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Roll No. .... 030734

**3rd Sem / Branch : Civil Engineering**

## **Subject:- CONSTRUCTION MATERIALS**

Time : 3Hrs.

M.M.: 100

## **SECTION-A**

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

- Q.1 Specific Gravity for most of the building stones lies between (CO1)  
a) 1.5 to 2.0      b) 2.0 to 2.5  
c) 2.5 to 3.0      d) 3.0 to 3.5

Q.2 Which of the following has more fire resisting characteristics? (CO1)  
a) Granite      b) Marble  
c) Compact sand stone d) Lime stone

Q.3 What is efflorescence? (CO-2)  
a) Formation of white patches on the brick surface due to insoluble salts in the brick clay  
b) Impurities in the brick clay which show after burning  
c) Deformation of brick due to exposure to rain  
d) Swelling of brick due to presence of carbonaceous matter and gas

Q.4 Pug mil is used for (CO-2)  
a) Preparation of clay b) Drying of Bricks  
c) Burning of Bricks d) Moulding of Bricks

(1) 180734/170734/120734/  
                  030734

- Q.5 The temperature range in a cement kiln is (CO3)  
a)  $500^{\circ}\text{C}$  to  $1000^{\circ}\text{C}$  b)  $1000^{\circ}\text{C}$  to  $1200^{\circ}\text{C}$   
c)  $1300^{\circ}\text{C}$  to  $1500^{\circ}\text{C}$  d)  $1600^{\circ}\text{C}$  to  $2000^{\circ}\text{C}$

Q.6 The chief ingredients of a paint is (CO-5)  
a) Drier b) Pigment  
c) Oil d) Alcohol

Q.7 The extenders are added to the paint body to (CO-5)  
a) Reduce the viscosity  
b) Give colour  
c) Accelerate the process of drying  
d) Increase the volume

Q.8 Percentage of carbon content in mild steel is (CO-6)  
a) Less than 0.25 b) Between 0.25 and 0.7  
c) Between 0.7 and 1.5 d) Greater than 1.5

Q.9 Putty is made up of (CO-7)  
a) Red lead and linseed oil  
b) Powered chalk and raw linseed oil  
c) Zinc oxide and boiled linseed oil  
d) White lead and Turpentine

Q.10 Bureau of Indian Standards classifies bitumen into grades 65/25, 85/40etc. The first and second numbers respectively refer to (CO-7)  
a) Softening point and penetration  
b) Flash point and penetration  
c) Flash point and softening point  
d) Penetration and softening point.

(2) 180734/170734/120734/  
030734

## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Dynamite is.....times powerful than gun powder. (CO-1)

Q.12 The process of taking out atones from natural rock bed is known as quarrying. (True/ False) (CO1)

Q.13 Machine moulded bricks have no frog. (True/ False) (CO-2)

Q.14 .....No. of bricks are required for one cubic meter of masonry. (CO-2)

Q.15 The initial setting time of OPC should not be less than.....minutes. (CO-3)

Q.16 Wood from .....trees is used for engineering purposes. (CO-4)

Q.17 The constituent of a paint which imparts colour to it, is called..... (CO-5)

Q.18 The principle ore of aluminium is..... (CO-6)

Q.19 The principal consisting of polyvincyl chloride are known as.....pipes (CO-7)

Q.20 Plastics are organic substances which are prepared out of..... (CO-7)

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write a short note on physical classification of rocks. (CO1)

Q.22 What are the requirements of a good building stone? (CO-1)

Q.23 Describe any five characteristics of good bricks. (CO2)

Q.24 Write a short note on interlocking tiles. (CO2)

Q.25 What are the main constituents of Portland cement? Explain any one of them. (CO-3)

Q.26 Write the properties and uses of white cement. (CO-3)

Q.27 What are the characteristics of a good building timber? (CO4)

Q.28 Enlist the various common market forms of timber used in India. (CO-4)

Q.29 What are the characteristics of a good varnish? (CO-5)

Q.30 Write a short note on water paints. (CO-5)

Q.31 Write the use of stainless steel as a construction material (CO-6)

Q.32 Differentiate between ferrous and non-ferrous materials. (CO-6)

Q.33 What are sound insulating materials? (CO-7)

Q.34 Write a short note on PVC Panelling. (CO-7)

Q.35 Write a short note on Fire resisting materials. (CO-7)

## **SECTION-D**

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

Q.36 Explain the working of Bull's Trench Kiln with the help of diagram. (CO2)

Q.37 Explain the process of manufacture of cement with the help of flow diagram. (CO3)

Q.38 Explain the process of artificial seasoning with the help of a diagram and write the advantage it. (CO4)