

# University of Mumbai

## Examination 2020

Program: T.E. (Civil) (REV. -2016) Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course code: CE C505 Course Name: **Transportation Engineering - I**

Time: 1 hour

Max. Marks: 50

For the students:- All the Questions are compulsory and carry equal marks .

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| Q1.       | Roads are classified in 3 categories in _____ road plan  |
| Option A: | Nagpur   |
| Option B: | Bombay   |
| Option C: | Nasik  |
| Option D: | Delhi  |
| Q2.       | Rectangular and block pattern is adopted in  |
| Option A: | South Mumbai   |
| Option B: | Pune   |
| Option C: | Chandigarh   |
| Option D: | Delhi  |
| Q3.       | The SSD for a design speed of 50 Kmph for a two lane road with coefficient of friction of 0.37 in meter is |
| Option A: | 61.3   |
| Option B: | 81.7   |
| Option C: | 123.7  |
| Option D: | 161.6  |
| Q4.       | Head light sight distance for a one way road is considered equal to  |
| Option A: | Overtaking sight distance  |
| Option B: | Stopping sight distance  |
| Option C: | Intermediate sight distance  |
| Option D: | Compromising sight distance  |
| Q5.       | The road connecting different states is designated as  |
| Option A: | National Highway   |
| Option B: | State Highway  |
| Option C: | District Road  |
| Option D: | Village Road   |
| Q6.       | Reaction time depends on   |
| Option A: | SSD  |
| Option B: | OSD  |
| Option C: | PIEV   |
| Option D: | Curves   |

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| Q7.       | Desire line diagram is found through                |
| Option A: | O & D Survey  |
| Option B: | Speed and Journey time survey                       |
| Option C: | Parking survey                                      |
| Option D: | Turning Movement count survey                       |
| Q8.       | Difference between Journey time and running time is |
| Option A: | Length  |
| Option B: | Delay   |
| Option C: | Speed   |
| Option D: | Volume  |
| Q9.       | Which is the correct relation                       |
| Option A: | $Q=K+V$   |
| Option B: | $Q=K/V$   |
| Option C: | $Q=K*V$   |
| Option D: | $Q=K-V$   |
| Q10.      | Tar is a by-product of _____                        |
| Option A: | Petroleum   |
| Option B: | Wood  |
| Option C: | Bitumen   |
| Option D: | Plastic   |
| Q11.      | Los Angeles testing machine is used to conduct      |
| Option A: | Shape test  |
| Option B: | Abrasion test                                       |
| Option C: | Impact test   |
| Option D: | Crushing test                                       |
| Q12.      | Soil test used for pavement design is               |
| Option A: | CBR   |
| Option B: | Shear test  |
| Option C: | Tri axial test                                      |
| Option D: | Compaction test                                     |
| Q13.      | Binding material used in WBM road is                |
| Option A: | Cement  |
| Option B: | Bitumen   |
| Option C: | Tar   |
| Option D: | Soil  |
| Q14.      | The load dispersion is assumed at an angle of _____ |
| Option A: | 45°   |
| Option B: | 60°   |
| Option C: | 75°   |
| Option D: | 90°   |

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| Q15.      | The heavy commercial vehicles are considered if their weight exceeds _____  |
| Option A: | 3.0 t   |
| Option B: | 4.0 t   |
| Option C: | 5.0 t   |
| Option D: | 6.0 t   |
| Q16.      | The load dispersion is assumed at an angle of _____   |
| Option A: | 45°   |
| Option B: | 60°   |
| Option C: | 75°   |
| Option D: | 90°   |
| Q17.      | The term 'a' denotes?   |
| Option A: | Radius of wheel   |
| Option B: | Radius of the area of contact   |
| Option C: | Radius of the equivalent area of contact  |
| Option D: | Radius of axle  |
| Q18.      | The layer not required in cement road is _____  |
| Option A: | Sub grade   |
| Option B: | Sub base  |
| Option C: | Base  |
| Option D: | Surface   |
| Q19.      | The radius of relative stiffness for a 20cm thick slab with $E = 3 \times 10^5 \text{ kg/cm}^2$ and poisson's ratio = 0.15, resting on a subgrade having modulus of $5 \text{ kg/m}^3$ is |
| Option A: | 10 cm   |
| Option B: | 320 cm  |
| Option C: | 100 cm  |
| Option D: | 80 cm   |
| Q20.      | The blockage of the longitudinal and cross drains leads to _____  |
| Option A: | Increase of water   |
| Option B: | Decrease of ground water  |
| Option C: | Stagnation  |
| Option D: | Floods  |
| Q21.      | The damage can be caused to a well-designed pavement in a hot region is by  |
| Option A: | Rain  |
| Option B: | Heat  |
| Option C: | Snow  |
| Option D: | Traffic   |
| Q22.      | The structural evaluation can't be evaluated by _____   |

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| Option A: | Dynalect  |
| Option B: | Road rater  |
| Option C: | FWD   |
| Option D: | Bump integrator   |
|           |   |
| Q23.      | The sum of 15 deflection is 100, find mean deflection.      |
| Option A: | 3.33  |
| Option B: | 4.44  |
| Option C: | 6.66  |
| Option D: | 1.5   |
|           |   |
| Q24.      | Which is not part of surface drainage                       |
| Option A: | Camber  |
| Option B: | GSB layer   |
| Option C: | Side drainage   |
| Option D: | Cross drainage  |
|           |   |
| Q25.      | Distance between two points for BBD should not be more than |
| Option A: | 1000 m  |
| Option B: | 500 m   |
| Option C: | 100 m   |
| Option D: | 50 m  |