

Gurudas College
Internal Assessment Examination, 2021
Subject-CEMG, SEM-V
Paper- DSE-A-2

Time: 30 Minutes

Full Marks: $1 \times 10 = 10$

Answer any ten questions

1. Silver or gold nanoparticles are used in which type of glasses?
(a) Coloured glass (b) Safety glass (c) Photosensitive glass (d) Borosilicate glass
2. Which of the raw materials are used in making of white cement?
(a) Iron oxide, limestone (b) White china clay, Iron free limestone (c) Transition metals, Silica
(d) none of these
3. Gypsum in manufacturing of Portland cement makes -
(a) the cement quick setting (b) retard the setting action of cement (c) imparts soundness to the cement (d) imparts strength to the cement
4. Titanium dioxide (TiO_2) has been a prime candidate for photoelectrodes in the application of a photo-electrochemical cell using solar energy. It is a -
(a) n-type semiconductor (b) p-type semiconductor (c) superconductor (d) none of these
5. Which of the following form of carbon is synthesized using PAN
(a) Graphene (b) Carbon nanotube (c) Carbon fibre (d) Fullerene
6. What are the essential secondary plant nutrients?
(a) Fe, Mn, B (b) Zn, Cu, Mg (c) Ca, Mg and S (d) none of these
7. Among the following which is NOT one of the components of a good fertilizer: -
(a) N (b) K (c) S (d) P
8. Which one among the following is an emulsifying agent?
(a) Chlorinated rubber (b) enamels (c) Lecithin in egg yolks (d) ZnS
9. Which one among the following is an example of a thinner?
(a) Triglyceryl phosphate (b) China clay (c) Guaicol (d) Turpentine oil
10. Which type of batteries is used in automobiles?
(a) Ni-Cd batteries (b) Solid-state batteries (c) Pb-storage batteries (d) Li-ion batteries
11. Which one among the following is a result from wax polishing?
(a) High gloss (b) Colour fading (c) Rough surface (d) High heat intolerance
12. Wilkinson's catalyst is used for
(a) Hydrogenation of olefins (b) Hydroformylation of olefins (c) Carbonylation of methanol (d) none of these
13. The example of phase transfer catalyst is
(a) $\text{RhCl}(\text{PPh}_3)_3$ (b) 18-Crown-6 ether (c) $\text{HRhCO}(\text{PPh}_3)_3$ (d) $[\text{Rh}(\text{CO})_2\text{I}_2]/\text{HI}$
14. An example of non-ferrous alloy is
(a) Brass (b) Nichrome (c) Stainless steel (d) Zircalloy
15. Gun powder is a mixture of
(a) Lead azide + Sulphur (b) NaNO_3 + Nitrocellulose (c) KNO_3 + Charcoal + Sulphur (d) none of these