

PhD Physics Entrance Sample Test 2026

Rawalpindi Women University

The test will consist of 2 sections:

Part (a) (70%) Time Allotted: The First 60 Minutes

PHYSICS MCQs

Note: Each MCQ carries one mark and there is no negative marking.

Total MCQ Type Questions: 70

Part (b) (30%) Time allotted (75 Minutes) (After hand-over the MCQ part to the invigilator)

Physics Descriptive Questions:

There will be 2 – 3 questions related to BS/MS level physics which should be answered on a separate sheet provided to the applicant.

Sample MCQs Questions

1.	Electromagnetic radiation emitted from a nucleus is most likely to be in the form of			
	(a) gamma rays	(b) microwaves	(c) ultraviolet radiation	(d) visible light
2.	The binding energy per nucleon is greatest for which of the following nuclei?			
	(a) ${}^3_2\text{He}$	(b) ${}^4_2\text{He}$	(c) ${}^{56}_{26}\text{Fe}$	(d) ${}^{235}_{92}\text{U}$
3.	α particles are			
	(a) helium nuclei	(b) sodium nuclei	(c) ionized nuclei	(d) hydrogen nuclei
4.	Which of the following subshells is represented by the quantum numbers $n = 4$ and $\ell = 1$?			
	(a) 4s	(b) 4f	(c) 4d	(d) 4p
5.	The clarification of discrete energy levels in atom was first given experimentally by			
	(a) Thomson's experiment	(b) Millikan's oil drop experiment	(c) Frank-Hertz experiment	(d) Rutherford scattering experiment
6.	The unit of Planck's constant is equivalent to that of			
	(a) energy	(b) angular momentum	(c) velocity	(d) force
7.	With the increase in quantum number the energy difference between consecutive energy levels			
	(a) remains constant.	(b) decreases.	(c) increases.	(d) sometimes increases sometimes decreases.

8.	A photon of frequency f undergoes Compton scattering from an electron at rest and scatters through an angle θ . The frequency of scattered photon is f' then			
	(a) $f' > f$	(b) $f' = f$	(c) $f' < f$	(d) given information is incomplete.
9.	Which of the following is the correct formula for average velocity?			
	(a) $v = dx/dt$	(b) $v = x/t$	(c) $v = xt$	(d) $v = t/x$
10.	Which of the following is the mathematical representation of law of conservation of total linear momentum?			
	(a) $dP/dt = 0$	(b) $dF/dt = 0$	(c) $dP/dt = F$	(d) $dF/dt = P$
11.	Choose the correct statement:			
	(a) Milk is more cheap than water.	(b) Milk is cheaper than water.	(c) Milk is cheap than water.	(d) Milk is cheapest than water.
12.	Choose the correct question statement.			
	(a) Why are our trains so late compared by European trains?	(b) Why are our trains so late compared with European trains?	(c) Why are our trains so late compared on European trains?	(d) Why are our trains so late compared under European trains?
13.	Choose the correct statement.			
	(a) Her brother is an engineer.	(b) Her brother is a engineer.	(c) Her brother is the engineer.	(d) Her brother is engineer.
14.	Fill in the blanks : ____ more you concentrate, ____ better you become.			
	(a) the, a	(b) the, the	(c) a, a	(d) the, then
15.	Choose the correct statement.			
	(a) One must keep one's words.	(b) One must keep one's word.	(c) One must keep ones words.	(d) One must keep ones word.
16.	Choose the correct statement:			

	(a) The fire caused many damages.	(b) The fire caused much damage.	(c) The fire caused many damage.	(d) The fire caused much damages.
17.	If A represents the area and C represents the circumference of the circle, then A in terms of C is:			
	(a) $2\pi/C$	(b) $4\pi^2/C$	(c) $2\pi^2/C^2$	(d) $C^2/4\pi$
18.	12 is $1/3\%$ of which number?			
	(a) 4	(b) 400	(c) 36	(d) 3600
19.	If the length of the rectangle is increased by 16% and the width is decreased by 25% then the area			
	(a) Increases by 9%	(b) decreases by 41%	(c) decreases by 13%	(d) Increases by 59%
20.	If $a + b = 8$, $b + c = 9$ and $c + a = 11$, What is the average of a , b , and c ?			
	(a) $14/3$	(b) $28/3$	(c) $14/6$	(d) $7/3$