AJEENKYA
D Y PATIL UNIVERSITY

End Term Examination (December 2019)

School: School of Engineering

Program: **B.Tech(MACT/CTIS/ITDS)**

Course:**Techniques of critical and logical thinking**

Course Code: **GLO118**

Semester:**V**

Max Marks: **30**

Duration (mins):**60 Minutes**

Instructions: Please read all questions carefully.

Each question carries 2 marks.

Please write correct option in the answersheet provided.

Please fill all the details in the answersheet carefully.

1. The average salary of all the workers in a workshop is Rs.8000. The average salary of 7 technicians is Rs.12000 and the average salary of the rest is Rs.6000. How many workers are there in the workshop ?

A. 21.　　　　　B. 22　　　　　C. 23　　　　　D. 24

2. A pipe X is 30 meters and 45% longer than another pipe Y. find the length of the pipe Y.

A. 20.12　　　B. 20.68.　　　C. 20　　　　　D. 20.5

3. Sunil purchases two books at Rs.300 each. He sold one book 10% gain and other at 10% loss. What is the total loss or gain in percentage?

A. 10% gain　　B. 1% loss.　　　C. No loss or no gain　　D. 1% gain

4. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and c in 198 seconds, all starting at the same point. After what time will they again at the starting point ?

A. 36 minutes 22 seconds.　　　B. 46 minutes 22 seconds

C. 36 minutes 12 seconds.　　　D. 46 minutes 12 seconds

5. Sandeep's age after six years will be three-seventh of his father's age. Ten years ago the ratio of their ages was 1 : 5. What is Sandeep's father's age at present?

A. 30 years　　B. 40 years.　　　C. 50 years　　　D. 60 years

6.A boat running downstream covers a distance of 16 km in 2 hours while for covering the same distance upstream, it takes 4 hours. What is the speed of the boat in still water?

A.4 km/hr   B.6 km/hr.   C.8 km/hr.   D.Data inadequate

7. One card is randomly drawn from a pack of 52 cards. What is the probability that the card drawn is a face card(Jack, Queen or King)

A. 1/13   B. 2/13.   C. 3/13   D. 4/13

8. Pipes A and B can fill a tank in 8 and 24 hours respectively. Pipe C can empty it in 12 hours. If all the three pipes are opened together, then the tank will be filled in:

A. 18 hr   B. 6 hr.   C. 24 hr   D. 12 hr

9. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. What is the actual distance travelled by him?

A. 80 km   B. 70 km.   C. 60 km   D. 50 km

10. The ratio between the speeds of two trains is 7 : 8. If the second train runs 400 km in 4 hours, What is the the speed of the first train?

A. 85 km/hr   B. 87.5 km/hr.   C. 90 km/hr   D. 92.5 km/hr

11. There are two divisions A and B of a class, consisting of 36 and 44 students respectively. If the average weight of divisions A is 40 kg and that of division b is 35 kg. What is the average weight of the whole class?

A. 38.25   B. 37.25.   C. 38.5   D. 37

12..Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:

A.36   B.45.   C.48   D.49

13. P and Q can complete a work in 20 days and 12 days respectively. P alone started the work and Q joined him after 4 days till the completion of the work. How long did the work last?

A. 5 days   B. 10 days   C. 14 days   D. 22 days

14. Present ages of Kiran and Syam are in the ratio of 5 : 4 respectively. Three years hence, the ratio of their ages will become 11 : 9 respectively. What is Syam's present age in years?

A. 28   B. 27   C. 26   D. 24

15. Murali purchased 20 dozens of toys at the rate of Rs. 375 per dozen. He sold each one of them at the rate of Rs. 33. Find out his profit percentage.

A. 3.5   B. 5.6.   C. 4.1   D. 3.4