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Roll No.

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5th Sem / Branch : Civil, Constr. Mgmt., Civil Engg.
(Spl. Highway Engg.)
Sub.: Highway Engineering

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The privilege to use road by the traffic is called (CO1)
a) Carriage way b) Right of way
c) Foot path d) Express way
- Q.2 A vertical curve with convexity upward is given to (CO2)
a) Summit curve b) Valley curve
c) Crest curve d) Both of the above
- Q.3 Super elevation is also called (CO2)
a) Banking b) Widening
c) Camber d) Gradient
- Q.4 Softening point test is conducted by _____ apparatus. (CO4)
a) Ring & Ball b) Penetrometer
c) Hydrometer d) Viscometer
- Q.5 A seal coat consists of (CO5)
a) Sand bitumen layer
b) Bitumen aggregates

(1)

180752/170752/
120752/030752

- c) Asphaltic concrete
d) Open graded aggregates
- Q.6 Soil compaction _____ dry density of soil. (CO6)
a) Decrease b) Increase
c) Both (a) & (b) d) None
- Q.7 The removal of rain water from surface of the road is termed as (CO8)
a) Sub surface drainage b) Pipe drain
c) Side drain d) Drainage
- Q.8 Culvert is a small road bridge having maximum span of _____. (CO7)
a) 6 m b) 0.6 m
c) 10 m d) None
- Q.9 The First modern aeroplane invented by wright brother. (CO10)
a) 1947 b) 1946
c) 1945 d) 1948
- Q.10 _____ a area provided beyond the end of stop way (CO10)
a) Carriage way b) Clearway
c) Apron d) Taxiway

SECTION-B

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

- Q.11 IRC was set up in the year _____ (CO1)
Q.12 Camber in the road is provided for _____ (CO2)
Q.13 Which survey is accurate and faster _____ (CO3)

(2)

180752/170752/
120752/030752

- Q.14 _____ test is used to evaluate the strength of soil subgrade. (CO4)
- Q.15 Flexible pavement have low flexural strength/high flexural strength. (CO5)
- Q.16 Hair pin bend is located on hill side having _____ slope. (CO6)
- Q.17 Culvert is larger in proportion to a bridge. (True/False) (CO7)
- Q.18 Ruts are formed in _____ pavements (CO8)
- Q.19 _____ is an economical combination of best hauling and best loading machine. (CO10)
- Q.20 _____ A strip is used for landing and takeoff of aircrafts. (CO10)

SECTION-C

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

- Q.21 State IRC classifications of roads. (CO1)
- Q.22 Write the significance of superelevation. (CO2)
- Q.23 Explain obligatory point for alignment of road in plain area. (CO3)
- Q.24 Write the difference between tack coat and seal coat. (Co5)
- Q.25 Define Asphalt, cutback and emulsion. (CO5)
- Q.26 Explain the meaning of landslide. What are the causes of landslides? (CO6)
- Q.27 Define Soil Erosion. What are the important methods to controls soil erosion? (CO6)

(3) 180752/170752/
120752/030752

- Q.28 Write a short note on cross drainage work. (CO7)
- Q.29 What you understand by CBR ratio.. Explain. (CO4)
- Q.30 Differentiate flexible and rigid pavement with neat sketch. (CO5)
- Q.31 State common types of failure in concrete pavement. (Co8)
- Q.32 How the maintenance of cement concrete road is carried out? (CO8)
- Q.33 Explain the use of road paver and road finisher in road construction. (CO9)
- Q.34 Write a note on : Hanger and Apron. (CO10)
- Q.35 What are the important factors to be considered while selecting a site for an airports. (CO10)

SECTION-D

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

- Q.36 What are the different tests carried out to determine the properties of road aggregates? (CO4)
- Q.37 What do you mean by road pavement. What are the different types of road pavements? (CO5)
- Q.38 State the working and use of hot mix plant. Enlist measures to be taken while working in hot mix plant. (CO9)

Note : Course Outcome (CO) mentioned in the question paper is for official purpose only.

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