

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**II B.Tech. II Sem., II Mid-Term Examinations, April – 2014****KINEMATICS OF MACHINERY****Objective Exam****Name:** _____ **Hall Ticket No.**

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

1. The size of cam depends on []
a) Base circle b) pitch circle c) prime circle d) pitch curve
2. In radial cam, the follower moves []
a) In a direction perpendicular to cam axis b) in a direction parallel to cam axis
c) In any direction irrespective of cam axis d) Along the cam axis
3. Due to slip of belt the velocity ratio of belt drive []
a) Decreases b) increases c) does not change d) none of the above
4. The power transmitted by belt, is maximum when the maximum tension in the belt (T) is equal to []
a) T_c b) $2T_c$ c) $3T_c$ d) $4T_c$
5. The velocity of belt for maximum power is []
a) $\sqrt{T/3m}$ b) $\sqrt{T/4m}$ c) $\sqrt{T/5m}$ d) $\sqrt{T/6m}$
6. In simple gear train if the number of idle gears is odd then the motion of driven gear will []
a) Be same as that of driving gear b) Be opposite as that of driving gear
c) Depend upon the number of teeth as driving gears d) None of the above
7. A differential gear in an automobile is a []
a) Simple gear train b) epicyclic gear train c) compound gear train d) none of these
8. A differential gear in automobile is used to []
a) Reduce speed b) assist in changing speed c) provide jerk free movement of vehicle d) none
9. Spur gears are used to connect shafts []
a) Parallel to each other b) perpendicular to each other c) non parallel d) none
10. The type of gears are used to correct shafts perpendicular to each other []
a) Spur gears b) helical gears c) Devel gears d) none

Cont.....2

II Fill in the blanks:

11. _____ follower is used automobiles.
12. The follower extensively used in air craft engines is _____
13. For high speed engines cam and follower should move with _____
14. The centrifugal tension in belt have _____ power transmission.
15. When belt is stationary it is subjected to some tension is known as _____
16. The velocity ratio of two pulleys corrected by an open belt or crossed belt is _____ proportional to their diameter.
17. The axes of first gear and last gear are co-axial then the gear train is known as _____.
18. When there are more than one gear on a shaft is known as _____.
19. The gear with smaller number of teeth is known as _____.
20. The gear which converts rotary motion into linear motion is _____

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