

# 1.4 Cells: Division

# **Question Paper**

Course	DP IB Biology
Section	1. Cell Biology
Topic	1.4 Cells: Division
Difficulty	Easy

Time allowed: 10

Score: /5

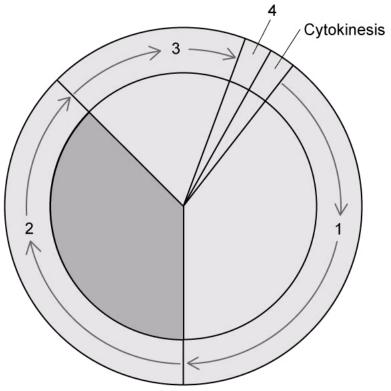
Percentage: /100



 $Head to \underline{savemyexams.co.uk} for more a we some resources\\$ 

### Question 1

The diagram below shows the different phases of the cell cycle.



Which of the following rows correctly identifies the phases of the cell cycle?

	1	2	3	4
A.	Interphase: G <sub>1</sub>	Interphase: G <sub>2</sub>	Interphase: S	Nuclear division
B.	Mitosis	Interphase: G <sub>1</sub>	Interphase: S	Interphase: G <sub>2</sub>
C.	Interphase: G <sub>1</sub>	Interphase: S	Interphase: G <sub>2</sub>	Nuclear division
D.	Interphase: S	Interphase: G <sub>1</sub>	Interphase: G <sub>2</sub>	Mitosis

[1 mark]

### Question 2

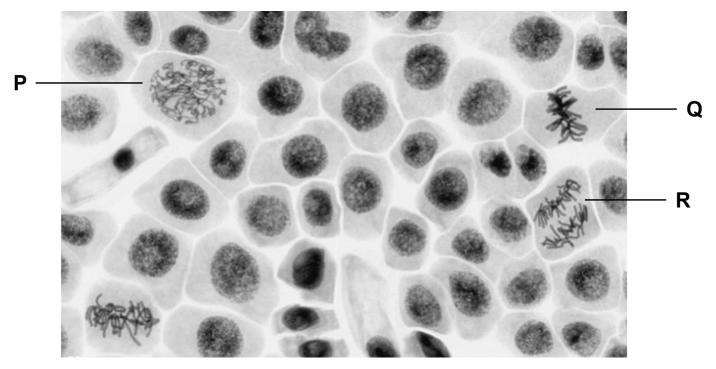
Which of the following processes involve mitosis?

- A. growth, repair, semi-conservative replication
- B. repair, growth, asexual reproduction
- C. reduction division, asexual reproduction, growth
- D. repair, reduction division, asexual reproduction

[1 mark]

### Question 3

The micrograph below show cells that are in various stages of the cell cycle.



 $Image\ courtesy\ of\ Doc.\ RNDr.\ Josef\ Reischig.\ Licensed\ under\ Creative\ Commons\ Attribution-Share\ Alike\ 3.0\ Unported\ license.\ Reused\ and\ distributed\ under\ conditions$   $found\ at:\ https://creative\ commons.\ org/licenses/by-sa/3.0/deed.en$ 

Which of the following correctly identifies the different stages of mitosis that each of the labelled cells are in?

	Р	Q	R
A.	Prophase	Metaphase	Anaphase
B.	Metaphase	Telophase	Anaphase
C.	Telophase	Metaphase	Anaphase
D.	Prophase	Anaphase	Metaphase

[1 mark]



Head to <u>savemy exams.co.uk</u> for more awe some resources

#### Question 4

Which of the following provides the best explanation of how cyclins were discovered?

- A. It was discovered when Robert Hooke researched how proteins drive the progress of the different phases of the cell cycle
- B. It was discovered accidentally when a group of German scientists studied the chromosomes of horse threadworms
- C. It was discovered when Matthias Schleiden and Theodor Schwann studied animal and plant cells under a microscope
- D. It was discovered by chance when Tim Hunt researched protein synthesis in sea urchin eggs

[1 mark]

#### Question 5

The following steps are involved in the formation of malignant tumours.

- 1. Tumour cells spread in blood and lymph
- 2. Rapid mitosis occur
- 3. Oncogenes arise due to exposure to carcinogens
- 4. The tumour increases in size
- 5. Tumour cells form secondary tumours throughout the body

Which would represent the correct order of the steps?

 $A.2 \rightarrow 4 \rightarrow 3 \rightarrow 1 \rightarrow 5$ 

 $B.3 \rightarrow 2 \rightarrow 4 \rightarrow 1 \rightarrow 5$ 

 $C.4 \rightarrow 2 \rightarrow 3 \rightarrow 1 \rightarrow 5$ 

 $D.3 \rightarrow 2 \rightarrow 1 \rightarrow 4 \rightarrow 5$ 

[1 mark]