

- Q.27 What are the sources of water for rural water supply scheme? (CO6)

Q.28 Give brief description of maintenance of hand pump. (CO6)

Q.29 Explain the principle of operation and construction of hand pump? (CO6)

Q.30 Describe one suitable method/technology for disposal of human excreta. (CO7)

Q.31 Describe the constructional of a low cost toilet. (CO7)

Q.32 Give the classification of rural roads. (CO8)

Q.33 Describe the procedure for stabilizations of soil with soft aggregate for construction of all weather cheap roads. (CO8)

Q.34 Explain constructional details of a pre-fabricated ferrocement toilet. (CO9)

Q.35 Write a short note on Ferro-cement storage tank. (CO9)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Enlist the names of building materials locally available in the rural areas of your region. Give their application in construction of rural houses. (CO2)

Q.37 Describe the concept of low cost housing. Enlist various method of cost reduction? (CO5)

Q.38 Explain the method of preparing manually pressed thatched panel. How the water treatment is given to the thatched roof? (CO4)

(Note: Course outcome/CO is for office use only)

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6th Sem / Civil Engineering Subject:- Rural Technology

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory
(10x1=10)

- Q.1 Low cost construction rural areas can be achieved by (CO1)

 - a) Locally available material and substitute technology options
 - b) Imported building component and technology
 - c) Pre-fabricated house building activities
 - d) Advance structural design using synthetic building materials

Q.2 National rural development institute is situated at (CO1)

 - a) Delhi b) Shimla
 - c) Hyderabad d) Mumbai

Q.3 The use of locally available material carries importance due to (CO2)

 - a) The rural poor cannot afford modern material and scientific technique
 - b) Adverse environmental impact and scare building material.
 - c) Higher cost and imported technology
 - d) Its beyond the reach of poor people

Q.4 Thatched roofs are constructed by using (CO4)

 - a) Bamboo sticks and polythene sheets
 - b) Coconut leaves and rice / wheat straw
 - c) Local palmyra leaves and reeds
 - d) All of the above

Q.5 The life of the thatched roofs is increased by (CO4)

 - a) Use of fire retardant and water proofing treatment

- b) Using improved thatched panels
 c) Introducing reinforced steel bars-applying
 d) All of the above
 Q.6 A low cost house is one which is (CO5)
 a) Functionally and environmentally habitat
 b) Constructed by locally available material & substitute technology option.
 c) Constructed by using RCC frame structure
 d) Constructed by imported building material and construction techniques
 Q.7 Chlorination is necessary for (CO6)
 a) Disinfection of surface source water
 b) Disinfection of sub surface source water
 c) None of the above two
 d) Both (a) and (b)
 Q.8 Rural sanitation involves (CO7)
 a) Disposal of waste and human excreta
 b) Surface waste water disposal
 c) Treatment of sewage disposal
 d) Recycling of waste water
 Q.9 Maintenance of rural road are necessary for (CO8)
 a) Avoiding deterioration of low cost roads
 b) Increasing the durability of roads
 c) Utilizing the annual budget
 d) Formulating and maintaining survey records
 Q.10 The main reasons for the failure of hand pumps are (CO9)
 a) No standardization of components used
 b) No maintenance after installation
 c) Lowering the water table
 d) All of the above

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Concept of rural technology includes _____ technology. (CO1)

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- Q.12 PURA scheme is related to providing _____ in rural areas. (CO2)
 Q.13 The use of locally available material carries importance due to the rural poor cannot afford _____ and _____? (CO2)
 Q.14 Thatched roofs are constructed by using _____ Sticks & _____ sheets (CO4)
 Q.15 A low cost house is one which is constructed by _____ and _____? (CO5)
 Q.16 The life of the thatched roofs is increased by using _____? (CO4)
 Q.17 Chlorination is necessary for disinfection of _____ water (CO6)
 Q.18 Rural sanitation involves Disposal of _____ and _____? (CO7)
 Q.19 Maintenance of rural road are necessary for avoiding deterioration of _____? (CO8)
 Q.20 Ferro cement products offer _____ components with weight. (CO9)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What do you understand by cost effective and environmental friendly technology. (CO1)
 Q.22 Explain various method used for increasing the strength and durability of building structures. (CO2)
 Q.23 Describe the suitability of adopting the construction of mud houses. (CO3)
 Q.24 Explain the preparation of NEM (Non-Erodible mud plaster). (CO3)
 Q.25 Explain how the fire retardant is given on the thatched roof? (CO4)
 Q.26 Explain various criteria for planning and designing a cluster of rural areas. (CO5)

(3)

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