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**SET - 1** 

## III B. Tech II Semester Supplementary Examinations, November- 2017 DESIGN OF SOIL, WATER CONSERVATION AND FARM STRUCTURES

(Agricultural Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B)

- 2. Answering the question in **Part-A** is compulsory
- 3. Answer any THREE Questions from Part-B

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## PART -A

1	a) b)	Give the design criteria for temporary gully control structures. Give functional uses of drop spillways.	[4M] [4M]
	c)	What are the limitations of using Chute Spillways?	[3M]
	d) e) f)	Write short notes on Pressure Aqueducts. What are different types of irrigation outlets commonly used in India? What are different types of farm fences?	[4M] [3M] [4M]
<u>PART –B</u>			
2	a)	Briefly explain about permanent gully control structures.	[8M]
	b)	Explain about different types of flows in open channel.	[8M]
3	a)	Explain about runoff flow measurement using Parshall Flume along with the advantages.	[8M]
	b)	Discuss about Hydraulic design of drop spillways.	[8M]
4	a) b)	Explain about the components of a Chute spillway with the help of a diagram. Briefly explain about different types of farm ponds.	[8M] [8M]
5	a) b)	Explain about different types of canal falls. Discuss about the design of Siphon well drop.	[8M] [8M]
6	<ul><li>a)</li><li>b)</li><li>c)</li></ul>	What are Under Sluices? What are their functions? Differentiate between a weir and barrage. Briefly explain about different types of weirs.	[5M] [5M] [6M]
7	a) b)	Explain about the design and construction of Silo. What are different rural grain storage structures? What are the requirements of a good grain storage structure?	[8M] [8M]

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