

4.10 Consequences of Centrifugal and Centripetal Forces

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS centrifugal 离心力 • centripetal 向心力 • state 国家 • nation 民族
• devolution 权力下放

Objective

Build the skills to answer exam questions on **centrifugal** 离心力 and **centripetal forces** 向心力.

You must be able to:

- define **centripetal** 向心力 and **centrifugal** 离心力 forces
- give an example of each
- explain their effect on a state’s stability
- suggest how a government can strengthen unity

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ Centripetal forces

Centripetal forces pull a state together — a shared language, national identity, strong institutions, or a common goal.

■ Centrifugal forces

Centrifugal forces pull a state apart — deep ethnic, religious, or economic divisions, or unfair treatment of a region.

■ Effect and response

Strong centripetal forces bring stability; strong centrifugal forces bring instability or breakup. Governments strengthen unity with inclusive policies, shared symbols, and fair investment.

2 Practice

2.1 Define a centrifugal force and give one example. [2]

2.2 State one centripetal force and explain how it helps a state. [2]

2.3 A country has sharp regional inequality and separatist feeling.

(a) Which type of force is dominant? [1]

(b) State one policy to build a centripetal force instead. [1]

3 Exam-style questions

3.1 A shared national identity that unites a diverse population is a [1]

- A centrifugal force
- B centripetal force
- C relict boundary
- D push factor

3.2 Deep religious and language divisions that threaten to split a state are [1]

- A centripetal forces
- B centrifugal forces
- C supranational forces
- D geometric boundaries

3.3 A government wants to hold a divided country together.

(a) State one centripetal measure it could take.

[1]

(b) Explain how it counteracts centrifugal forces.

[1]

Solutions

2.1 a force that divides/destabilizes a state; e.g. deep ethnic, religious, or economic division.

2.2 a shared national language/identity; it unites people and strengthens loyalty to the state.

2.3 (a) centrifugal. (b) fairer investment across regions / inclusive national identity / devolution.

3.1 B. a unifying identity is a centripetal force.

3.2 B. divisions pulling a state apart are centrifugal forces.

3.3 (a) inclusive national symbols, shared official language, fair regional investment, or devolution. (b) it builds shared loyalty/fairness, weakening reasons to divide.