The term pV2/2 in the Bernoulli equation is named as

page 73

#### Choices:

hydrostatic pressure

total pressure

static pressure

dynamic pressure

correct

Which mathematician formulated and applied the bunyancy principle in history's first nondestructive test to determine the gold content of the crown of a king?

# page 4

Choices:

Galileo

Pascal

Aristotle

Archimedes

correct

(Marks: 1)

Question: 4

Question: 3 (Marks: 1)

By the Pascal's law the pressure applied to a confined fluid increases the pressure throughout by\_\_\_\_\_

pg#27

#### Choices

the larger amount

the same amount

#### correct

the shifting amount

the smalller amount

Question	2 (Marke 1)	
The solid t		vill if the density of a solid body is smaller
Cholces		
escillat	· ·	
suspens	d	
sink		
lloat	correct	

Question: 6 (Marks: 1) In fluids, stress is proportional to pg#1 Choices: strain strain rate correct displacement force

Question: 7 (Marks: 1)

The gas flows are assumed to be incompressible for Mach number \_\_\_\_

pg#75

### Choices:

< 0.3

correct

> 0.3

< 0.5

> 0.5

The fully developed flow in a circular pipe, in cylindrical coordinate system, is

pg#11

#### Choices:

one dimensional

correct

two dimensional

three dimensional

zero dimensional

Question: 9 (Marks: 1)

Any physical quantity can be characterized by

pg#14

Choices:

dimensions

correct

units

SI system

English units

Question: 11 (Marks: 1)

The correct relation for mass, density and volume is \_\_\_\_

(V=M/d) or (d=M/V)

Choices

density =mass + volume

density =mass - volume

density mass volume

correct

density =mass =volume

Question: 10 (Marks: 1)

A liquid is said to wet the surface when contact angle \_\_\_\_

pg#24

Choices:

correct

$$\phi = 90^{\circ}$$

for not wet

A liquid is said to wet the surface when contact angle \_\_\_

## Choices:

# correct

$$\phi = 90^{\circ}$$

$$\phi = 00$$

Question: 9 (Marks: 1) Any physical quantity can be characterized by Choices: dimensions correct units Si system English units

#### Question: 13 (Marks: 1)

Flow visualization is useful not only in physical experiments but also in \_\_\_\_ as well

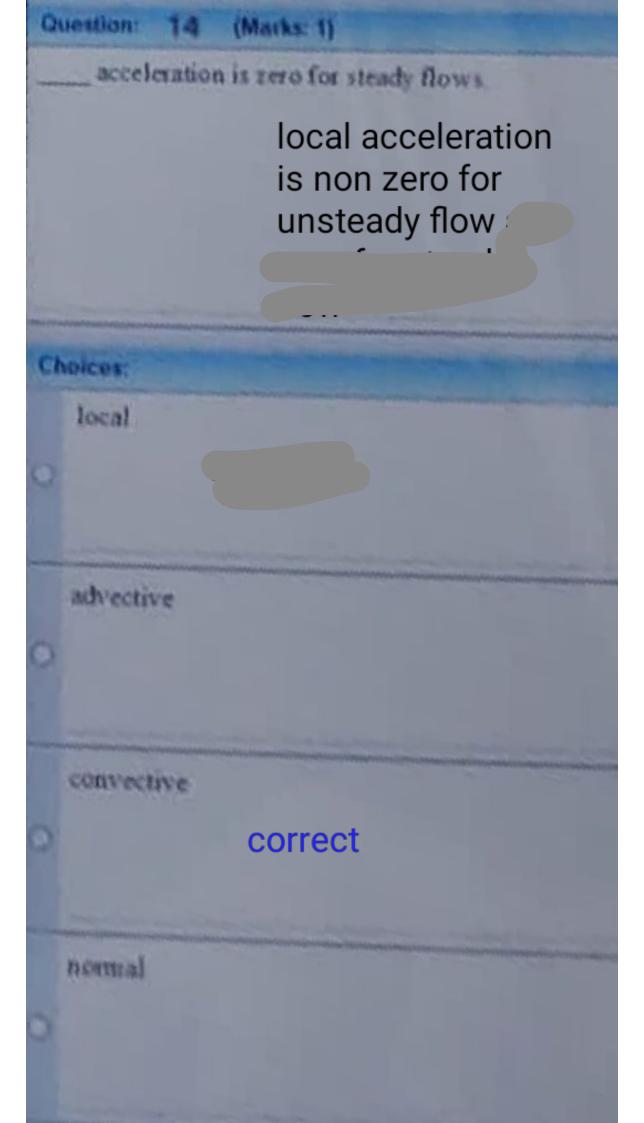
pg#34

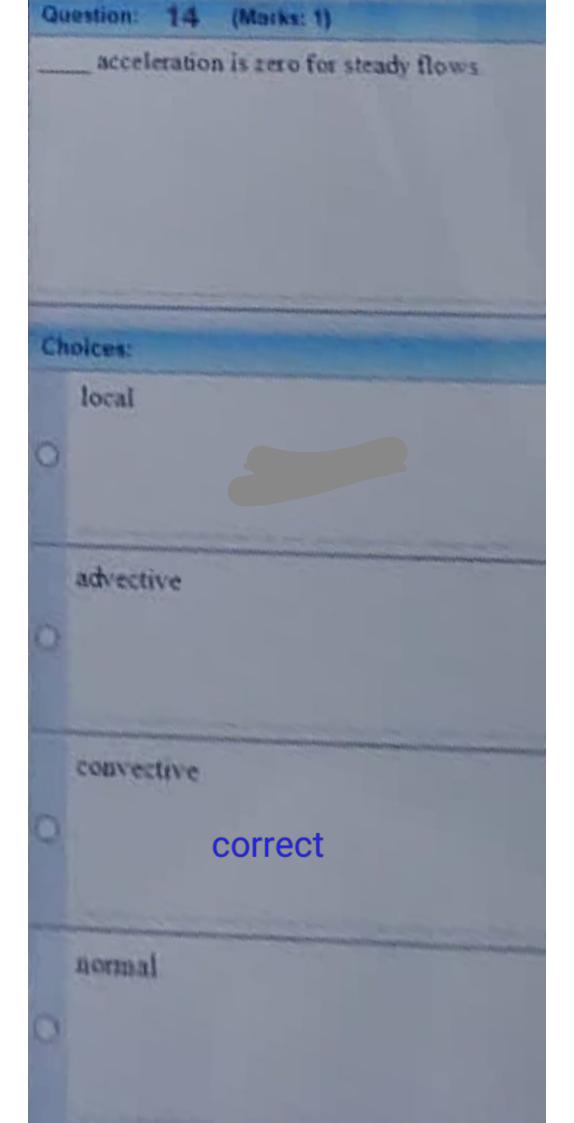
Choices

numerical solutions

correct

analytical solutions





# Question: 17 (Marks: 1) The Reynolds transport theorem provides the link between the system and approaches. Cholces: control volume correct control mass control surface control area

Question: 16 (Marks: 1)

 $\vec{\omega} = \underline{\qquad}$  is rotation vector and  $\vec{\zeta}$  is vorticity vector.

psi/2

# Chaices:

correct

$$\vec{w} = 3\vec{\xi}$$

Question: 15 (Marks: 1)

Which one of the following represent local part of pressure (P)?

Choices:

Which one of the following represent local part of pressure (P)?

# Choices:

 $(\vec{v}.\vec{v})P$ 

(P. P) P

dP.

THE PROPERTY OF THE PROPERTY O								
0	luestion.	22	(Marks: 1)					
F	he Berno	dli eq	ation is valid in	regions of	flow			
O	nolces:							
0	steady,	incom	pressible	correct				
	sasteach	inco	npressible					
	steady, c	omia c	suble					
	unsteady	samp	ressible					

Question, 26 (Marke I) For some extensive property B or its corresponding intensive property b, the material derivative is given **Choices** 

Question: 29 (Marks: 3)

What is stagnation pressure? Write it mathematically

Answers

Question: 30 (Marks: 5)

Determine the density, and mass of gasoline in a vectangle-shaped container whose dimensions are 2 m × 3 m × 4 m at 100 kPa and 0°C and specific gravity is 0.7

Answer:

Overtion: 31 (Marks: 5)

Consider the following steady, two dimensional velocity field given as  $V = (u, v) = v^2 i + 3x^2 j$ . Find an analytical expression for the flow streamlines

Answer

Little Midelimures facilities Question: 31 (Marks: 5) Consider the following steady, two dimensional velocity field given as  $V = (a, v) = y^2 i +$ 3x2j. Find an analytical expression for the flow streamlines. Answer

