

JADAVPUR UNIVERSITY

Ref no: EX/PHARM/T/113/2017(S)

B.PHARMACY 1st YEAR : Supplementary Exam 2017 (OLD)

(1st Semester)

Pharmaceutical Biology-I (OLD)

Time: 3 hours

Full Marks: 100

Group code: Pharm/T/113

Answer any ten of the following questions: (10 X 10 = 100)

1. What are Chromosomes? What do you mean by following terms: Homologous chromosome, Heterochromatin, Euchromatin, Karyotype. 2+ (2 X 4) = 10
 2. State the importance of each of the phases of Mitotic cell cycle i.e G1, S, G2, M. What are the characteristic feature of each phases/stages of the 'M' phase i.e Mitotic phase. 5 + 5 = 10
 3. What is the basic difference between karyokinesis and cytokinesis? What are the major changes occurring within the cell during the interphase? Draw and label the schematic outline of the First and second phase of meiotic cell division. (3 + 3 + 4 = 10).
 4. What are the different types of tissues of Animal. State their characteristics and importance with example. 10
 5. What is the main differences between chordate and non chordate? State the different phyllums that fall under each of them along with their characteristics feature. 3 + 7 + 10
 6. Virus has the property of both living and non living – state the characteristic that viruses do possess in support of the statement. What is bacteriophage? Name two virus and two bacteria which is pathogenic for humans and state the disease caused by them. 4 + 2 + 4 = 10
 7. What are the different parts of a typical root and what are the importance of each of those parts? Describe the following types of roots : prop root, Adventitious root . What are halophytes? 5 + 3 + 2 = 10
 8. State the pathogenic condition that arises due to Entamoeba histolytica infection. What are the mode of transmission of this disease. State the possible preventive measures that can be undertaken to combat against this pathogen. What is the difference between fertilized and unfertilized egg of *Ascaris lumbricoides*? 3 + 2 + 3 + 2 = 10
 9. Describe in details the life cycle stage of plasmodium parasite. What is the difference between early and late trophozoite stage of plasmodium parasite. 7 + 3 = 10
 10. What is polyploidy? How does polyploidy do happen? Give example of two common types of chromosomal aberration along with the example. State the biological importance of both DNA and RNA. 2+2+3+3 = 10
 11. Describe how oxygenated and deoxygenated blood flows through the circulatory system and get purified in heart. Where do bicuspid and tricuspid valve located and what are their functions? How the blood pressure of an individual is maintained by heart? 5 + 3 + 2 = 10
 12. What are the differences between aerobic and anaerobic mode of respiration? Give a short account on the gastrointestinal system. State few diseases caused due to malfunctioning of the gastrointestinal system. 2 + 5 + 3 = 10
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