growth Factor 1)
2. m-TOR (mammalian target of rapamycin)
3. DRAM (Damage-regulated autophagy modulator) and p53
4. All of the above

Options :

86435124383. 1

86435124384. 2

86435124385. 3

86435124386. 4

Question Number : 55 Question Id : 8643517984 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: Chloroplast and mitochondria possess their own genetic material and ribosome of 70S type

Statement II: Chloroplast and mitochondria have their own autonomy but are still dependent on nucleus

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

86435124387. 1

86435124388. 2

86435124389. 3

86435124390. 4

Question Number : 56 Question Id : 8643517985 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Arrange in the correct sequence the three layers of plant cell wall, from inside to outside

- A. Primary wall
- B. Middle lamella
- C. Secondary wall

Choose the **correct** from the options given below

- 1. A, B, C
- 2. B, A, C
- 3. C, A, B
- 4. C, B, A

Options :

- 86435124391. 1
- 86435124392. 2
- 86435124393. 3
- 86435124394. 4

Question Number : 57 Question Id : 8643517986 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The dissociation of which one of the following is involved in completion of the autophagosome formation?

- 1. Atg16-Atg5-Atg12 complex
- 2. Atg18-Atg5-Atg12 complex
- 3. Atg16-Atg2-Atg12 complex
- 4. Atg16-Atg5-Atg18 complex

Options :

- 86435124395. 1

86435124396. 2

86435124397. 3

86435124398. 4

Question Number : 58 Question Id : 8643517987 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: Peroxisomes are involved in photorespiration in plant cells

Statement II: Peroxisomes help in lipid metabolism in animal cells

In light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

86435124399. 1

86435124400. 2

86435124401. 3

86435124402. 4

Question Number : 59 Question Id : 8643517988 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are the phases of cell cycle:

- A. S-phase
- B. G₁-phase
- C. G₂ -phase
- D. M-phase

Choose the **correct** sequence of phases of cell cycle from the options given below

- 1. A, B, C, D
- 2. B, A, C, D
- 3. C, B, A, D
- 4. B, D, A, C

Options :

- 86435124403. 1
- 86435124404. 2
- 86435124405. 3
- 86435124406. 4

Question Number : 60 Question Id : 8643517989 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following represents the concentration of a solute expressed as parts of a total of 100 parts?

- 1. Molar solution
- 2. Weight solution
- 3. Volume solution
- 4. Percent solution

Options :

- 86435124407. 1
- 86435124408. 2
- 86435124409. 3
- 86435124410. 4

Question Number : 61 Question Id : 8643517990 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: Sphaerosomes take part in storage and synthesis of lipids

Statement II: Sphaerosomes are found abundantly in endosperms of oil seeds

In light of the above statements, choose the **most appropriate** answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 86435124411. 1
- 86435124412. 2
- 86435124413. 3
- 86435124414. 4

Question Number : 62 Question Id : 8643517991 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are some possible arrangements of phases of M-phase of cell cycle:

A. Metaphase → Prophase → Anaphase → Cytokinesis → Telophase

B. Prophase → Metaphase → Anaphase → Telophase → Cytokinesis

C. Metaphase → Prophase → Anaphase → Telophase → Cytokinesis

D. Metaphase → Prophase → Telophase → Anaphase → Cytokinesis

Choose the **correct** order of phases of M-phase of cell cycle from the options given below .

1. A
2. B
3. C
4. D

Options :

- 86435124415. 1
- 86435124416. 2
- 86435124417. 3
- 86435124418. 4

Question Number : 63 Question Id : 8643517992 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the disposal method for disposing of hazardous chemicals.

1. Disposing in disposal containers
2. Disposing in disposal containers kept in the fume hood
3. Disposing in disposal containers kept in the UV chamber
4. Autoclaving at high temperatures and pressures

Options :

- 86435124419. 1

86435124420. 2

86435124421. 3

86435124422. 4

Question Number : 64 Question Id : 8643517993 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In eukaryotic cells, the formation of the following structures is seen:

A. Nucleosome

B. DNA

C. Chromatid

D. Chromosome

E. Solenoid

F. Chromatin fibre

Choose the **correct** order for the packaging of DNA from the options given below

1. A, B, C, D, E, F

2. A, C, B, E, D, F

3. D, F, E, B, C, A

4. B, A, E, F, C, D

Options :

86435124423. 1

86435124424. 2

86435124425. 3

86435124426. 4

Question Number : 65 Question Id : 8643517994 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements

Statement I: A Molar solutions contains specific number of moles of the solute in 1000 ml of the solvent

Statement II: A Molar solutions contains specific weight of moles of the solute in 1000 g of the solvent

In light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

- 86435124427. 1
- 86435124428. 2
- 86435124429. 3
- 86435124430. 4

Question Number : 66 Question Id : 8643517995 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Read the following sequence of steps:

A. cell fragmentation → disassemble nuclear envelope → cytoskeleton collapse → release of apoptotic bodies → cell shrinkage

B. cell fragmentation → cell shrinkage → cytoskeleton collapse → release of apoptotic bodies → disassemble nuclear envelope

C. Cytoskeleton collapse → cell shrinkage → release of apoptotic bodies → cell fragmentation → disassemble nuclear envelope

D. cell shrinkage → cell fragmentation → cytoskeleton collapse → disassemble nuclear envelope → release of apoptotic bodies

Choose the **correct** steps of apoptosis from the options given below

1. A
2. B
3. C
4. D

Options :

86435124431. 1

86435124432. 2

86435124433. 3

86435124434. 4

Question Number : 67 Question Id : 8643517996 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following activities leads to termination of signaling by acetylcholine and neuropeptides?

1. Enzymatic degradation of the signal transmitter
2. Uptake of the neurotransmitters
3. Diffusing away of the neurotransmitters from the synaptic cleft
4. Closing of the synaptic cleft

Options :

- 86435124435. 1
- 86435124436. 2
- 86435124437. 3
- 86435124438. 4

Question Number : 68 Question Id : 8643517997 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Where do transcription, post translational processing and assembly of rRNA takes place?

1. Nuclear matrix
2. Nucleoplasm
3. Nucleosome
4. Nucleolus

Options :

- 86435124439. 1
- 86435124440. 2
- 86435124441. 3
- 86435124442. 4

Question Number : 69 Question Id : 8643517998 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is true about the bacterial oriC?

1. It is an enzyme
2. It is a transcription factor
3. It is a specific sequence
4. It is a polypeptide

Options :

- 86435124443. 1
- 86435124444. 2
- 86435124445. 3
- 86435124446. 4

Question Number : 70 Question Id : 8643517999 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following stain is used to stain chromosomes?

1. Gram stain
2. Acetocarmine stain
3. Methylene blue
4. Crystal violet

Options :

- 86435124447. 1
- 86435124448. 2
- 86435124449. 3
- 86435124450. 4

Question Number : 71 Question Id : 8643518000 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The increase in cytosolic concentration of which one of the following triggers the release of both neurotransmitters and neuropeptides?

1. K^+
2. Na^+
3. Ca^{2+}
4. Mg^{2+}

Options :

- 86435124451. 1
- 86435124452. 2
- 86435124453. 3
- 86435124454. 4

Question Number : 72 Question Id : 8643518001 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is the main function of intracellular signaling proteins in cell signaling?

1. Recognition of signaling molecule
2. Travelling to neighbouring cells
3. Binding to receptor and initiation of signaling cascade
4. Causing changes in the cell pH

Options :

- 86435124455. 1
- 86435124456. 2
- 86435124457. 3
- 86435124458. 4

Question Number : 73 Question Id : 8643518002 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following enzymes is responsible for removing the positive supercoils introduced during the movement of replication fork?

1. Endonuclease
2. Exonuclease
3. Gyrase
4. Helicase

Options :

86435124459. 1
86435124460. 2
86435124461. 3
86435124462. 4

Question Number : 74 Question Id : 8643518003 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To which of the following type of signaling does synaptic signalling belong to?

1. Endocrine signalling
2. Paracrine signalling
3. Autocrine signalling
4. Direct contact signalling

Options :

86435124463. 1
86435124464. 2
86435124465. 3
86435124466. 4

Question Number : 75 Question Id : 8643518004 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the other name for "fibroblast-like" migration?

1. Mesenchymal type
2. Amoeboid type
3. Collective migration type
4. Single migration type

Options :

- 86435124467. 1
- 86435124468. 2
- 86435124469. 3
- 86435124470. 4

Question Number : 76 Question Id : 8643518005 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The receptors for insulin and many growth factors commonly belong to which one of the following types?

1. G protein coupled receptor
2. Receptor with intrinsic enzymatic activity
3. Ion channel linked receptor
4. Tyrosine kinase linked receptor

Options :

- 86435124471. 1
- 86435124472. 2
- 86435124473. 3
- 86435124474. 4

Question Number : 77 Question Id : 8643518006 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following enzyme initiates DNA synthesis during replication?

1. Gyrase
2. Ligase
3. Primase
4. Polymerase

Options :

86435124475. 1
86435124476. 2
86435124477. 3
86435124478. 4

Question Number : 78 Question Id : 8643518007 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following mediates the arrest of tumour cells and adhesion contributing to metastasis?

1. Connexins
2. Integrin
3. Selectin
4. Paxillin

Options :

86435124479. 1
86435124480. 2
86435124481. 3
86435124482. 4

Question Number : 79 Question Id : 8643518008 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Select the correct option for the inactive conformation of G-proteins.

1. It is bound to GDP
2. It is bound to GTP
3. It is bound to ADP
4. It is bound to ATP

Options :

- 86435124483. 1
- 86435124484. 2
- 86435124485. 3
- 86435124486. 4

Question Number : 80 Question Id : 8643518009 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following cells have the capacity to carry out asymmetric cell division?

1. Epithelial cells
2. Hepatocytes
3. Melanocytes
4. Neurons

Options :

- 86435124487. 1
- 86435124488. 2
- 86435124489. 3
- 86435124490. 4

Question Number : 81 Question Id : 8643518010 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following represents malignant tumours derived from endoderm or ectoderm?

1. Carcinomas
2. Sarcomas
3. Leukemia
4. None of the above

Options :

86435124491. 1
86435124492. 2
86435124493. 3
86435124494. 4

Question Number : 82 Question Id : 8643518011 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Cell components	Functions
A. Chromosome	I. Autophagy
B. Vacuole	II. Holds the cell components
C. Cytoplasm	III. Protein synthesis
D. Ribosomes	IV. Contain DNA

Choose the **correct** answer from the options given below:

1. A - IV, B - I, C - II, D - III
2. A - I, B - II, C - III, D - IV
3. A - II, B - I, C - IV, D - III
4. A - IV, B - II, C - I, D - III

Options :

- 86435124495. 1
- 86435124496. 2
- 86435124497. 3
- 86435124498. 4

Question Number : 83 Question Id : 8643518012 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To prepare 5 liters of 3 M HCl, what volume of 12.6 M HCl must be added to water?

- 1. 0.50 L
- 2. 1.19 L
- 3. 2.15 L
- 4. 5.05 L

Options :

- 86435124499. 1
- 86435124500. 2
- 86435124501. 3
- 86435124502. 4

Question Number : 84 Question Id : 8643518013 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Process	Enzymes
A. Replication	I. Peptidyl transferase
B. Transcription	II. Endonuclease
C. Translation	III. DNA polymerase
D. Splicing	IV. RNA polymerase

Choose the **correct** answer from the options given below:

1. A - I, B - II, C - III, D - IV
2. A - II, B - IV, C - I, D - III
3. A - III, B - IV, C - I, D - II
4. A - IV, B - II, C - I, D - III

Options :

86435124503. 1
86435124504. 2
86435124505. 3
86435124506. 4

Question Number : 85 Question Id : 8643518014 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The process of partitioning of cytoplasm during cell division is

1. Cytokinesis
2. Karyokinesis
3. Disjunction
4. Osmosis

Options :

86435124507. 1

86435124508. 2

86435124509. 3

86435124510. 4

Question Number : 86 Question Id : 8643518015 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Cell cycle phase	Activity
A. G1 phase	I. DNA synthesis
B. S phase	II. Cell division
C. G2 phase	III. Growth and preparation for mitosis
D. M phase	IV. Cell growth

Choose the **correct** answer from the options given below:

1. A - I, B - III, C - IV, D - II
2. A - II, B - I, C - IV, D - III
3. A - IV, B - I, C - III, D - II
4. A - I, B - II, C - III, D - IV

Options :

86435124511. 1

86435124512. 2

86435124513. 3

86435124514. 4

Question Number : 87 Question Id : 8643518016 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What will be the dilution factor if 0.2 mL of a stock solution is added to 3.8 mL of diluent?

1. 1:10 dilution
2. 1:20 dilution
3. 1:30 dilution
4. 1:50 dilution

Options :

- 86435124515. 1
- 86435124516. 2
- 86435124517. 3
- 86435124518. 4

Question Number : 88 Question Id : 8643518017 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Gene	Function
A. p53	I. Modulation of cell proliferation
B. PTEN	II. Cell cycle arrest and DNA repair
C. pBR	III. DNA double strand break repair
D. BRCA1	IV. Transcriptional co-repressor

Choose the **correct** answer from the options given below:

1. A - II, B - I, C -IV , D - III
2. A - I, B - II, C - III, D -IV
3. A - III, B - II, C - IV, D - I
4. A -IV , B - II, C - I, D - III

Options :

86435124519. 1

86435124520. 2

86435124521. 3

86435124522. 4

Question Number : 89 Question Id : 8643518018 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is responsible for transporting the proteins that escaped from the ER back to the ER?

1. COPI-coated vesicles
2. COPII-coated transport vesicles
3. Uncoated vesicles
4. Golgi body

Options :

86435124523. 1

86435124524. 2

86435124525. 3

86435124526. 4

Question Number : 90 Question Id : 8643518019 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Signalling types	Targets
A. Autocrine	I. a cell targets a nearby cell
B. Paracrine	II. a cell targets itself
C. Endocrine	III. a cell targets a cell connected by gap junction
D. Signalling across gap junction	IV. a cell targets a distant cell through the bloodstream

Choose the **correct** answer from the options given below:

1. A - I, B - II, C - III, D - IV
2. A -II , B -I , C - IV, D - III
3. A - III, B - II, C -IV , D - I
4. A - IV, B - I, C - III, D -II

Options :

86435124527. 1
86435124528. 2
86435124529. 3
86435124530. 4

Question Number : 91 Question Id : 8643518020 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following prevents the re-association or base pairing of the two separated DNA strands and degradation of the strands by nuclease during replication?

1. Helicase
2. Single strand binding proteins
3. Primase
4. Polymerase

Options :

- 86435124531. 1
- 86435124532. 2
- 86435124533. 3
- 86435124534. 4

Question Number : 92 Question Id : 8643518021 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Transport	Mechanism
A. Simple diffusion	I. Driven by ion concentration gradient
B. Facilitated diffusion	II. Use energy from hydrolysis of ATP
C. Primary active transport	III. Movement through phospholipid bilayer
D. Secondary active transport	IV. Occurs through transmembrane proteins

Choose the **correct** answer from the options given below:

1. A - I, B -II , C - III, D - IV
2. A - II, B -IV , C - I, D - III
3. A -IV , B - II, C - I, D - III
4. A - III, B - IV, C - II, D -I

Options :

86435124535. 1
86435124536. 2
86435124537. 3
86435124538. 4

Question Number : 93 Question Id : 8643518022 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Carcinogens that have the capacity to induce cancer without a previous metabolic activation are

1. Ultimate carcinogens
2. Procarcinogens
3. Co-carcinogen
4. Acarcinogen

Options :

- 86435124539. 1
- 86435124540. 2
- 86435124541. 3
- 86435124542. 4

Question Number : 94 Question Id : 8643518023 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
Cancer type	Tissue involved
A. Carcinoma	I. Cancer of bone marrow
B. Lymphoma	II. Cancer of connective tissue
C. Myeloma	III. Cancer of immune system
D. Sarcoma	IV. Cancer of epithelial cells

Choose the **correct** answer from the options given below:

- 1. A - IV, B - III, C - II, D - I
- 2. A -IV , B - III, C -I , D - II
- 3. A - I, B - II, C - III, D - IV
- 4. A -II , B -III , C - IV, D -I

Options :

- 86435124543. 1
- 86435124544. 2
- 86435124545. 3
- 86435124546. 4

Question Number : 95 Question Id : 8643518024 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What are indirectly ionizing radiations?

1. Particles without electric charges
2. Particles with electric charges
3. Electromagnetic rays with low penetration
4. Electromagnetic rays with high penetration

Options :

86435124547. 1

86435124548. 2

86435124549. 3

86435124550. 4

Question Number : 96 Question Id : 8643518025 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the correct order of adhesion force in epithelial cells.

1. Adherens junction>tight junction>gap junction
2. Tight junction> gap junction> adherens junction
3. Gap junction>tight junction> adherens junction
4. Adherens junction> gap junction> tight junction

Options :

86435124551. 1

86435124552. 2

86435124553. 3

86435124554. 4

Question Number : 97 Question Id : 8643518026 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is the main activity of $G_{i\alpha}$ of G protein?

1. Stimulates the activity of phospholipase C
2. Inhibits the activity of adenylyl cyclase
3. Stimulates the activity of adenylyl cyclase
4. Has no specific function

Options :

86435124555. 1

86435124556. 2

86435124557. 3

86435124558. 4

Question Number : 98 Question Id : 8643518027 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not an event in metastasis?

1. Detachment of the tumour cells by down regulation of E-Cadherins
2. Attachment of tumour cells to matrix components mediated by receptors
3. Migration of tumour cells to the circulatory system
4. Lysis of tumour cell

Options :

86435124559. 1

86435124560. 2

86435124561. 3

86435124562. 4

Question Number : 99 Question Id : 8643518028 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In tumour cells, which of the following activities of genes is predominant?

1. Oncogene is activated and tumour suppressor genes is inactivated
2. Oncogene is inactivated and tumour suppressor genes is activated
3. Both oncogene and tumour suppressor genes are inactivated
4. Both oncogene and tumour suppressor genes are activated

Options :

86435124563. 1

86435124564. 2

86435124565. 3

86435124566. 4

Question Number : 100 Question Id : 8643518029 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a tumour suppressor gene that is known as the guardian of the genome?

1. Retinoblastoma
2. TP53
3. Neurofibromin-2
4. Phosphatase and tensin homolog gene

Options :

86435124567. 1

86435124568. 2

86435124569. 3

86435124570. 4