

***** EXAMINATION *****

TIDAL HYDRAULICS

1. **An area of interaction between salt and fresh water is**
 - a) an estuary
 - b) a swamp
 - c) a pond
 - d) a sea water harbor

2. **Estuaries are classified by**
 - a) topography
 - b) salinity structure
 - c) both a and b
 - d) None of the above

3. **Coastal plain estuaries are also known as**
 - a) environmental habitats
 - b) drowned river valleys
 - c) protected habitats
 - d) Any of the above

4. **Estuaries formed by glacial erosion are known as**
 - a) prisms
 - b) fjords
 - c) inlets
 - d) sounds

5. **Estuaries could be formed by**
 - a) volcanic eruptions
 - b) faulting
 - c) landslides
 - d) Any of the above

6. **Saline water enhances**
 - a) wildlife parks
 - b) acidic soil productivity
 - c) flocculation of suspended clay particles
 - d) Any of the above

7. **Tidal forces vary**
- a) directly with the cube of the distance between bodies
 - b) inversely with the cube of the distance between bodies
 - c) directly with the square of the distance between bodies
 - d) inversely with the square of the distance between bodies
8. **Tides are**
- a) diurnal
 - b) semi-diurnal
 - c) mixed
 - d) Any of the above
9. **A lunar day is**
- a) 12 hours
 - b) 24 hours
 - c) 24.84 hours
 - d) 48 hours
10. **A very long wave originating from a disturbance**
- a) in the seafloor is a tsunami
 - b) in the seafloor is a standing wave
 - c) in the seafloor is a natural waveform
 - d) None of the above
11. **Winds are the result of**
- a) changes in barometric pressure
 - b) volcanic actions
 - c) earthquake actions
 - d) Any of the above
12. **Seiches lose their energy because of**
- a) heat
 - b) cold
 - c) frictional forces
 - d) Any of the above
13. **Storm surges are caused by**
- a) wind setup
 - b) wave setup
 - c) air pressure drop
 - d) All of the above
14. **Subsidence occurs because of**
- a) withdrawal of oil
 - b) withdrawal of natural gas
 - c) withdrawal of water
 - d) Any of the above

15. **The particle size distribution of cohesionless materials**
- a) is determined by flocculation
 - b) is determined by sieve analysis
 - c) is determined by coagulation
 - d) is determined by filtration
16. **The total rate of sediment transport is**
- a) the sum of contributions from bed load and suspended load
 - b) the contribution from bed load
 - c) the contribution from suspended load
 - d) the contribution from suspended load minus bed load
17. **Sediment properties depend on the**
- a) type of sediment
 - b) the fluid
 - c) and the flow condition
 - d) All of the above
18. **A test for characterizing sediment is**
- a) total nitrate concentration
 - b) total phosphate concentration
 - c) total salt concentration
 - d) All of the above
19. **Cohesive sediment transport processes that require**
- a) parameter characterization include settling and deposition
 - b) parameter characterization include consolidation
 - c) parameter characterization include erosion
 - d) All of the above
20. **Partial barriers at the entrance to channels are**
- a) breakwaters
 - b) training dikes
 - c) salinity barriers
 - d) Any of the above

GEOGRAPHIC INFORMATION SYSTEMS
 GEOGRAPHIC INFORMATION CENTER
 PO BOX 5839
 MC ALLEN, TEXAS 78502-5839

1-800-522-0139
 kh@acnet.net
 Copyright 2010

*** ANSWER SHEET *** U415 TIDAL HYDRAULICS	<u>STATE BOARD</u>	<u>COURSE NO.</u>	<u>VALUE</u>
			8 PDH
Office Use Only			

FILL IN ONE BOX FOR EACH ANSWER.

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

I hereby certify that I studied the course materials, and the above answers are my own. No one has helped me to complete this exam.

 Signature Date

 Printed or typed name

 Seal or Number

**GEOGRAPHIC INFORMATION SYSTEMS
GEOGRAPHIC INFORMATION CENTER
PO BOX 5839
MC ALLEN, TEXAS 78502-5839**

**(800) 522-0139
kh@acnet.net
Copyright 2010**

Name _____

Company _____

Address _____

City _____ **State** _____ **Zip** _____

Telephone _____ **E-Mail** _____

Fax _____ () **24-Hour Fax**

() **Yes** () **No** **If fax and telephone are the same number, shall we call first?**

Mail the certificates to above address ____ **check address** ____ **envelope address**

State + Specialty + PE Registration number (i.e. TX EE 12389) _____

State + Professional Land Surveying registration number _____

NC (North Carolina) + Specialty + PE Registration number _____

NC (North Carolina) + Professional Land Surveying registration number _____

Professional Affiliations _____

Return this page with your answer sheet and a check or money order for \$100 per course. Use one check for each registrant (in your company) taking one or more courses. We accept company checks (if they are your employer's). We do not accept third-party checks or checks outside of your city of residence. Using third-party checks that do not include your name or company name may invalidate your professional development hours being reviewed by an audit process. Add \$5 for same day processing and priority shipping.

Make checks or money orders payable to Geographic Information Systems.

