National Testing Agency

Question Paper Name :	PGQP22 24th Sep 2021 Shift 2
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PGQP22

Group Number :	1
Group Id :	864351342
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	400
Is this Group for Examiner? :	No

PART A - General

Section Id :	8643511228
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory

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Number of Questions :	25
Number of Questions to be attempted :	25
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511461
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 86435129930 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the correct option :

You may feel relieved when something bad _____.

1. happens
2. does not happen
3. is remembered
4. occurs

Options :

864351104171. 1

864351104172. 2

864351104173. 3

864351104174. 4

Question Number : 2 Question Id : 86435129931 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Select the most suitable synonym :

BARBARIAN

1. impolite
2. unkind
3. uncivilized
4. unlikeness

Options :

864351104175. 1

864351104176. 2

864351104177. 3

864351104178. 4

Question Number : 3 Question Id : 86435129932 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which is the closest meaning of the phrase ***to be hard of hearing*** ?

1. deaf
2. deaf and dumb
3. careless
4. arrogant

Options :

864351104179. 1

864351104180. 2

864351104181. 3

864351104182. 4

Question Number : 4 Question Id : 86435129933 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Identify the meaning of the idiom from the options given :

In black and white

1. useless
2. in short
3. in writing
4. in full swing

Options :

864351104183. 1

864351104184. 2

864351104185. 3

864351104186. 4

Question Number : 5 Question Id : 86435129934 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the most suitable antonym :

RAPTURE

1. despair
2. elation
3. ecstasy
4. hell

Options :

864351104187. 1

864351104188. 2

864351104189. 3

864351104190. 4

Question Number : 6 Question Id : 86435129935 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Complete the second sentence by selecting the appropriate option :

One way to improve your health is to eat more fruit and vegetables.
Alternatively _____ .

1. you could fall ill
2. you could go on diet
3. you could exercise more
4. you could increase risk of your heart disease

Options :

864351104191. 1

864351104192. 2

864351104193. 3

864351104194. 4

Question Number : 7 Question Id : 86435129936 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fill in the blank with right word :

An employee might be given a privilege as a form of _____.

1. punishment
2. reward
3. increment
4. commendation

Options :

864351104195. 1

864351104196. 2

864351104197. 3

864351104198. 4

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Question Number : 8 Question Id : 86435129937 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the correct option for use of 'the' :

1. the Delhi
2. the city of Delhi
3. the southern India
4. the long island

Options :

864351104199. 1

864351104200. 2

864351104201. 3

864351104202. 4

Question Number : 9 Question Id : 86435129938 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fill in the blank with correct preposition :

I am worried _____ exam.

1. on
2. in
3. about
4. of

Options :

864351104203. 1

864351104204. 2

864351104205. 3

864351104206. 4

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Question Number : 10 Question Id : 86435129939 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Identify the meaning of the idiom from the options given :

Hit the road

1. end the journey
2. an accident
3. begin the journey
4. happy times

Options :

864351104207. 1

864351104208. 2

864351104209. 3

864351104210. 4

Question Number : 11 Question Id : 86435129940 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What will come in place of the question mark (?) in the expression?

$4003 \times 77 - 21015 = ? \times 116$

1. 2467
2. 2476
3. 2477
4. 2478

Options :

864351104211. 1

864351104212. 2

864351104213. 3

864351104214. 4

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Question Number : 12 Question Id : 86435129941 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R :

Assertion A : For making statues, we are using bronze.

Reason R : Through the mixing of copper and tin, we produce bronze.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

864351104215. 1

864351104216. 2

864351104217. 3

864351104218. 4

Question Number : 13 Question Id : 86435129942 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The sum of five numbers is 260. The average of the first two numbers is 30 and the average of the last two numbers is 70. What is the third number?

1. 40
2. 50
3. 55
4. 60

Options :

864351104219. 1

864351104220. 2

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864351104221. 3

864351104222. 4

Question Number : 14 Question Id : 86435129943 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Thirty-six workers can finish a piece of work in 14 days. If the work is to be completed in 8 days, how many extra workers are required?

1. 20
2. 23
3. 27
4. 29

Options :

864351104223. 1

864351104224. 2

864351104225. 3

864351104226. 4

Question Number : 15 Question Id : 86435129944 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What should come in the blank space in the following number series?

0, 2, _____, 18, 32, 50

1. 5
2. 6
3. 7
4. 8

Options :

864351104227. 1

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864351104228. 2

864351104229. 3

864351104230. 4

Question Number : 16 Question Id : 86435129945 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Three of the following four are alike in certain way based on the English alphabetical series and so form a group. Which is the one that does not belong to that group?

1. WXST
2. HCDE
3. QRMN
4. IJEF

Options :

864351104231. 1

864351104232. 2

864351104233. 3

864351104234. 4

Question Number : 17 Question Id : 86435129946 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If every alternate Saturdays and all Sundays are holidays in a 30 days month beginning on Saturday, then how many working days are there in that month?

1. 21
2. 22
3. 23
4. 24

Options :

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864351104235. 1

864351104236. 2

864351104237. 3

864351104238. 4

Question Number : 18 Question Id : 86435129947 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Pointing to a woman in the photograph, Neetu said, "Her son's father is the son-in-law of my mother". How is Neetu related to the woman?

1. Mother
2. Sister
3. Aunt
4. Mother-in-law

Options :

864351104239. 1

864351104240. 2

864351104241. 3

864351104242. 4

Question Number : 19 Question Id : 86435129948 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Suneeta travelled 5 km towards east direction. She turned right and went for 3 km. Then she turned west and travelled for 1 km. How far is she from the starting point?

1. 3 km
2. 5 km
3. 9 km
4. 10 km

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Options :

864351104243. 1

864351104244. 2

864351104245. 3

864351104246. 4

Question Number : 20 Question Id : 86435129949 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a certain code, TEMPORAL is written as OLDSMBSP. How is CONSIDER written in that code?

1. RMNBSFEJ
2. BNMRSFEJ
3. RMNBJEFS
4. TOPDQDCH

Options :

864351104247. 1

864351104248. 2

864351104249. 3

864351104250. 4

Question Number : 21 Question Id : 86435129950 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Whose creations are *Harshacharita and Kadambari*?

1. Kalhana
2. Panini
3. Banabhatta
4. Patanjali

Options :

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864351104251. 1

864351104252. 2

864351104253. 3

864351104254. 4

Question Number : 22 Question Id : 86435129951 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Present-day Istanbul in Turkey was earlier known as

1. Ankara
2. Ottoman
3. Constantinople
4. Byzantine

Options :

864351104255. 1

864351104256. 2

864351104257. 3

864351104258. 4

Question Number : 23 Question Id : 86435129952 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Space X is

1. an Indian autogiant
2. a movie on space
3. name of a spy agency
4. an American private space company

Options :

864351104259. 1

864351104260. 2

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864351104261. 3

864351104262. 4

Question Number : 24 Question Id : 86435129953 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

UN day is celebrated on

1. 26th November
2. 24th November
3. 26th October
4. 24th October

Options :

864351104263. 1

864351104264. 2

864351104265. 3

864351104266. 4

Question Number : 25 Question Id : 86435129954 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The famous novel, *Middlemarch* was written by

1. George Eliot
2. William Wordsworth
3. William Shakespeare
4. Ruskin Bond

Options :

864351104267. 1

864351104268. 2

864351104269. 3

864351104270. 4

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PART B - LIFE SCIENCES

Section Id :	8643511229
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	75
Number of Questions to be attempted :	75
Section Marks :	300
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511462
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 86435129955 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following Electronic transitions is not possible in UV-visible region?

1. $n\text{-}\pi^*$
2. $\sigma\text{-}\sigma^*$
3. $\pi\text{-}\pi^*$
4. None of these

Options :

864351104271. 1

864351104272. 2

864351104273. 3

864351104274. 4

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Question Number : 27 Question Id : 86435129956 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Resolving power of a microscope mainly depends on

1. Numerical aperture
2. Refractive index
3. Objective lens
4. Ocular lens

Options :

864351104275. 1

864351104276. 2

864351104277. 3

864351104278. 4

Question Number : 28 Question Id : 86435129957 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not true according to Kasha's rule about fluorescence?

1. Bathochromic shift is observed in emission relative to absorption
2. Hypsochromic shift is observed in absorption relative to emission
3. Bathochromic shift is observed in absorption relative to emission
4. None of these

Options :

864351104279. 1

864351104280. 2

864351104281. 3

864351104282. 4

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Question Number : 29 Question Id : 86435129958 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In reverse-phase liquid chromatography, stationary phase is

1. Polar
2. Non-polar
3. Hydrophilic
4. Ionic

Options :

864351104283. 1

864351104284. 2

864351104285. 3

864351104286. 4

Question Number : 30 Question Id : 86435129959 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Diethylaminomethyl (DEAE) cellulose is an anion exchanger. It will prefer to bind with proteins having

1. No charge
2. Positive charge
3. Negative charge
4. Binding does not related to charge

Options :

864351104287. 1

864351104288. 2

864351104289. 3

864351104290. 4

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Question Number : 31 Question Id : 86435129960 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Increase in the half-cell potential ($E°$)

1. Decreases the oxidizing ability
2. Increases the reducing ability
3. Increases the oxidizing ability
4. Increases the reaction spontaneity

Options :

864351104291. 1

864351104292. 2

864351104293. 3

864351104294. 4

Question Number : 32 Question Id : 86435129961 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Lowest yield of ATP is achieved in

1. Fermentation
2. Anaerobic respiration
3. Aerobic respiration
4. Both 1 and 2

Options :

864351104295. 1

864351104296. 2

864351104297. 3

864351104298. 4

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Question Number : 33 Question Id : 86435129962 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is a molecular motor?

1. Kinesin
2. Kinetin
3. Keratin
4. Dynactin

Options :

864351104299. 1

864351104300. 2

864351104301. 3

864351104302. 4

Question Number : 34 Question Id : 86435129963 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The key driving force for membrane transport is

1. Membrane thickness
2. Distance
3. Molecular size
4. Concentration gradient

Options :

864351104303. 1

864351104304. 2

864351104305. 3

864351104306. 4

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Question Number : 35 Question Id : 86435129964 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Sedimentation rate of a particle will be zero when

1. Density of the particle is less than surrounding medium
2. Density of the particle is more than the surrounding medium
3. Density of the particle and the surrounding medium are equal
4. Density of the particle is twice as the surrounding medium

Options :

864351104307. 1

864351104308. 2

864351104309. 3

864351104310. 4

Question Number : 36 Question Id : 86435129965 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

70s ribosome is made up of

1. 50s and 30s subunits
2. 50s and 40s subunits
3. 60s and 30s subunits
4. 60s and 40s subunits

Options :

864351104311. 1

864351104312. 2

864351104313. 3

864351104314. 4

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Question Number : 37 Question Id : 86435129966 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For each ATP molecule breakdown, the Sodium-potassium pump causes movement of

1. More Na^+ out and less K^+ in
2. K^+ out and Na^+ in on a one-for-one basis
3. Na^+ out and K^+ in on a one-for-one basis
4. K^+ and Na^+ in same direction

Options :

864351104315. 1

864351104316. 2

864351104317. 3

864351104318. 4

Question Number : 38 Question Id : 86435129967 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The number of a Nuclear pore in a cell depends on the

1. Size of the cell
2. Transcriptional activity of the cell
3. DNA content of the cell
4. None of these

Options :

864351104319. 1

864351104320. 2

864351104321. 3

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864351104322. 4

Question Number : 39 Question Id : 86435129968 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a part of endomembrane system?

1. Golgi body
2. Lysosome
3. Ribosome
4. Vesicles

Options :

864351104323. 1

864351104324. 2

864351104325. 3

864351104326. 4

Question Number : 40 Question Id : 86435129969 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Michaelis-Menten constant (K_m) is related to the

1. Enzyme's affinity for the substrate
2. Enzyme's activity for the substrate
3. Enzyme's specificity for the substrate
4. Enzyme's selectivity for the substrate

Options :

864351104327. 1

864351104328. 2

864351104329. 3

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864351104330. 4

Question Number : 41 Question Id : 86435129970 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The organelle absent in plant cells is

1. Vacuoles
2. Lysosome
3. Chloroplast
4. Centriole

Options :

864351104331. 1

864351104332. 2

864351104333. 3

864351104334. 4

Question Number : 42 Question Id : 86435129971 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not associated with the extracellular matrix of the cells?

1. Proteoglycans
2. Cellulose
3. Collagen
4. Fibronectin

Options :

864351104335. 1

864351104336. 2

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864351104337. 3

864351104338. 4

Question Number : 43 Question Id : 86435129972 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The enzyme responsible for removal of DNA supercoils is

1. Helicase
2. Topoisomerase
3. DNA ligase
4. DNA polymerase

Options :

864351104339. 1

864351104340. 2

864351104341. 3

864351104342. 4

Question Number : 44 Question Id : 86435129973 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a secondary messenger?

1. Calcium
2. Diacylglycerol
3. cAMP
4. AMP

Options :

864351104343. 1

864351104344. 2

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864351104345. 3

864351104346. 4

Question Number : 45 Question Id : 86435129974 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Intramolecular rearrangements are catalyzed by

1. Transferases
2. Oxidoreductases
3. Isomerases
4. Lyases

Options :

864351104347. 1

864351104348. 2

864351104349. 3

864351104350. 4

Question Number : 46 Question Id : 86435129975 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

An enzyme without its required cofactor prosthetic group is referred as

1. Coenzyme
2. Holoenzyme
3. Apoenzyme
4. Catalyst

Options :

864351104351. 1

864351104352. 2

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864351104353. 3

864351104354. 4

Question Number : 47 Question Id : 86435129976 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Gram staining is based on the presence of _____ in the cell wall.

1. Phospholipid
2. Peptidoglycan
3. Lipid A
4. Glycolipid

Options :

864351104355. 1

864351104356. 2

864351104357. 3

864351104358. 4

Question Number : 48 Question Id : 86435129977 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Lipopolysaccharide present in Gram negative bacterial cell wall is considered as an endotoxin because of

1. Lipid A
2. Core polysaccharide
3. O side chain
4. Integral proteins

Options :

864351104359. 1

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864351104360. 2

864351104361. 3

864351104362. 4

Question Number : 49 Question Id : 86435129978 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Antibacterial action of penicillin could be attributed to

1. Inhibition of the enzyme transpeptidase
2. Inhibition of the cross linking of peptidoglycan side chain
3. Hydrolysis of peptidoglycan
4. Both 1 and 2

Options :

864351104363. 1

864351104364. 2

864351104365. 3

864351104366. 4

Question Number : 50 Question Id : 86435129979 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) is caused by a

1. Single-stranded RNA virus
2. Double-stranded RNA virus
3. Single-stranded DNA virus
4. Double-stranded DNA virus

Options :

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864351104367. 1

864351104368. 2

864351104369. 3

864351104370. 4

Question Number : 51 Question Id : 86435129980 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For exergonic reactions

1. $\Delta G^{o'}$ (standard free energy change) is negative and K_{eq} (equilibrium constant) is more than one
2. $\Delta G^{o'}$ is positive and K_{eq} is more than one
3. $\Delta G^{o'}$ is negative and K_{eq} is less than one
4. $\Delta G^{o'}$ is positive and K_{eq} is less than one

Options :

864351104371. 1

864351104372. 2

864351104373. 3

864351104374. 4

Question Number : 52 Question Id : 86435129981 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

2-keto-3-deoxy-6-phosphogluconate is an intermediate of

1. Pentose phosphate pathway
2. Entner-Doudoroff Pathway
3. Embden-Meyerhof Pathway
4. Tricarboxylic acid cycle

Options :

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864351104375. 1

864351104376. 2

864351104377. 3

864351104378. 4

Question Number : 53 Question Id : 86435129982 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Product of dissimilatory nitrate reduction is

1. ammonia
2. nitrogen
3. nitrate
4. nitric oxide

Options :

864351104379. 1

864351104380. 2

864351104381. 3

864351104382. 4

Question Number : 54 Question Id : 86435129983 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a type of microtubule associated with mitotic spindle?

1. Polar
2. Astral
3. Central
4. Kinetochore

Options :

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864351104383. 1

864351104384. 2

864351104385. 3

864351104386. 4

Question Number : 55 Question Id : 86435129984 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the following is the correct sequence of prophase-I stage?

1. Leptotene, Pachytene, Zygotene, Diplotene, Diakinesis
2. Leptotene, Zygotene, Pachytene, Diakinesis, Diplotene
3. Zygotene, Leptotene, Pachytene, Diplotene, Diakinesis
4. Leptotene, Zygotene, Pachytene, Diplotene, Diakinesis

Options :

864351104387. 1

864351104388. 2

864351104389. 3

864351104390. 4

Question Number : 56 Question Id : 86435129985 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Histones are rich in

1. Lysine and Arginine
2. Lysine and Asparagine
3. Glycine and Lysine
4. Leucine and Arginine

Options :

864351104391. 1

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864351104392. 2

864351104393. 3

864351104394. 4

Question Number : 57 Question Id : 86435129986 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not true for euchromatin?

1. They are transcriptionally active
2. They are less condensed regions of chromosomes
3. Barr body is an example of euchromatin
4. All of these

Options :

864351104395. 1

864351104396. 2

864351104397. 3

864351104398. 4

Question Number : 58 Question Id : 86435129987 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Proteins responsible for structural maintenance of chromosomes are

1. Condensin
2. Cohesin
3. Collagen
4. Both 1 and 2

Options :

864351104399. 1

864351104400. 2

864351104401. 3

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864351104402. 4

Question Number : 59 Question Id : 86435129988 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Activity of protein kinase A is regulated by

1. Adenylyl cyclase
2. Phosphodiesterase
3. Phospholipase C
4. Phosphorylase kinase

Options :

864351104403. 1

864351104404. 2

864351104405. 3

864351104406. 4

Question Number : 60 Question Id : 86435129989 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Pectin is a polymer of

1. Glucose
2. Glucuronic acid
3. Galacturonic acid
4. Iduronic acid

Options :

864351104407. 1

864351104408. 2

864351104409. 3

864351104410. 4

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Question Number : 61 Question Id : 86435129990 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Triple-helical coiled coil structure is characteristic of

1. Cellulose
2. Collagen
3. Elastin
4. Chymotrypsin

Options :

864351104411. 1

864351104412. 2

864351104413. 3

864351104414. 4

Question Number : 62 Question Id : 86435129991 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not true for sliding filament model?

1. Shortening of I-band and H-zone with no effect on A-band
2. Shortening of I-band, A-band and H-zone
3. No change in I-band and H-zone with shortening of A-band
4. Shortening of I-band and A-band with no effect on H-zone

Options :

864351104415. 1

864351104416. 2

864351104417. 3

864351104418. 4

Question Number : 63 Question Id : 86435129992 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Which of the following proteins is associated with amphibian development?

1. Collagen
2. Catenin
3. Fibrin
4. Keratin

Options :

864351104419. 1

864351104420. 2

864351104421. 3

864351104422. 4

Question Number : 64 Question Id : 86435129993 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a pattern of cell movement during gastrulation?

1. Ingression
2. Epiboly
3. Invasion
4. Invagination

Options :

864351104423. 1

864351104424. 2

864351104425. 3

864351104426. 4

Question Number : 65 Question Id : 86435129994 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Amphibian eggs undergo

1. Equal radial holoblastic cleavage
2. Unequal radial holoblastic cleavage
3. Equal radial meroblastic cleavage
4. Unequal radial meroblastic cleavage

Options :

864351104427. 1

864351104428. 2

864351104429. 3

864351104430. 4

Question Number : 66 Question Id : 86435129995 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not true for master regulatory transcription factors?

1. Must be expressed when the specification of a cell type begins
2. Must regulate the expression of genes specific to that cell type
3. Must be able to redirect a cell's fate to this cell type
4. Must be expressed when the specification of a cell type ends

Options :

864351104431. 1

864351104432. 2

864351104433. 3

864351104434. 4

Question Number : 67 Question Id : 86435129996 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Difference between chromatin regulation by high and low CpG promoters is

1. High CpG content promoters repressed gene by DNA methylation
2. Low CpG content promoters repressed gene by histone methylation
3. High CpG content promoters repressed gene by histone methylation
4. Low CpG content promoters repressed gene by histone acetylation

Options :

864351104435. 1

864351104436. 2

864351104437. 3

864351104438. 4

Question Number : 68 Question Id : 86435129997 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

NRSE stands for

1. Notochord restrictive silencer element
2. Neural ectodermal specification enhancer
3. Neural restrictive specification enhancer
4. Neuron-restrictive silencer elements

Options :

864351104439. 1

864351104440. 2

864351104441. 3

864351104442. 4

Question Number : 69 Question Id : 86435129998 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Which substance determines the type of cleavage during development?

1. Nucleus
2. Cytoplasm
3. Yolk
4. Both 1 and 2

Options :

864351104443. 1

864351104444. 2

864351104445. 3

864351104446. 4

Question Number : 70 Question Id : 86435129999 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following are not true for Karl Ernst von Baer's principles?

A. General features of a large group of animals appear earlier in development as compared to the specialized features of a smaller group

B. General features of a large group of animals appear later in development as compared to the specialized features of a smaller group

C. Early embryo of a higher animal is look like a lower animal

D. Early embryo of a higher animal is look like embryo of a lower animal

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

Options :

864351104447. 1

864351104448. 2

864351104449. 3

864351104450. 4

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Question Number : 71 Question Id : 86435130000 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Enzymes involved in RNA interference are

1. Dicer
2. Cohesin
3. Bicoid
4. Maskin

Options :

864351104451. 1

864351104452. 2

864351104453. 3

864351104454. 4

Question Number : 72 Question Id : 86435130001 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

CRISPR is

1. Clustered Regularly Interspaced Short Palindromic Repeats
2. Coordinated Regularly Interspaced Short Palindromic Repeats
3. Clustered Restrictive Interspaced Short Palindromic Regions
4. Coordinated Restrictive Interspaced Short Palindromic Repeats

Options :

864351104455. 1

864351104456. 2

864351104457. 3

864351104458. 4

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Question Number : 73 Question Id : 86435130002 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Ramachandran plot is

1. Used for determination of stable protein structures
2. Also called as ϕ-Ψ plot
3. Provide information about sterically favorable conformations
4. All of these

Options :

864351104459. 1

864351104460. 2

864351104461. 3

864351104462. 4

Question Number : 74 Question Id : 86435130003 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Dextrans are

1. Polymeric glucose
2. Polymeric galactose
3. Polymeric fructose
4. Polymeric lactose

Options :

864351104463. 1

864351104464. 2

864351104465. 3

864351104466. 4

Question Number : 75 Question Id : 86435130004 Question Type : MCQ Option Shuffling : No

ZOLLEGE.in

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

According to Bohr effect the oxygen transport ability of hemoglobin is more when

1. pH decreases
2. pH increases
3. pH remains stable
4. It is not affected by pH

Options :

864351104467. 1

864351104468. 2

864351104469. 3

864351104470. 4

Question Number : 76 Question Id : 86435130005 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Cells are small in size because

1. It provides more surface area to volume ratio
2. It provides less surface area to volume ratio
3. Provides better regulation of cytoplasm by nucleus
4. Both 1 and 2

Options :

864351104471. 1

864351104472. 2

864351104473. 3

864351104474. 4

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Question Number : 77 Question Id : 86435130006 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Protein purification in 2-dimentional gel electrophoresis is based on

1. Molecular weight
2. Charge
3. Number of subunits
4. Both 1 and 2

Options :

864351104475. 1

864351104476. 2

864351104477. 3

864351104478. 4

Question Number : 78 Question Id : 86435130007 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

_____ enzyme catalyzes conversion of fructose to fructose-6-phosphate requires _____ as cofactor.

1. Phosphofructokinase-I, Mg^{+2}
2. Phosphofructokinase-II, Mg^{+2}
3. Phosphofructokinase-I, Mn^{+2}
4. Phosphofructokinase-II, Mn^{+2}

Options :

864351104479. 1

864351104480. 2

864351104481. 3

864351104482. 4

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Question Number : 79 Question Id : 86435130008 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a possible catabolic fate of pyruvate?

1. Lactic acid fermentation
2. Citric acid cycle
3. Ethanol fermentation
4. Glycolysis

Options :

864351104483. 1

864351104484. 2

864351104485. 3

864351104486. 4

Question Number : 80 Question Id : 86435130009 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Allosterically regulated enzymes are

1. Oligomeric proteins
2. Possess regulatory and catalytic domains
3. Shows sigmoidal behavior
4. Both 2 and 3

Options :

864351104487. 1

864351104488. 2

864351104489. 3

864351104490. 4

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Question Number : 81 Question Id : 86435130010 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following regulation occurs in slowest time frame?

1. Feedback regulation
2. Allosteric regulation
3. Regulation through covalent modification
4. Enzyme synthesis through gene induction

Options :

864351104491. 1

864351104492. 2

864351104493. 3

864351104494. 4

Question Number : 82 Question Id : 86435130011 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The unit of maximum specific growth rate (μ_{max}) is

1. $Hours^{-1}$
2. Hours
3. Hours/litre
4. Hours/cell

Options :

864351104495. 1

864351104496. 2

864351104497. 3

864351104498. 4

Question Number : 83 Question Id : 86435130012 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Mammals do not have ability to convert fatty acids to glucose because

1. They cannot undergo glyoxylate cycle
2. There is no need for such conversion
3. They can obtain glucose from other pathways
4. Both 1 and 3

Options :

864351104499. 1

864351104500. 2

864351104501. 3

864351104502. 4

Question Number : 84 Question Id : 86435130013 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Formation of glycogen cannot be initiated in the absence of enzyme

1. Glucokinase
2. Glycogenin
3. Glycogen phosphorylase
4. Glycogen kinase

Options :

864351104503. 1

864351104504. 2

864351104505. 3

864351104506. 4

Question Number : 85 Question Id : 86435130014 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Glucose sensors utilizes _____ as bioreceptor.

1. Glucose oxidase
2. Glucose kinase
3. Glucose dehydrogenase
4. Both 1 and 3

Options :

864351104507. 1

864351104508. 2

864351104509. 3

864351104510. 4

Question Number : 86 Question Id : 86435130015 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Optical density is based on

1. Light refraction
2. Light adsorption
3. Light diffraction
4. Light scattering

Options :

864351104511. 1

864351104512. 2

864351104513. 3

864351104514. 4

Question Number : 87 Question Id : 86435130016 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Purity of DNA samples can be checked by measuring the ratio of absorbances at 260 and 280 nm. For a pure DNA sample the ratio should be

1. 1.8
2. < 1.8
3. <1.0
4. >2

Options :

864351104515. 1

864351104516. 2

864351104517. 3

864351104518. 4

Question Number : 88 Question Id : 86435130017 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ATP molecules produced by oxidation of one molecule of palmitoyl-CoA to CO_2 and H_2O are

1. 38
2. 108
3. 148
4. 40

Options :

864351104519. 1

864351104520. 2

864351104521. 3

864351104522. 4

Question Number : 89 Question Id : 86435130018 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Carbamoyl phosphate synthetase I (first enzyme in urea cycle) is allosterically regulated by

1. N-acetylglutamate
2. N-acetylglucosamine
3. N-acetylgalactosamine
4. N-acetylglucomate

Options :

864351104523. 1

864351104524. 2

864351104525. 3

864351104526. 4

Question Number : 90 Question Id : 86435130019 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Phenylketonuria is caused by dysfunction of

1. Phenylalanine hydroxylase
2. Phenylalanine monooxygenase
3. Phenylalanine mutase
4. Phenylalanine dioxygenase

Options :

864351104527. 1

864351104528. 2

864351104529. 3

864351104530. 4

Question Number : 91 Question Id : 86435130020 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Key protein involved in complement activation is

1. C5
2. C8
3. C9
4. C3

Options :

864351104531. 1

864351104532. 2

864351104533. 3

864351104534. 4

Question Number : 92 Question Id : 86435130021 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Separation of components in gas chromatography is based on

1. Molecular weight
2. Partition coefficient
3. Molarity
4. Conductivity

Options :

864351104535. 1

864351104536. 2

864351104537. 3

864351104538. 4

Question Number : 93 Question Id : 86435130022 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Pervaporation is

1. Ion removal
2. Separation of liquids
3. Separation of solids
4. Water purification

Options :

864351104539. 1

864351104540. 2

864351104541. 3

864351104542. 4

Question Number : 94 Question Id : 86435130023 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Obligate anaerobes are not able to survive in the presence of oxygen because of

1. Absence of both catalase and superoxide dismutase
2. Presence of both catalase and superoxide dismutase
3. Presence of catalase but absence of superoxide dismutase
4. Presence of low levels of both catalase and superoxide dismutase

Options :

864351104543. 1

864351104544. 2

864351104545. 3

864351104546. 4

Question Number : 95 Question Id : 86435130024 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following sentences is not true for pyrosequencing?

1. It is based on detection of pulses of chemiluminescence
2. Requires the activity of enzyme sulfurylase
3. Requires addition of dideoxynucleotides
4. None of these

Options :

864351104547. 1

864351104548. 2

864351104549. 3

864351104550. 4

Question Number : 96 Question Id : 86435130025 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match the LIST–I with LIST–II :

	List–I		**List–II**
A.	Translation	I.	Nucleus
B.	Replication	II.	Mitochondria
C.	ATP synthesis	III.	Stroma
D.	Dark reaction of photosynthesis	IV.	Cytoplasm

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

Options :

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864351104551. 1

864351104552. 2

864351104553. 3

864351104554. 4

Question Number : 97 Question Id : 86435130026 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

impermeability of mitochondrial inner membrane to most ion, electrons and protons is due to the presence of

1. Cardiolipin
2. Collagen
3. Chitin
4. Cellulose

Options :

864351104555. 1

864351104556. 2

864351104557. 3

864351104558. 4

Question Number : 98 Question Id : 86435130027 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Lateral root primordia are developed from

1. Pericycle
2. Endodermis
3. Ectodermis
4. Xylem

Options :

ZOLLEGE.in

864351104559. 1

864351104560. 2

864351104561. 3

864351104562. 4

Question Number : 99 Question Id : 86435130028 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Agrobacterium tumefaciens is used for transformation in plant tissue culture because

1. Both *Agrobacterium* and plants have similar genetic make-up
2. *Agrobacterium* genomic DNA can transfer its genetic material to plants
3. *vir* genes of *Agrobacterium* aid in T-DNA transfer to plants
4. All of these

Options :

864351104563. 1

864351104564. 2

864351104565. 3

864351104566. 4

Question Number : 100 Question Id : 86435130029 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Mutation in the class A genes in ABCDE model of flower development leads to which pattern of floral organization?

1. Sepal-sepal-carpel-petal
2. Petal-carpel-sepal-sepal
3. Carpel-stamen-stamen-carpel
4. Stamen-petal-petal-sepal

Options :

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864351104567. 1

864351104568. 2

864351104569. 3

864351104570. 4

ZOLLEGE.in